REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	1	197

DISTRICT OF COLUMBIA

DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED

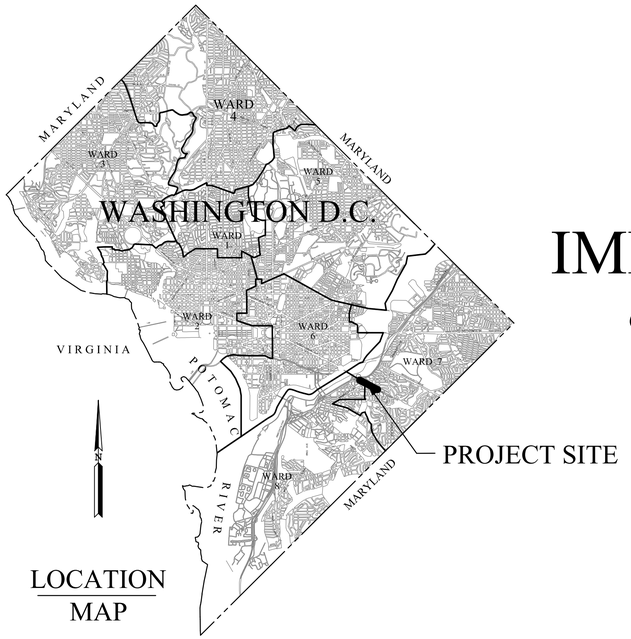
IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION

FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.

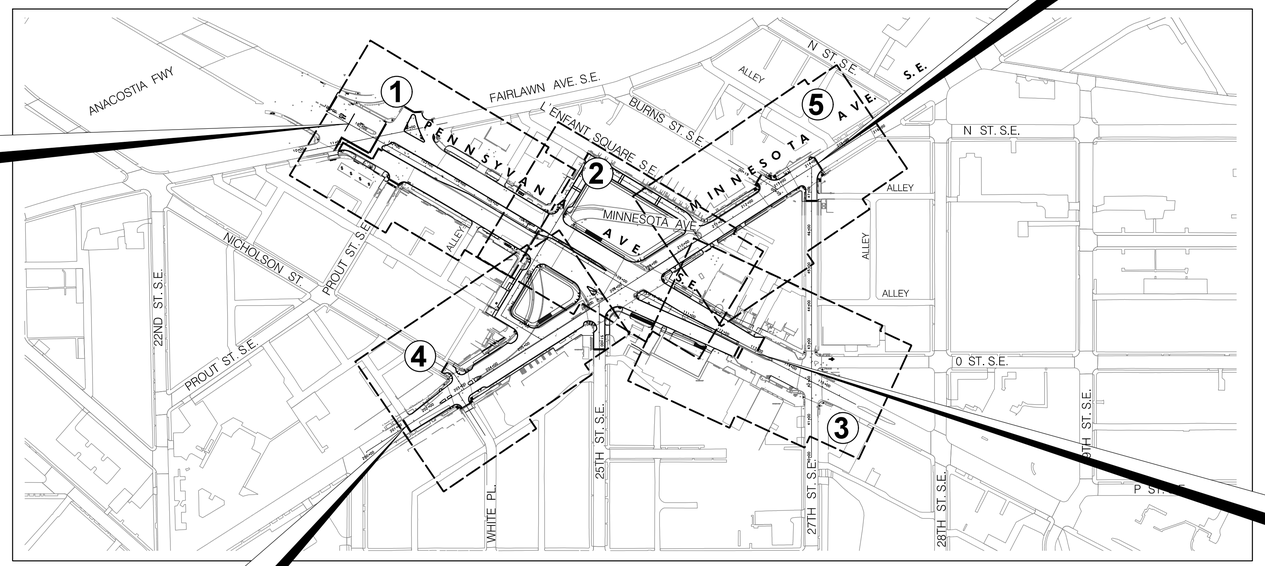
WARDS 7&8, WASHINGTON D.C.

FEDERAL AID PROJECT NO. STP-2016 (011)

LENGTH OF PROJECT = 2,526.85 FT = 0.48 MILES



LOCATION MAP



LIMIT OF WORK
–
PENNSYLVANIA AVE. S.E.
STA. 100+69.00

LIMIT OF WORK
–
MINNESOTA AVE. S.E.
STA. 214+16.30

LIMIT OF WORK
–
MINNESOTA AVE. S.E.
STA. 201+25.71

LIMIT OF WORK
–
PENNSYLVANIA AVE. S.E.
STA. 113+05.26

KEY MAP

200' 0 200' 400'
SCALE: 1" = 200'

PENNSYLVANIA AVE., S.E.

TRAFFIC DATA	
CONTROL OF ACCESS	NONE
ADT (2016)	52,300
ADT (2040)	59,000
DHV (2040)	4,360
DISTRIBUTION (%)	77/23
TRUCKS (%)	4.6
POSTED V (MPH)	30
DESIGN V (MPH)	35
FUNCTIONAL CLASSIFICATION = PRINCIPAL ARTERIAL	

MINNESOTA AVE., S.E.

TRAFFIC DATA	
CONTROL OF ACCESS	NONE
ADT (2016)	15,800
ADT (2040)	17,800
DHV (2040)	1,560
DISTRIBUTION (%)	60/40
TRUCKS (%)	7.8
POSTED V (MPH)	25
DESIGN V (MPH)	30
FUNCTIONAL CLASSIFICATION = MINOR ARTERIAL	

100% SUBMITTAL
SEPTEMBER 26, 2018

PRAVIN N. SHELADIA — No. 6840 — REGISTERED PROFESSIONAL ENGINEER — DISTRICT OF COLUMBIA

SHELADIA ASSOCIATES, INC.
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Phone: 301-590-3939 Fax:301-948-7174
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DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL:

PROGRAM MANAGER IPMA /CHIEF, IPMA TEAM 4 WARD 7&8

APPROVED:

CHIEF TRANSPORTATION ENGINEER

TRANSPORTATION POLICY AND PLANNING ADMINISTRATION

DATE:

DEPT. OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR

DATE:

GN - 1

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\General\pGN-T001.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	2	197

INDEX OF DRAWINGS

DWG. NO.	SHEET NO.	TITLE
		GENERAL (GN)
1	GN - 1	TITLE SHEET / LOCATION MAP / DESIGN DATA
2	GN- 2	INDEX OF DRAWINGS - 1
3	GN - 3	INDEX OF DRAWINGS - 2
4	GN - 4	STANDARD SYMBOLS AND ABBREVIATIONS
5	GN - 5	GENERAL NOTES
6	GN - 6	SUMMARY OF QUANTITIES
7	GN - 7	INTERSECTION DETAILS - 1
8	GN - 8	INTERSECTION DETAILS - 2
9	GN - 9	INTERSECTION DETAILS - 3
		GEOMETRIC SHEETS (GS)
10	GS - 1	GEOMETRIC LAYOUT - 1
11	GS - 2	GEOMETRIC LAYOUT - 2
12	GS - 3	CONTROL TRAVERSE AND REFERENCE POINTS
		TYPICAL SECTIONS (HT)
13	HT - 1	EXISTING TYPICAL SECTIONS - 1
14	HT - 2	EXISTING TYPICAL SECTIONS - 2
15	HT - 3	EXISTING TYPICAL SECTIONS - 3
16	HT - 4	PROPOSED TYPICAL SECTIONS - 1
17	HT - 5	PROPOSED TYPICAL SECTIONS - 2
18	HT - 6	PROPOSED TYPICAL SECTIONS - 3
19	HT - 7	PROPOSED TYPICAL SECTIONS - 4
20	HT - 8	TYPICAL SECTION DETAILS
		EXISTING CONDITIONS (EX)
21	EX - 1	EXISTING CONDITION - 1
22	EX - 2	EXISTING CONDITION - 2
23	EX - 3	EXISTING CONDITION - 3
24	EX - 4	EXISTING CONDITION - 4
25	EX- 5	EXISTING CONDITION - 5
		EXISTING UTILITY (UT)
26	UT - 1	EXISTING UTILITY PLAN - 1
27	UT - 2	EXISTING UTILITY PLAN - 2
28	UT - 3	EXISTING UTILTY PLAN - 3
29	UT - 4	EXISTING UTILITY PLAN - 4
30	UT - 5	EXISTING UTILITY PLAN - 5
		ROADWAY (HD)
31	HD - 1	PAVEMENT PLAN - 1
32	HD - 2	PAVEMENT PLAN - 2
33	HD - 3	PAVEMENT PLAN - 3
34	HD - 4	PAVEMENT PLAN - 4
35	HD - 5	PAVEMENT PLAN - 5
36	HD - 6	PAVEMENT DETAILS - 1
37	HD - 7	PAVEMENT DETAILS - 2
38	HD - 8	PAVEMENT DETAILS - 3
39	HD - 9	PAVEMENT DETAILS - 4
		PROFILE (HP)
40	HP - 1	PAVEMENT PROFILE PENNSYLVANIA AVE. S.E., STA. 100+00 TO STA. 105+00
41	HP - 2	PAVEMENT PROFILE PENNSYLVANIA AVE. S.E., STA. 105+00 TO STA. 110+50
42	HP - 3	PAVEMENT PROFILE PENNSYLVANIA AVE. S.E., STA. 110+50 TO STA. 115+50
43	HP - 4	PAVEMENT PROFILE MINNESOTA AVE. S.E., STA. 201+00 TO STA. 206+50
44	HP - 5	PAVEMENT PROFILE MINNESOTA AVE. S.E., STA. 206+50 TO STA. 211+50
45	HP - 6	PAVEMENT PROFILE MINNESOTA AVE. S.E., STA. 211+50 TO STA. 214+16.30
46	HP - 7	PAVEMENT PROFILE L' ENFANT SQUARE S.E. , STA. 30+00 TO STA. 33+60.45
47	HP - 8	PAVEMENT PROFILE L' ENFANT SQUARE S.E. STA. 20+00 TO STA. 25+90.15

DWG. NO.	SHEET NO.	TITLE
		STORM DRAIN (SD)
48	SD - 1	STORM DRAINAGE PLAN - 1
49	SD - 2	STORM DRAINAGE PLAN - 2
50	SD - 3	STORM DRAINAGE PLAN - 3
51	SD - 4	STORM DRAINAGE PLAN - 4
52	SD - 5	STORM DRAINAGE PLAN - 5
53	SD - 6	STORM DRAINAGE PLAN - 6
54	SD - 7	STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE
55	SD - 8	STORM DRAIN STRUCTURES STANDARD DETAILS - 1
56	SD - 9	STORM DRAIN STRUCTURES STANDARD DETAILS - 2
57	SD - 10	STORM DRAIN STRUCTURES STANDARD DETAILS - 3
58	SD - 11	STORM DRAIN STRUCTURES STANDARD DETAILS - 4
		STORM DRAIN PROFILE (DP)
59	DP - 1	STORM DRAIN PROFILES - 1
60	DP - 2	STORM DRAIN PROFILES - 2
61	DP - 3	STORM DRAIN PROFILES - 3
62	DP - 4	STORM DRAIN PROFILES - 4
63	DP - 5	STORM DRAIN PROFILES - 5
		STORM WATER MANAGEMENT (SW)
64	SW - 1	STORM WATER MANAGEMENT NOTES - 1
65	SW - 2	STORM WATER MANAGEMENT NOTES - 2
66	SW - 3	SWM - BMP DESIGN SUMMARY TABLE
67	SW - 4	BIORETENTION PLAN & SECTIONS BMP-P13
68	SW - 5	BIORETENTION PLAN & SECTIONS BMP-P12 AND BMP-P15
69	SW - 6	BIORETENTION PLAN & SECTIONS BMP-M6
70	SW - 7	BIORETENTION PLAN & SECTIONS BMP-L4
71	SW - 8	BIORETENTION PLAN & SECTIONS BMP-NP1
72	SW - 9	BIORETENTION PLAN & SECTIONS BMP-L3 AND BMP-SP1
73	SW -10	BIORETENTION PLAN & SECTIONS BMP-L5 AND BMP-P1
74	SW - 11	BIORETENTION PLAN & SECTIONSBMP-L1 AND BMP-M5
75	SW - 12	PERMEABLE INTERLOCKING PAVER PLAN & SECTIONS BMP-NP2 AND BMP-SP2
76	SW - 13	BIORETENTION PLAN & SECTIONS BMP-P3 AND BMP-P20
77	SW - 14	BIORETENTION DETAILS
78	SW - 15	BIORETENTION DETAILS
79	SW - 16	BIORETENTION DETAILS
80	SW - 17	BIORETENTION DETAILS
81	SW - 18	BIORETENTION DETAILS
82	SW - 19	BIORETENTION DETAILS
		EROSION AND SEDIMENT CONTROL (ES)
83	ES - 1	EROSION AND SEDIMENT CONTROL PLAN - PHASE 1A, 1B
84	ES - 2	EROSION AND SEDIMENT CONTROL PLAN - PHASE 2A, 2B
85	ES - 3	EROSION AND SEDIMENT CONTROL PLAN - PHASE 3
86	ES - 4	EROSION AND SEDIMENT CONTROL PLAN - PHASE 4A, 4B, 4C, 4D, 4E, 4F & 4G
87	ES - 5	EROSION AND SEDIMENT CONTROL STANDARD NOTES
88	ES - 6	EROSION AND SEDIMENT CONTROL STANDARD DETAILS - 1
89	ES - 7	EROSION AND SEDIMENT CONTROL STANDARD DETAILS - 2
		MAINTENANCE OF TRAFFIC (MT)
90	MT - 1	MAINTENANCE OF TRAFFIC PHASE 1A
91	MT - 2	MAINTENANCE OF TRAFFIC PHASE 1B
92	MT - 3	MAINTENANCE OF TRAFFIC PHASE 2A
93	MT - 4	MAINTENANCE OF TRAFFIC PHASE 2B
94	MT - 5	MAINTENANCE OF TRAFFIC PHASE 3A
95	MT - 6	MAINTENANCE OF TRAFFIC PHASE 3B
96	MT - 7	MAINTENANCE OF TRAFFIC PHASE 3C
97	MT - 8	MAINTENANCE OF TRAFFIC PHASE 4A
98	MT - 9	MAINTENANCE OF TRAFFIC PHASE 4B
99	MT - 10	MAINTENANCE OF TRAFFIC PHASE 4C
100	MT - 11	MAINTENANCE OF TRAFFIC PHASE 4D
101	MT - 12	MAINTENANCE OF TRAFFIC PHASE 4E

DWG. NO.	SHEET NO.	TITLE
		MAINTENANCE OF TRAFFIC (MT)
102	MT - 13	MAINTENANCE OF TRAFFIC NOTES
103	MT - 14	MAINTENANCE OF TRAFFIC NOTES
		SIGNING AND PAVEMENT MARKING (PM)
104	PM - 1	SIGNING AND PAVEMENT MARKING PLAN - 1
105	PM - 2	SIGNING AND PAVEMENT MARKING PLAN - 2
106	PM - 3	SIGNING AND PAVEMENT MARKING PLAN - 3
107	PM - 4	SIGNING AND PAVEMENT MARKING PLAN - 4
108	PM - 5	SIGNING AND PAVEMENT MARKING PLAN - 5
109	PM - 6	SIGNING AND PAVEMENT MARKING DETAILS - 1
110	PM - 7	SIGNING AND PAVEMENT MARKING DETAILS - 2
111	PM - 8	SIGN SCHEDULE
		TRAFFIC SIGNAL (SG)
112	SG - 1	PENNSYLVANIA AVE SE & MINNESOTA AVE SE AND 25TH ST SE, TRAFFIC SIGNAL MODIFICATION
113	SG - 2	PENNSYLVANIA AVE SE & MINNESOTA AVE SE AND 25TH ST SE, TRAFFIC SIGNAL MODIFICATION
114	SG - 3	PENNSYLVANIA AVE SE & MINNESOTA AVE SE AND 25TH ST SE, CABLE ROUTING SCHEMATIC
115	SG - 4	PENNSYLVANIA AVE SE & MINNESOTA AVE SE AND 25TH ST SE, SCHEDULE AND QUANTITIES
116	SG - 5	PENNSYLVANIA AVE SE & MINNESOTA AVE SE AND 25TH ST SE, UTILITY PLAN
117	SG - 6	PENNSYLVANIA AVE SE AND L'ENFANT SQ SE TRAFFIC SIGNAL MODIFICATION
118	SG - 7	PENNSYLVANIA AVE SE AND L'ENFANT SQ SE TRAFFIC SIGNAL MODIFICATION
119	SG - 8	PENNSYLVANIA AVE SE AND L'ENFANT SQ SE CABLE ROUTING SCHEMATIC
120	SG - 9	PENNSYLVANIA AVE SE AND L'ENFANT SQ SE SCHEDULE AND QUANTITIES
121	SG - 10	PENNSYLVANIA AVE SE AND L'ENFANT SQ SE UTILITY PLAN
122	SG - 11	MINNESOTA AVE SE AND 27TH ST SE TRAFFIC SIGNAL MODIFICATION
123	SG - 12	MINNESOTA AVE SE AND 27TH ST SE CABLE ROUTING SCHEMATIC
124	SG - 13	MINNESOTA AVE SE AND 27TH ST SE UTILITY PLAN
125	SG - 14	PENNSYLVANIA AVE SE AND MINNESOTA AVE SE & 25TH ST SE EXISTING COMMUNICATION PLAN
126	SG - 15	PENNSYLVANIA AVE SE AND L'ENFANT SQ SE EXISTING COMMUNICATION PLAN
127	SG - 16	PENNSYLVANIA AVE SE AND MINNESOTA AVE SE & 25TH ST SE PROPOSED COMMUNICATION PLAN
128	SG - 17	PENNSYLVANIA AVE SE & L'ENFANT SQ SE PROPOSED COMMUNICATION PLAN
129	SG - 18	PENNSYLVANIA AVE SE AND MINNESOTA AVE SE & 25TH ST SE RWIS LOCATION PLAN
		LIGHTING (LT)
130	LT - 1	POLE AND CONDUIT LAYOUT 1
131	LT - 2	POLE AND CONDUIT LAYOUT 2
132	LT - 3	POLE AND CONDUIT LAYOUT 3
133	LT - 4	POLE AND CONDUIT LAYOUT 4
134	LT - 5	POLE AND CONDUIT LAYOUT 5
135	LT - 6	CIRCUIT SCHEMATICS 1
136	LT - 7	CIRCUIT SCHEMATICS 2
137	LT - 8	CIRCUIT SCHEMATICS 3
138	LT - 9	CIRCUIT SCHEMATICS 4
139	LT - 10	CIRCUIT SCHEMATICS 5
140	LT - 11	SINGLE LINE DIAGRAM, PANELBOARD SCHEDULE, AND DETAILS
141	LT - 12	LIGHTING PLAN PROPOSED STREETLIGHT POLE/LUMINAIRE INFORMATION
142	LT - 13	LIGHTING PLAN PROPOSED STREETLIGHT POLE/LUMINAIRE INFORMATION
		LANDSCAPE (LS)
143	LS - 1	NORTH SQUARE LANDSCAPE PLAN OVERALL
144	LS - 2	SOUTH SQUARE LANDSCAPE PLAN OVERALL
145	LS - 3	PLANTING PLAN A
146	LS - 4	PLANTING PLAN B
147	LS - 5	PLANTING PLAN C
148	LS - 6	PLANTING PLAN D
149	LS - 7	PLANTING PLAN E

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
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PROFESSIONAL ENGINEER

GN-2

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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

INDEX OF DRAWINGS – 1

DIVISION CHIEF
DATE
FILE
DWG. 2 OF 197

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Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	3	197

INDEX OF DRAWINGS

DWG. NO.	SHEET NO.	TITLE
		LANDSCAPE (LS) CONTINUED
150	LS - 8	PLANTING PLAN F
151	LS - 9	NORTH SQUARE HARDSCAPE PLAN OVERALL
152	LS - 10	NORTH SQUARE HARDSCAPE PLAN LAYOUT
153	LS - 11	NORTH SQUARE HARDSCAPE PLAN A
154	LS - 12	NORTH SQUARE HARDSCAPE PLAN B
155	LS - 13	NORTH SQUARE HARDSCAPE PLAN C
156	LS - 14	NORTH SQUARE HARDSCAPE PLAN D
157	LS - 15	SOUTH SQUARE HARDSCAPE PLAN OVERALL
158	LS - 16	SOUTH SQUARE HARDSCAPE PLAN LAYOUT
159	LS - 17	SOUTH SQUARE HARDSCAPE PLAN E
160	LS - 18	NORTH SQUARE FURNITURE PLAN
161	LS - 19	SOUTH SQUARE FURNITURE PLAN
162	LS - 20	PLANTING DETAILS
163	LS - 21	PLANTING DETAILS
164	LS - 22	HARDSCAPE DETAILS
165	LS - 23	HARDSCAPE DETAILS
166	LS - 24	PERGOLA DETAILS
167	LS - 25	FURNITURE DETAILS
168	LS - 26	STRUCTURAL SOIL DETAILS & SPECIFICATIONS
169	LS - 27	STRUCTURAL SOIL DETAILS & SPECIFICATIONS
170	LS - 28	GREEN INFRASTRUCTURE DETAILS
171	LS - 29	RETAINING WALL DETAILS
172	LS - 30	STREET TREE PLAN A
173	LS - 31	SHEET TREE PLAN B
174	LS - 32	STREET TREE PLAN C
175	LS - 33	STREET TREE PLAN F
		ROADWAY CROSS SECTIONS (HC)
176	HC - 1	PENNSYLVANIA AVENUE S.E. CROSS SECTIONS
177	HC - 2	PENNSYLVANIA AVENUE S.E. CROSS SECTIONS
178	HC - 3	PENNSYLVANIA AVENUE S.E. CROSS SECTIONS
179	HC - 4	PENNSYLVANIA AVENUE S.E. CROSS SECTIONS
180	HC - 5	PENNSYLVANIA AVENUE S.E. CROSS SECTIONS
181	HC - 6	PENNSYLVANIA AVENUE S.E. CROSS SECTIONS
182	HC - 7	PENNSYLVANIA AVENUE S.E. CROSS SECTIONS
183	HC - 8	PENNSYLVANIA AVENUE S.E. CROSS SECTIONS
184	HC - 9	MINNESOTA AVENUE S.E. CROSS SECTIONS
185	HC - 10	MINNESOTA AVENUE S.E. CROSS SECTIONS
186	HC - 11	MINNESOTA AVENUE S.E. CROSS SECTIONS
187	HC - 12	MINNESOTA AVENUE S.E. CROSS SECTIONS
188	HC - 13	MINNESOTA AVENUE S.E. CROSS SECTIONS
189	HC - 14	MINNESOTA AVENUE S.E. CROSS SECTIONS
190	HC - 15	L'ENFANT SQUARE S.E. CROSS SECTIONS (NORTH)
191	HC - 16	L'ENFANT SQUARE S.E. CROSS SECTIONS (NORTH)
192	HC - 17	L'ENFANT SQUARE S.E. CROSS SECTIONS (NORTH)
193	HC - 18	L'ENFANT SQUARE S.E. CROSS SECTIONS (SOUTH)
194	HC - 19	L'ENFANT SQUARE S.E. CROSS SECTIONS (SOUTH)
		SOIL BORING LOGS (SB)
195	SB - 1	SOIL BORING LOGS - 1
196	SB - 2	SOIL BORING LOGS - 2
197	SB - 3	SOIL BORING LOCATION PLAN

DISTRICT OF COLUMBIA
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DESIGNED BY M. T.
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PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 3 OF 197

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Tuesday, September 25, 2018 AT 11:24 AM

STANDARD SYMBOLS

- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORMDRAIN MANHOLE
- EXISTING COMBINED SANITARY & STORM MANHOLE
- EXISTING WATER MANHOLE
- EXISTING GAS, TELEPHONE, ELECTRIC MANHOLE
- EXISTING MANHOLE - UNKNOWN
- EXISTING WATER METER
- EXISTING WATER VALVE OR CUT-OFF
- EXISTING SANITARY SEWER VENT
- EXISTING SANITARY SEWER CLEANOUT
- EXISTING GAS METER
- EXISTING GAS VALVE OR CUT-OFF
- EXISTING GAS VENT
- EXISTING ELECTRIC METER
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE, GATE VALVE
- EXISTING UNDERDRAIN
- PROPOSED UNDERDRAIN
- EXISTING CATCH BASIN CONNECTION WITH DIRECTION OF FLOW
- PROPOSED CATCH BASIN CONNECTION WITH DIRECTION OF FLOW
- EXISTING SINGLE CATCH BASIN
- EXISTING DOUBLE CATCH BASIN
- EXISTING TRIPLE CATCH BASIN
- EXISTING SINGLE CATCH BASIN WITH DOUBLE THROAT ELONGATION
- EXISTING SINGLE CATCH BASIN WITH TRIPLE THROAT ELONGATION
- EXISTING SINGLE CATCH BASIN WITH GRATE
- EXISTING DOUBLE CATCH BASIN WITH GRATE
- PROPOSED SINGLE CATCH BASIN
- PROPOSED DOUBLE CATCH BASIN
- PROPOSED TRIPLE CATCH BASIN
- PROPOSED DUAL THROAT WATER QUALITY CATCH BASIN
- PROPOSED SINGLE CATCH BASIN WITH GRATE
- PROPOSED DOUBLE CATCH BASIN WITH GRATE
- EXISTING SANITARY SEWER, COMBINED SEWER, STORMDRAIN, WATER LINE LESS THAN 24"
- EXISTING SANITARY SEWER, COMBINED SEWER, STORMDRAIN, WATER LINE 24" OR GREATER
- EXISTING UNDERGROUND GAS, TELEPHONE, ELECTRIC LINE
- EXISTING SANITARY SEWER, COMBINED SEWER, STORMDRAIN, WATER LINE TO BE ABANDONED
- EXISTING UNDERGROUND GAS, TELEPHONE, ELECTRIC LINE TO BE ABANDONED
- EXISTING SANITARY SEWER, COMBINED SEWER, STORMDRAIN, WATER LINE TO BE REMOVED
- EXISTING UNDERGROUND GAS, TELEPHONE, ELECTRIC LINE TO BE REMOVED
- PROPOSED STORMDRAIN LINE WITH DIRECTION OF FLOW, LESS THAN 24"
- PROPOSED STORMDRAIN LINE WITH DIRECTION OF FLOW, 24" OR GREATER
- LIMIT OF FULL DEPTH PAVEMENT
- LIMIT OF MILLING AND RESURFACING
- EXISTING BUSH OR SHRUB
- EXISTING HEDGEROW
- EXISTING DECIDUOUS TREE, EVERGREEN TREE
- PROPOSED TREE
- EXISTING TREE STUMP
- EXISTING TREE TO BE REMOVED

- EXISTING TREE WITH TREE PROTECTION
- EXISTING WALL OR COPING
- PROPOSED WALL OR COPING
- EXISTING ELECTRIC VAULT
- EXISTING WIRE GUY ANCHOR
- EXISTING SIGN AND POST
- PROPOSED SIGN AND POST
- EXISTING PARKING METER
- EXISTING FIRE ALARM BOX
- EXISTING POLICE CALL BOX
- EXISTING TRASH/WASTE CAN
- EXISTING WHEELCHAIR/BICYCLE RAMP
- PROPOSED WHEELCHAIR/BICYCLE (TRUNCATED) RAMP
- EXISTING BOLLARD OR POST
- MAIL BOX
- LOCATION OF TEST BORING WITH NUMBER
- BENCH MARK WITH NUMBER
- TRAVERSE POINT OR CONTROL POINT
- BORING LOCATIONS
- STATION EQUATION
- REVISION WITH NUMBER
- EXISTING SPOT ELEVATION (AND/OR FEATURE)
- PROPOSED SPOT ELEVATION (AND/OR FEATURE)
- EXISTING BASELINE OR CENTERLINE
- PROPOSED BASE LINE
- PROPOSED CENTER LINE
- STATE LINE
- RIGHT-OF-WAY LINE
- BUILDING RESTRICTION LINE
- LOT LINE
- EXISTING FENCE (Indicate Type)
- PROPOSED FENCE (Indicate Type)
- EXISTING 3 SECTION TRAFFIC SIGNAL
- EXISTING 4 SECTION TRAFFIC SIGNAL
- EXISTING 5 SECTION TRAFFIC SIGNAL
- EXISTING LUMINAIRE AND SUPPORT ARM INDICATES DIRECTION OF LIGHT
- REMOVE INDICATED TRAFFIC SIGNAL OR STREETLIGHT UNIT
- EXISTING PEDESTRIAN SIGNAL
- EXISTING TRAFFIC SIGNAL CONTROLLER
- EXISTING TRAFFIC SIGNAL CABINET
- EXISTING SL/TS CONDUIT SL=STREETLIGHT, TS=TRAFFIC SIGNAL
- EXISTING #16 STREET LIGHT POLE
- EXISTING #16 STREET LIGHT POLE
- EXISTING TWIN 20 STREET LIGHT POLE/ 20' TRAFFIC SIGNAL
- EXISTING FIRE/EMERGENCY CALL BOX
- EXISTING PENDANT POLE
- EXISTING LIGHT POLE
- EXISTING LIGHT POLE
- PORPOSED LIGHT POLE

- NORTH ARROW
- PROPOSED WALK (Indicate Width and type)
- PROP. TOP CURB ELEVATION / PROP. BOTTOM CURB ELEVATION
- RESURFACING
- FULL DEPTH PAVEMENT
- CONCRETE DREIVEWAY/BUS PAD/SIDEWALK
- POROUS RUBBER SIDEWALK
- EXISTING BRICK SIDEWALK
- PROPOSED GREEN AREA (GRASS/FLOWER BED)
- EXISTING GREEN AREA (GRASS/PLANTER/FLOWER BED)
- EXPOSED AGGREGATE SIDEWALK
- DEMOLITION OF PAVEMENT

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	4	197

ABBREVIATIONS

AC	ASPHALT CONCRETE
ADT	AVERAGE DAILY TRAFFIC
AVE.	AVENUE
ASPH	ASPHALT
℄	BASELINE
B.M./ BM	BENCH MARK
B.C.	BOTTOM OF CURB
CB	CATCH BASIN
℄	CENTERLINE
CL.	CLEAR
CLR.	CLEARANCE
CO	CLEAN OUT
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONST. JOINT	CONSTRUCTION JOINT
C OF A	CONTROL OF ACCESS
COV.	COVER
D	DEGREE OF CURVE
D.C.	DISTRICT OF COLUMBIA
DHV	DESIGN HOURLY VOLUME
DIA.	DIAMETER
DWG./DWGS.	DRAWING/DRAWINGS
E	EAST COORDINATE
EL./ ELEV.	ELEVATION
ELEC.	ELECTRICAL
E.W.	EACH WAY
EX./ EXIST.	EXISTING
EXP. JT.	EXPANSION JOINT
FH	FIRE HYDRANT
FT.	FEET
H.C.	HANDICAP
HORZ.	HORIZONTAL
IN.	INCH
INV.	INVERT
LID	LOW IMPACT DEVELOPMENT
LT.	LEFT
L.V.C.	LENGTH OF VERTICAL CURVE
M.H.	MANHOLE
MIN.	MINIMUM
MAX.	MAXIMUM
N	NORTH COORDINATE
N.E.	NORTH EAST
NO./ NOS.	NUMBER / NUMBERS
N.W.	NORTH WEST
PL.	PLACE
PCC	PORTLAND CONCRETE CEMENT
P.C./PC	POINT OF CURVE
P.T./PT	POINT OF TANGENT
P.O.C.	POINT ON CURVE
POT	POINT ON TANGENT
PI	POINT OF INTERSECTION
PGL	PROFILE GRADE LINE
P/GL	PROFILE GROUND LINE
P/GE	PROFILE GRADE ELEVATION
P/C	POINT OF CROWN
PVC	POINT OF VERTICAL CURVE
PVT	POINT OF VERTICAL TANGENT
PROP.	PROPOSED
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RDWY.	ROADWAY
RD.	ROAD
RECON.	RECONSTRUCTION
RT.	RIGHT
R.O.W.	RIGHT-OF-WAY
SAN.	SANITARY
SECT.	SECTION
S.E.	SOUTH EAST
SHT.	SHEET
SQ.	SQUARE
ST.	STREET
STA.	STATION
STD.	STANDARD
STR.	STRUCTURE
S/W	SIDEWALK
S.W.	SOUTH WEST
T	TERRAIN
T.C.	TOP OF CURB
TEMP.	TEMPORARY
TRAV	TRAVERSE
TYP./TYP	TYPICAL
U.D.	UNDERDRAIN PIPE
V	DESIGN SPEED
VAR.	VARIES
WQS	WATER QUALITY STRUCTURE
WAMATA	WASHINGTON METORPOLITAN AREA TRANSIT AUTHORITY

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

GN-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

STANDARD SYMBOLS AND ABBREVIATIONS

DIVISION CHIEF
DATE
FILE
DWG. 4 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\General\pNS-P002_EDOBIA.DGN
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	5	197

GENERAL NOTES

GOVERNING SPECIFICATIONS

THE 2013 DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES; 2014 GREEN INFRASTRUCTURE STANDARDS SUPPLEMENTAL SPECIFICATIONS; 2015 STANDARD DRAWINGS; AND THE CONTRACT DOCUMENTS INCLUDING CONTRACT PLANS. SPECIAL PROVISIONS AND BID TABULATIONS ARE THE GOVERNING PROVISIONS APPLICABLE TO THIS PROJECT.

SCOPE OF WORK

THE CONTRACT INCLUDES INTERSECTION RECONFIGURATION, PAVEMENT, DRAINAGE, SIDEWALK, CURB & GUTTER, SWM, LID, STREETSCAPE, LANDSCAPING, SIGNAL,STREETLIGHT, SAFETY IMPROVEMENTS AND TWO PARKS LOCATED NORTH & SOUTH OF PENNSYLVANIA AVE.

THE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH THE ENGINEER AT ALL TIMES. NO COMPENSATION WILL BE MADE TO THE CONTRACTOR BY THE DEPARTMENT FOR WORK PERFORMED WITHOUT AUTHORIZATION FROM THE ENGINEER.

TOPOGRAPHIC MAPPING

PLANIMETRIC INFORMATION SHOWN IS BASED ON GROUND AND AERIAL SURVEY PROVIDED BY VIKA CAPITOL, LLC

BOUNDARY INFORMATION AND R.O.W. WIDTH SHOWN HEREON ARE FROM THE RECORDS OF THE OFFICE OF THE DC SURVEYOR

HORIZONTAL AND VERTICAL CONTROL

THE VERTICAL DATUM IS D.C. DEPT. OF TRANSPORTATION BASED ON BENCH MARK 10-124, TOP OF S.W. CORNER OF 1ST RISER 2ND STEP #2434 L'ENFANT SQ, SE; ELEVATION = 31.34.

COORDINATES FOR HORIZONTAL CONTROL SHOWN HEREON ARE BASED ON MARYLAND STATE PLANE NAD83

CONTRACTOR COORDINATION

THE CONTRACTOR IS HEREBY INFORMED THAT OTHER CONTRACTORS MAY BE WORKING IN THE AREA. THE CONTRACTOR SHALL COORDINATE HIS MAINTENANCE OF TRAFFIC AND SIGNING AND OTHER ACTIVITIES WITH OTHER CONTRACTORS TO AVOID ANY CONFLICT.

GRADING

ALL DISTURBED AREAS NOT ON THE STREET SHALL BE GRADED TO ACHIEVE POSITIVE DRAINAGE USING FILL MATERIAL AND SEEDED/SODDED ACCORDING TO THE SEED/SOD REQUIREMENTS SET FORTH IN THE SPECIFICATIONS.

EXISTING TREES

THERE ARE EXISTING MATURE TREES ALONG THESE STREETS. UNLESS OTHERWISE NOTED, ALL EXISTING TREES SHALL BE PRESERVED. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL WHILE WORKING AROUND THESE MATURE TREES. CONTRACTOR SHALL CONTACT THE DISTRICT DEPARTMENT OF TRANSPORTATION URBAN FORESTRY DIVISION AT (202) 671-5133 FOR ALL ISSUES CONCERNING TREES.

MAINTENANCE OF TRAFFIC

DURING ALL PHASES OF PROJECT OPERATIONS AND FOR THE DURATION OF THE CONTRACT, VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

IF THE CONTRACTOR DOES NOT WISH TO USE THE MAINTENANCE OF TRAFFIC PLANS (MOT) IN THE CONTRACT DRAWINGS, ALTERNATE MOT PLANS SHALL BE SUBMITTED TO THE CHIEF ENGINEER FOR APPROVAL.

UTILITIES

THE FOLLOWING UTILITIES ARE KNOWN TO HAVE FACILITIES IN THE CONTRACT AREA:

1. DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY (DC WATER)
   OFFICE OF ENGINEERING AND TECHNICAL SERVICES
   5000 OVERLOOK AVENUE, S.W.
   WASHINGTON D.C. 20032
   (202) 787-2442

2. WASHINGTON GAS
   DISTRIBUTION DEPARTMENT
   6801 INDUSTRIAL ROAD
   SPRINGFIELD, VIRGINIA 22151
   (703) 750-4556

3. POTOMAC ELECTRIC AND POWER COMPANY (PEPCO)
   701 NINTH STREET, N.W.
   WASHINGTON D.C. 20068
   (202) 872-2000

4. VERIZON COMMUNICATIONS
   935 V STREET, N.E.
   WASHINGTON D.C. 20018
   (202) 636-0246

THE EXISTENCE OF OTHER UTILITIES IS UNKNOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EXISTING UTILITIES AND PROVIDE TEMPORARY SUPPORT AS REQUIRED DURING CONSTRUCTION. FOR FULL INFORMATION REGARDING UTILITIES PROTECTION,SEE STANDARD SPECIFICATION 107.16 "PROTECTIVE UTILITY ALERT".

NOTIFY MISS UTILITY @ 1-800-257-7777 AT LEAST SEVENTY TWO HOURS PRIOR TO CONSTRUCTION.

THE LOCATIONS OF THE UTILITIES SHOWN ON 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 THE UTILITIES SHOWN ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL THE UTILITIES WELL IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS WHICH COULD DAMAGE THESE FACILITIES. IN 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 SAID UTILITY. ANY DAMAGE SUSTAINED TO THE UTILITIES ABOVE OR BELOW GROUND SHALL BE REPAIRED BY OR UNDER THE DIRECTION OF THE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR BACK FILL AN EXCAVATION AFFECTING SAID UTILITY WITHOUT FIRST RECEIVING PERMISSION FROM THE UTILITY OWNER.

WATER AND SEWER

WATER AND SEWER WORK SHALL CONFORM TO THE DC WATER STANDARD SPECIFICATIONS AND STANDARD DETAILS CONTAINED IN THE APPENDIX TO THE PROJECT SPECIAL PROVISIONS.

ALL EXISTING DC WATER ITEMS SUCH AS CATCH BASIN TOPS, MANHOLE FRAMES & COVERS AND WATER MAIN RELATED ASSEMBLIES THAT ARE NOT REUSED, SHALL BE SALVAGED AND RETURNED TO DC WATER.

WATER AND SEWER - CONTINUED

REMOVE FRAME AND COVER OF SEWER STRUCTURES AND WATER MAIN VALVE CASINGS TO BE ABANDONED AND FILL TO GRADE (SEE STANDARD SPECIFICATION 303 AND 313).

THE CONTRACTOR SHALL EXCAVATE AND LOCATE, VERTICALLY AND HORIZONTALLY, ALL EXISTING UTILITIES IN CLOSE PROXIMITY TO THE PROPOSED WATER AND SEWER FACILITIES.

THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AT ALL LOCATIONS WHERE EXISTING WATER MAINS ARE TO BE ALTERED. THE CONTRACTOR SHALL PROVIDE ADDITIONAL FITTINGS AND ADAPTORS NOT SHOWN ON DRAWINGS AS REQUIRED FOR A COMPLETE INSTALLATION.

THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL UTILITY COVER ELEVATION REQUIRED TO MEET NEW ROADWAY GRADE.

HORIZONTAL STATIONS AND OFFSETS FOR CATCH BASINS ARE TO THE CURB LINE AND ELEVATION PROVIDED IS THE TOP OF CURB ELEVATION.

HORIZONTAL STATIONS AND OFFSETS FOR MANHOLES ARE TO THE CENTERLINE OF STRUCTURE AND ELEVATION PROVIDED IS THE TOP OF COVER ELEVATION.

STREET LIGHTING

ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE DISTRICT OF COLUMBIA MUNICIPAL REGULATION CONSTRUCTION CODES (DCMR) OF 2013 AND THE NATIONAL ELECTRIC CODE (NEC).

ALL ELECTRICAL CONNECTIONS SHALL CONFORM TO (NEC) SECTION 110.14.

ALL WIRING METHODS AND MATERIAL SHALL CONFORM TO (NEC) SECTION 300 TO 398.

UTILITY RELOCATION

THE CONTRACTOR IS ALERTED THAT PORTIONS OF GAS LINE, POWER AND COMMUNICATION DUCTBANKS AND VAULTS MAY HAVE BEEN RECENTLY OR ARE BEING RELOCATED BY THEIR RESPECTIVE UTILITY COMPANY. THE CONTRACTOR SHALL OBTAIN INFORMATIONAL DRAWINGS FROM THE UTILITY COMPANIES AND COORDINATE SUCH RELOCATIONS AS PART OF THE WORK.

NO ADDITIONAL TIME WILL BE GRANTED FOR THIS WORK, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

EROSION AND SEDIMENT CONTROL

ALL EROSION AND SEDIMENT CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA, 2003. IF AN ONSITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.

ALL DEBRIS IS TO BE REMOVED FROM THE SITE.

STREETS SHALL BE SWEPT CLEAN AT ALL TIMES DURING EXCAVATION AND CONSTRUCTION.

ALL CATCH BASINS AND DRAIN AREAS SHALL BE PROTECTED DURING EXCAVATION AND CONSTRUCTION.

EROSION AND SEDIMENT CONTROL - CONTINUED

IF ANY CATCH BASIN OR DRAIN AREA BECOMES CLOGGED AS A RESULT OF EXCAVATION OR CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS CLEANING.

TREES TO BE PROTECTED SHALL BE FENCED AROUND THE TREE BOX. CHAIN LINK FENCE SHALL BE USED WITH A MINIMUM HEIGHT OF 6.0 FEET ABOVE EXISTING GRADE.

ALL STABILIZATION/SEEDING WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE 2003 DISTRICT OF COLUMBIA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RAINFALL EVENT. ANY REPAIR OR CLEAN UP NECESSARY TO MAINTAIN THE EFFECTIVENESS OF THE SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE IMMEDIATELY.

PRIOR TO REMOVING ANY SEDIMENT AND EROSION CONTROL MEASURES, APPROVAL MUST BE GIVEN FROM DOEE.

AMERICAN DISABILITY ACT NOTES:

1. ALL RAMPS, SIDEWALKS, DRIVEWAYS AND CONSTRUCTION WORK SHALL COMPLY WITH THE MOST CURRENT ADA STANDARDS AND GUIDELINES.
2. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT THE PROPOSED WORK WILL COMPLY WITH THE MOST CURRENT ADA STANDARDS PRIOR TO CONSTRUCTION.
3. CONTRACTOR'S PROJECT MANAGER SHALL CONTACT THE ADA COORDINATOR IN THE EVENT THAT FIELD MODIFICATIONS ARE NEEDED TO THE PROPOSED WORK FOR ADA COMPLIANCE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF ALIGNMENTS, STANDARDS, THAT MEETS THE MOST CURRENT ADA STANDARDS, PRIOR TO PLACING CONCRETE.

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

GN-5

SHELADIA ASSOCIATES, INC.
Engineers, Architects
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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

GENERAL NOTES

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 5 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\General\pGN-N001.E00BIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	6	197

SUMMARY OF QUANTITIES

ITEM CODE	DESCRIPTION	UNIT	QUANTITY TOTAL
000003	EMPLOYEE TRAINING	HR	5000
000506	UNASSIGNED SPECIAL ITEM -EACH - RELOCATE BUS SHELTERS	EACH	1
108002	MOBILIZATION	LS	1
108004	PROGRESS PHOTOGRAPHS	LS	1
108006	RECORD DRAWINGS AND AS-BUILT DRAWINGS	LS	1
108012	ENGINEER'S FIELD FACILITIES	LS	1
108016	FIELD LAYOUT	LS	1
201002	CLEAR AND GRUB - ACRE -	LS	1
202002	COMMON EXCAVATION	CY	8965
204002	EMBANKMENT FILL	CY	1350
204006	FLOWABLE FILL	CY	30
207002	TRENCH EXCAVATION AND BACKFILL	CY	2683
207004	TRENCH UNDERCUT EXCAVATION	CY	196
207006	GRAVEL FOR TRENCH UNDERCUT	CY	196
207008	BORROW TRENCH BACKFILL	CY	2077
209002	AGGREGATE BASE COURSE	CY	2300
209004	AGGREGATE BASE COURSE FOR LID #57 STONE	CY	690
209012	SANDY GRAVEL FILTER LAYER FOR LID	CY	81
212002	TEST PIT	EACH	20
213002	GEOSYNTHETIC STABILIZED SUBGRADE USING GRADED AGGREGATE BASE	CY	1700
300003	TRENCH EXCAVATION FOR LID FACILITIES	CY	1156
302002	VALVE CASING	EACH	5
303002	ABANDON VALVE CASING	EACH	5
305004	DUCTILE IRON PIPE, 6 INCH	LF	53
307004	RELOCATE FIRE HYDRANT	EACH	5
307006	ADJUST FIRE HYDRANT	EACH	2
309002	SEWER MANHOLE ON SEWER 48 INCH AND LESS DIA.	VLF	124
310004	F&I STANDARD DOUBLE BASIN	EACH	14
310006	F&I STANDARD TRIPLE BASIN	EACH	7
310008	BASIN CONNECT PCC PIPE, CLASS III, 15 INCH	LF	753
310022	LID UNDERDRAIN CONNECTION TO CATCH BASIN	EACH	13
310024	LID UNDERDRAIN CONNECTION TO MANHOLE	EACH	2
310993	CATCH BASINS SPECIAL ITEM - EACH - F&I DUAL THROAT WATER QUALITY BASIN	EACH	9
311004	RESET SEWER-WATER-UTILITY MANHOLE FRAME	EACH	59
311014	FURNISH INLET FRAME AND GRATE	EACH	2
311016	FURNISH SEWER-WATER MANHOLE FRAME	EACH	17
311026	REPLACE EXISTING BASIN WITH DOUBLE BASIN	EACH	6
311028	REPLACE EXISTING BASIN WITH TRIPLE BASIN	EACH	6
313002	ABANDON BASIN CONNECTING PIPE	EACH	137
313004	ABANDON SEWER MANHOLE	EACH	3
313006	ABANDON BASIN	EACH	14
314006	PCC PIPE, CLASS III, GASKET, 18 INCH	LF	1626
315004	PIPE SEWER TV INSPECTION - LF	LF	1626
328002	CLEAN STORM SEWER STRUCTURE	EACH	15
400017	THIN HOT MIX ASPHALT CONCRETE OVERLAY	TON	643
402010	HMA SURFACE COURSE, 12.5 mm	TON	1406
405016	TEMPORARY AC, HMA SURFACE COURSE, 12.5 MM	TON	324
410002	PAVEMENT PROFILING (MILLING)	SY	14901
502006	PCC BASE, 8 INCH	CY	1812
504012	PCC DRIVEWAY-ALLEY ENTRANCE, 7 INCH	SY	890
506002	PCC BUS STOP PAD	CY	300
506004	PCC MEDIAN STRIP	CY	20
506006	PCC DIRECTIONAL ISLAND	CY	10
600011	600001 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - GOLDEN RAIN TREE (8'-10' HT.)	EACH	5
600011	600003 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - SWEET BAY MAGNOLIA (8'-10' HT.)	EACH	4
600011	600005 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - BLACK GUM (8'-10' HT.)	EACH	1
600011	600007 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - SWAMP WHITE OAK (8'-10' HT.)	EACH	2
600011	600009 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - WILLOW OAK (8'-10' HT.)	EACH	27
600011	600013 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - RED TWIG DOGWOOD (5 GAL.)	EACH	197
600011	600015 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - SMOOTH HYDRANGEA (3 GAL.)	EACH	34
600011	600017 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - OAKLEAF HYDRANGEA (3 GAL.)	EACH	31
600011	600019 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - INKBERRY (3 GAL.)	EACH	76
600011	600021 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - YAUPON HOLLY (3 GAL.)	EACH	48
600011	600023 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - PINK MUHLY GRASS (2 GAL.)	EACH	186
600011	600025 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - FOUNTAIN GRASS (2 GAL.)	EACH	500
600011	600027 INCIDENTAL CONSTRUCTION SPECIAL ITEM - EACH - GRAY RUSH GRASS (2 GAL.)	EACH	96
600017	BIORETENTION PLANTER RAILING	LF	2279
600027	PERMEABLE INTERLOCKING UNIT PAVERS, TYPE 1	SY	105
600027	PERMEABLE INTERLOCKING UNIT PAVERS, TYPE 2	SY	2000
601002	UNDERDRAIN PIPE, 4 INCH	LF	1659

ITEM CODE	DESCRIPTION	UNIT	QUANTITY TOTAL
601002	UNDERDRAIN PIPE, 4 INCH	LF	1659
601008	UNDERDRAIN CONNECT PIPE, 4 INCH	LF	95
601016	UNDERDRAIN CLEANOUT COVER PAVED AREA	EACH	19
601018	UNDERDRAIN PIPE RISERS	VLF	85
602012	LID SPLASH STONE, RIVER ROCK	CY	10
604042	RELOCATE CHAIN LINK FENCE	LF	35
604991	604001 MISCELLANEOUS FENCING SPECIAL ITEM - LF - RELOCATE IRON FENCE	LF	75
604991	604003 MISCELLANEOUS FENCING SPECIAL ITEM - LF - REMOVE IRON FENCE	LF	10
605006	PCC SIDEWALK, 4 INCH	SY	5343
605010	EXPOSED AGGREGATE SIDEWALK, 4 INCH	SY	4820
605042	POROUS RUBBER SIDEWALK	SY	190
606018	PCC CIRCULAR CURB	LF	100
606046	PCC GUTTER	SY	72
606048	PCC GUTTER, 7 TO 10 INCH DEPTH X 12-24 INCH WIDTH	SY	885
606064	FURNISH AND SET 8"X12" GRANITE STRAIGHT CURB	LF	6060
606066	FURNISH&SET 8"X12" GRANITE CIRCULAR CURB RADIUS UNDER 10FT	LF	560
606068	FURNISH&SET8"X12"GRANITE CIRCULAR CURB RADIUS10-100FT	LF	1220
606070	FURNISH&SET8"X12"GRANITE CIRCULAR CURB RADIUS OVER 100FT	LF	535
606098	PCC WHEELCHAIR/BICYCLE RAMP - NEW CONSTRUCTION	EACH	49
606112	PCC LID CURB INLET/OUTLET	CY	5
607016	SOD	SY	3779
607032	MULCH	SY	600
607042	BIORETENTION SOIL	CY	702
608004	REMOVE TREE AND STUMP 6 TO 12 INCH DIA.	EACH	37
608006	REMOVE TREE AND STUMP 12 TO 18 INCH DIA.	EACH	9
608008	REMOVE TREE AND STUMP 18 TO 24 INCH DIA.	EACH	4
608010	REMOVE TREE AND STUMP 24 TO 30 INCH DIA.	EACH	1
608014	REMOVE TREE AND STUMP 36 TO 42 INCH DIA.	EACH	3
608072	TREE PROTECTION AND REPLACEMENT	EACH	35
608078	STEEL EDGING	LF	460
608079	WEATHERED STEEL EDGING	LF	1250
608124	PERENNIAL, 1 GALLON	EACH	1740
610014	INSTALL/MOVE WATER FILLED PLASTIC JERSEY BARRIER	LF	160
611103	NSDC-36 TRASH CAN (43" x 24")	EACH	5
612006	CONSTRUCTION LANE CLOSING	LS	1
612008	REMOVE LANE MARKINGS	SF	1440
612010	TEMPORARY CONSTRUCTION SIGN SUPPORTS	EACH	80
612012	PORTABLE TRAFFIC SIGNAL BASES	EACH	261
612014	CONSTRUCTION WARNING AND DETOUR SIGNS	SF	662
612026	CONSTRUCTION SIGN WARNING FLAGS	EACH	120
612028	TYPE III PVC BARRICADE	EACH	7
612034	TRAFFIC DRUMS	EACH	960
612054	THERMOPLASTIC PAVEMENT MARKING, 4 INCH	LF	5515
612056	THERMOPLASTIC PAVEMENT MARKING, 4 INCH DASH	LF	5640
612058	THERMOPLASTIC PAVEMENT MARKING, 6 INCH	LF	2370
612064	THERMOPLASTIC PAVEMENT MARKING, 12 INCH	LF	580
612066	THERMOPLASTIC PAVEMENT MARKING, 24 INCH	LF	3570
612068	THERMOPLASTIC PAVEMENT LETTER	EACH	20
612070	THERMOPLASTIC PAVEMENT ARROW	EACH	45
612100	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
613008	F&I PCC FOUNDATION FOR TRAFFIC SIG /PENDANT POST ST LT POLE	EACH	30
613016	FURNISH&INSTALL ONE 2 IN PVC ENCASED ELECTRICAL CONDUIT	LF	117
613018	FURNISH&INSTALL ONE 4 IN PVC ENCASED ELECTRICAL CONDUIT	LF	44
613036	FURNISH&INSTALL ONE 2 IN&TWO 4 IN PVC ENCASED ELEC CONDUITS	LF	285
613038	FURNISH&INSTALL ONE 2 IN&ONE 4 IN PVC ENCASED ELEC CONDUITS	LF	659
613040	FURNISH&INSTALL FOUR 4 IN PVC ENCASED ELECTRICAL CONDUITS	LF	919
613050	F&I PCC FOUNDATION FOR CONTROLLER CABINET	EACH	3
613052	FUR TEMP PORT CONCRETE BASE M.336-S&M.336-SS TRAF SIG CAB	EACH	2
613054	FUR TEMP PORT CONC BASE 20 FT STEEL TRAF POLE ON TRANS BASE	EACH	18
613058	F&I 20 FOOT TALL STEEL TRAFFIC SIGNAL POLE	EACH	18
613078	FURNISH&INSTALL 8 FT MAST ARM W/CLAMP & REMOVABLE END CLAMP	EACH	8
613084	F&I 15 FOOT LONG MAST ARM WITH CAP AND CLAMP	EACH	1
613096	FURNISH&INSTALL CLOSED CIRCUIT TELEVISION CAMERA SYSTEM	EACH	2
613098	F&I 7 CONDUCTOR 14 AWG STRANDED ELECTRICAL TRAFFIC SIG CABLE	LF	10752
613100	F&I 4 CONDUCT 18 AWG SHIELDED STRANDED ELEC. TRAF SIG CABLE	LF	4146
613150	FURNISH RED BALL LED MODULE (12 INCH)	EACH	36

ITEM CODE	DESCRIPTION	UNIT	QUANTITY TOTAL
613156	FURNISH YELLOW BALL LED MODULE (12 INCH)	EACH	36
613162	FURNISH GREEN BALL LED MODULE (12 INCH)	EACH	28
613164	FURNISH RED ARROW LED MODULE	EACH	4
613166	FURNISH YELLOW ARROW LED MODULE	EACH	4
613168	FURNISH GREEN ARROW LED MODULE	EACH	12
613194	FURNISH 12 INCH PORTLAND ORANGE COUNTDOWN LED MODULE	EACH	26
613202	F&I 3 SECTION CONVENTIONAL TRAF SIG HEAD ON POLE(LENSES 12")	EACH	27
613204	F&I 4 SECTION CONVENTIONAL TRAF SIG HEAD ON POLE(LENSES 12")	EACH	4
613208	F&I 3 SECTION CONV TRAF SIG HEAD ON MAST ARM(LENSES 12")	EACH	8
613210	F&I 4 SECTION CONV TRAF SIG HEAD ON MAST ARM(LENSES 12")	EACH	1
613226	F&I 2 SECT CONVENTIONAL PEDESTRIAN SIGNAL HEAD ON POLE(12")	EACH	26
613230	REMOVE EXISTING SIGNAL HEAD	EACH	21
613236	F&I PEDESTRIAN PUSH BUTTON	EACH	26
613240	F&I ACCESSIBLE PEDESTRIAN SIGNAL CONTROL UNIT	EACH	26
613250	FURNISH&INSTALL VIDEO TRAFFIC FLOW DETECTION SYSTEM	EACH	10
613262	F&I ROADWAY WEATHER INFORMATION SYSTEM	EACH	1
613322	F&I TRAFFIC SIGNAL CONTROLLER AND CABINET	EACH	3
613326	F&I DYNAMIC MESSAGE SIGN	EACH	1
613328	F&I DMS SIGN CONTROLLER	EACH	1
613330	F&I DMS CONTROLLER WIRING	EACH	1
613332	DMS SIGN CONTROLLER SOFTWARE	LS	1
613334	REMOVE ABANDONED TRAFF SIGNAL CONTROLLER CABINET FOUNDATION	EACH	2
613338	REMOVE TRAFFIC SIGNAL POLE AND TRAFFIC SIGNAL EQUIPMENT	EACH	10
613340	REMOVE TRAFFIC SIGNAL CONTROLLER AND CABINET	EACH	2
613398	PEPCO SERVICE CONNECT, DISCONNECT, & PEPCO MANHOLE ENTRYFEES	LS	1
614028	F&I 75W LED CUTOFF	EACH	29
614050	REMOVE ARM FROM METAL POLE	EACH	1
614078	F&I 36" X 36" X 36" MANHOLE	EACH	8
614084	F&I 48" X 48" X 48" MANHOLE	EACH	13
614096	F&I FRAME AND COVER FOR 36" X 36" MANHOLE	EACH	8
614100	F&I FRAME AND COVER FOR 48" X 48" MANHOLE	EACH	13
614202	F&I 6-4" AND 2-2" SCHEDULE 40 RIGID PVC CONDUITS (DUCT BANK)	LF	2423
614472	F&I #14 CAST IRON POLE	EACH	56
614544	F&I 28.5' STEEL PENDANT POLE WITH UP TO 8' ARM	EACH	59
614568	REMOVE PENDANT POLE 30 FT. HEIGHT OR LESS	EACH	24
614644	F&I UP TO 8 FT ARM ON PENDANT POLE	EACH	1
614700	REMOVE LUMINAIRE FROM STEEL POLE	EACH	1
614808	F&I FIXTURE, ANY TYPE	EACH	91
614906	F&I ELECTRICAL EQUIPMENT CABINET (TEC)	EACH	2
614997	PAYMENT TO TRAFFIC SIGNAL CONTRACTOR FOR VISITS	LS	1
614999	PAYMENT TO PEPCO FOR CONNECTION, DISCONNECTION, INSPECTION	LS	1
616016	METAL SIGN POSTS, 3.00 POUNDS PER FOOT	LF	384
616022	TRAFFIC SIGN PANELS	SF	170
616036	REMOVE EXISTING GROUND MOUNTED SIGN	SF	194
616040	RESET GUIDE SIGN PANEL	SF	96
616042	FEDERAL AID PROJECT SIGN	EACH	1
617010	3-BAY QUAD GUARD IMPACT ATTENUATOR [24 INCH WIDE]	EACH	2
618002	EROSION AND SEDIMENT CONTROL	LS	1
618016	GEOTEXTILE FOR STORMWATER MANAGEMENT	SY	1083
618018	WATERPROOF MEMBRANE FOR STORMWATER MANAGEMENT	SY	718
608096	TOWNE SQUARE METAL BENCH (5'-10" x 2'-3")	EACH	6
605995	605001 TRELLIS-9X56 METAL TRELLIS (10' x 56')	EACH	1
605995	605003 BOLA METAL BIKE RACK 32"	EACH	12
600025	BLOCK AND GRANITE LOW RETAINING WALL (140' x 3')	SF	420

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

GN-6

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

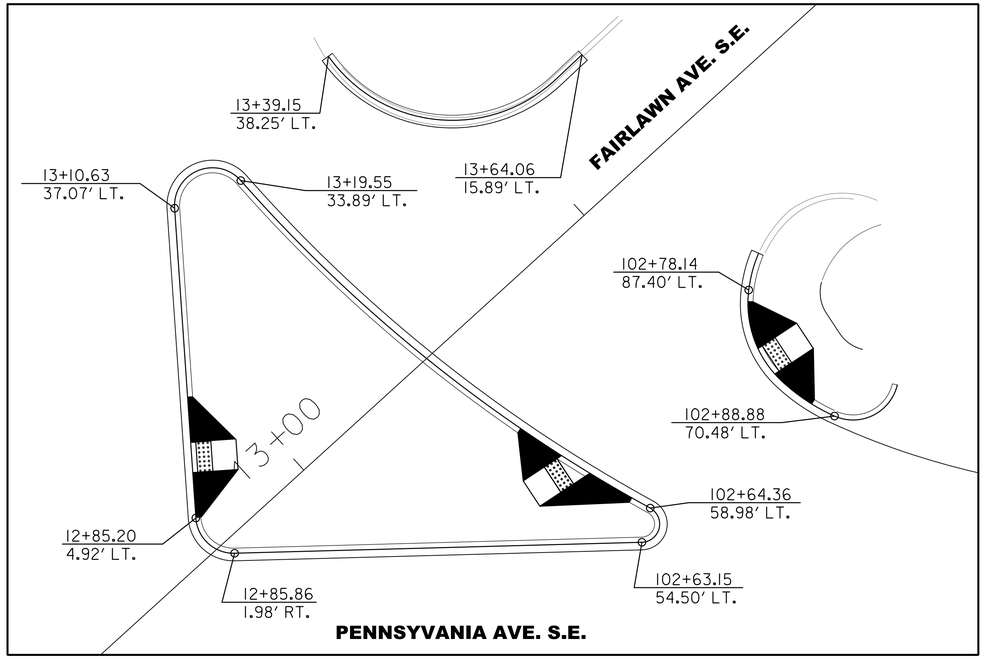
PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

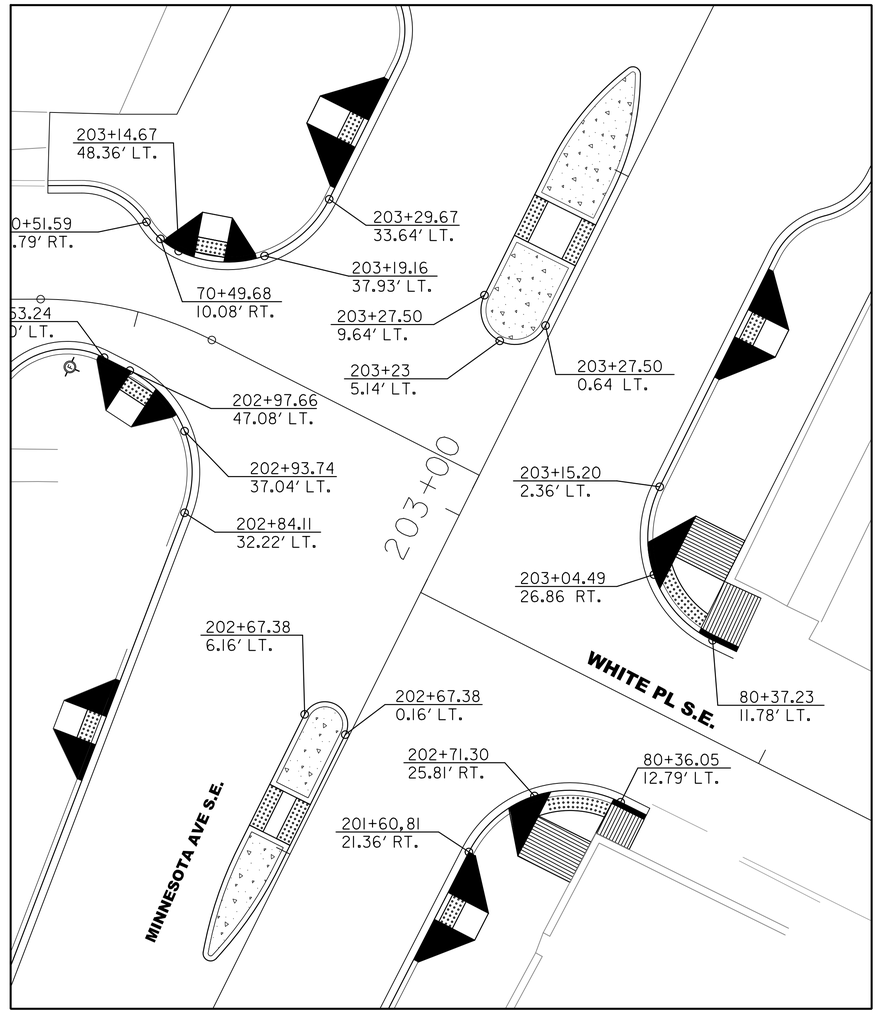
SUMMARY OF QUANTITIES

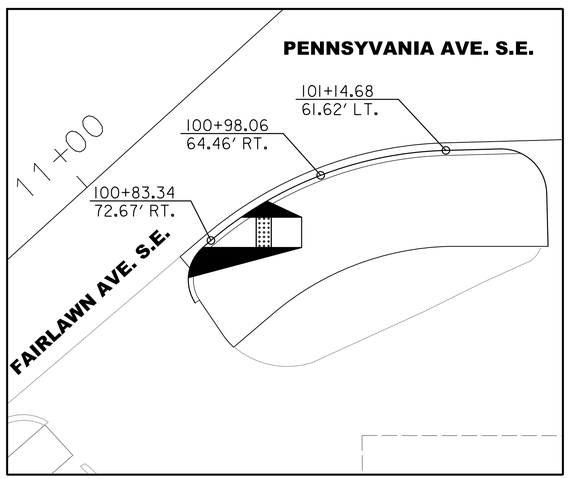
DIVISION CHIEF
DATE
FILE
DWG. 6 OF 197

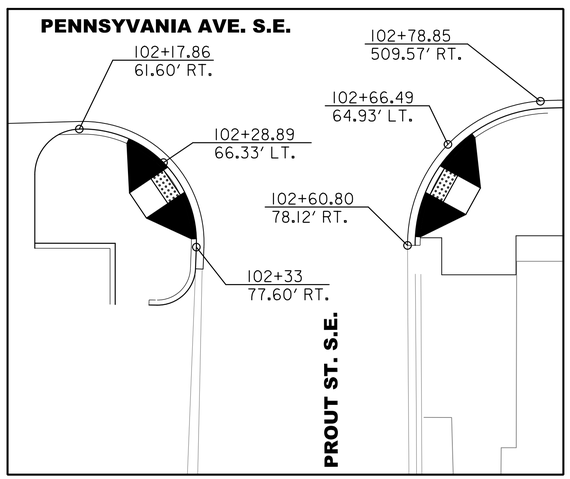
K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\General\pSQ-P001_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	7	197









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

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NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

GN-7

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

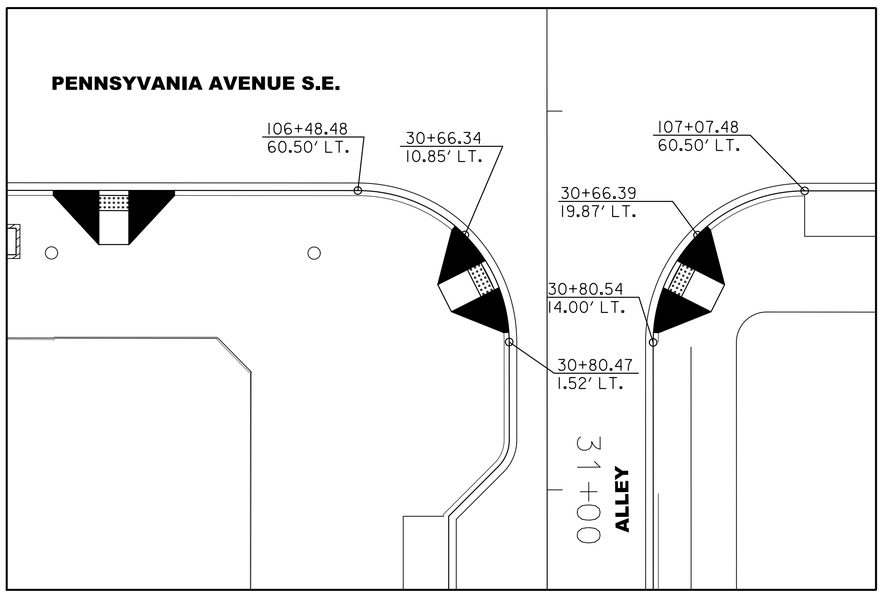
PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

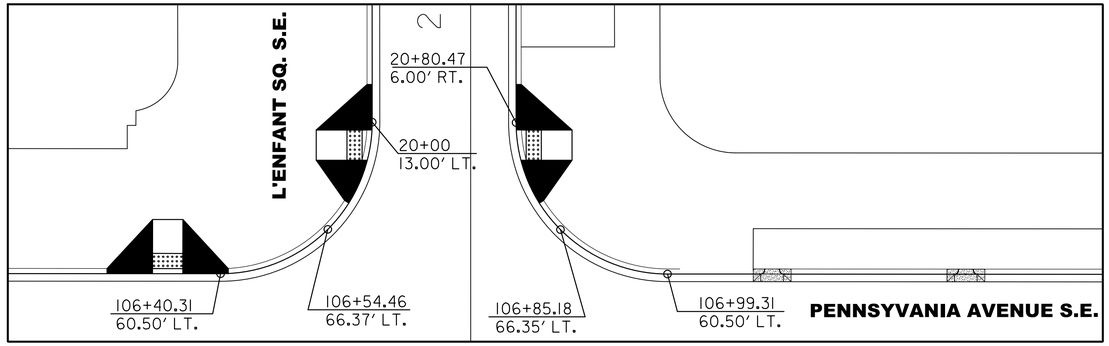
INTERSECTION DETAILS – 1

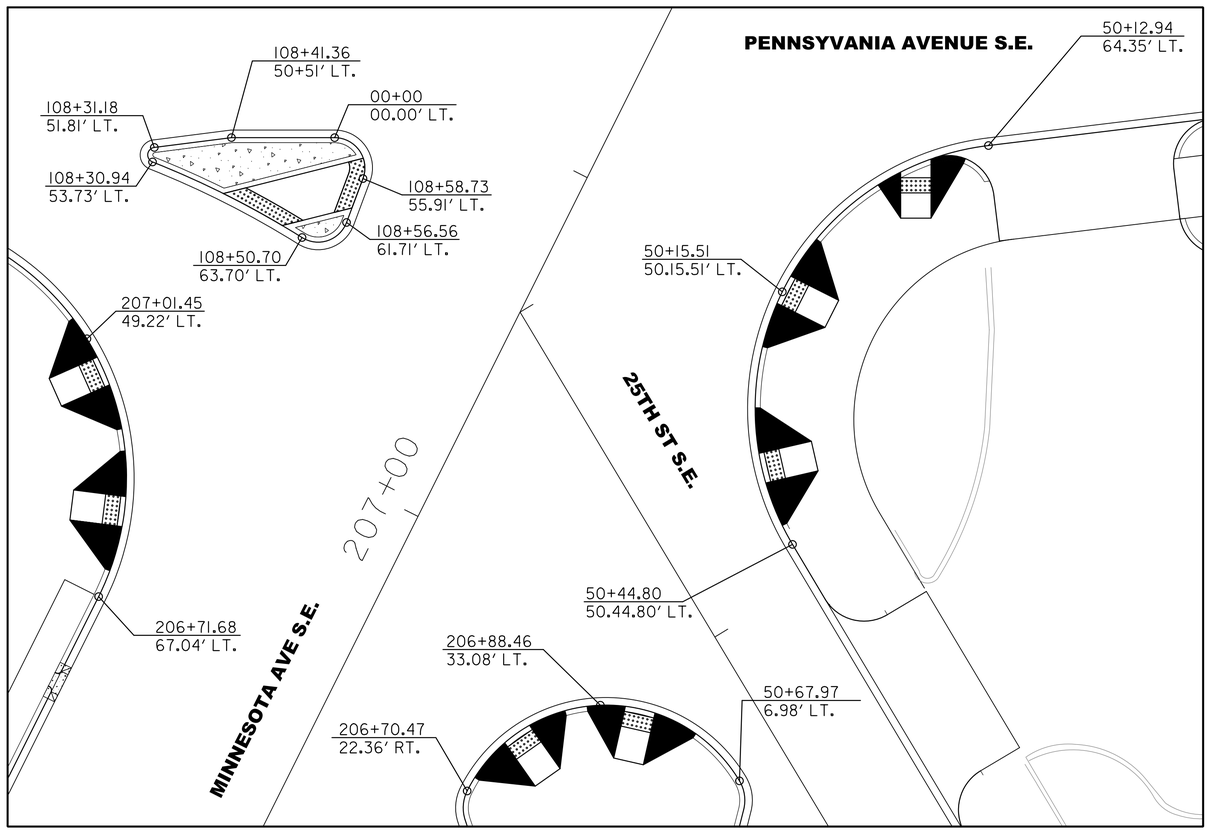
DIVISION CHIEF
DATE
FILE
DWG. 7 OF 197

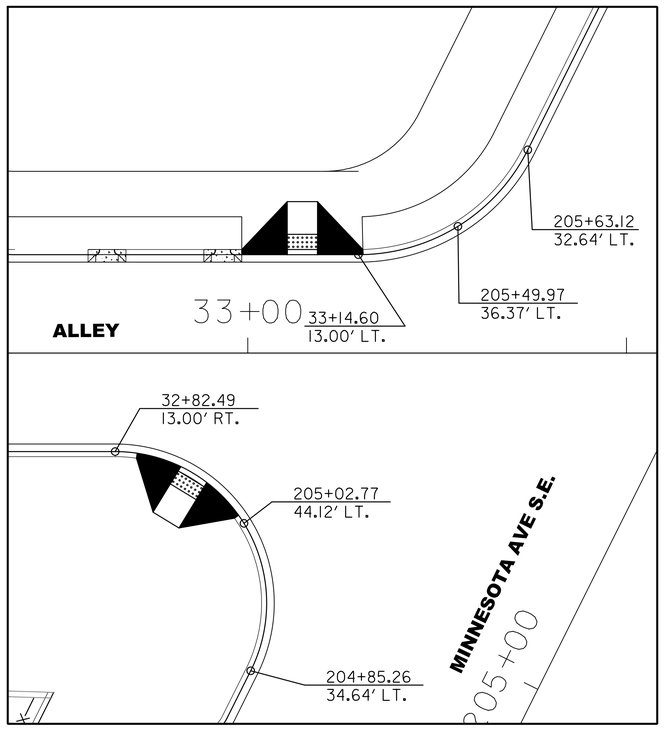
K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Intersection Sheets\pINT-P001_ED08IA.dgn
Tuesday, September 25, 2018 AT 01:18 PM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	8	197









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

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

GN-8

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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

INTERSECTION DETAILS – 2

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 8 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\00N\Sheets\Intersection Sheets\pINT-P002_ED0BIA.dgn
Tuesday, September 25, 2018 AT 01:18 PM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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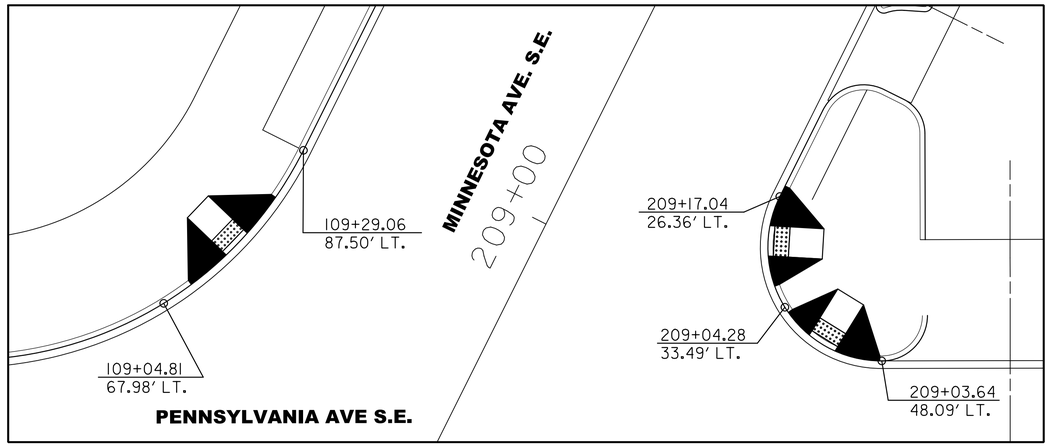

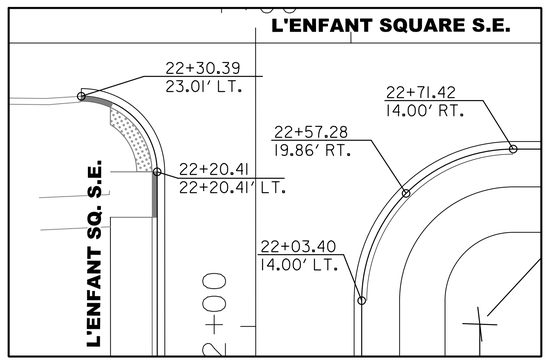

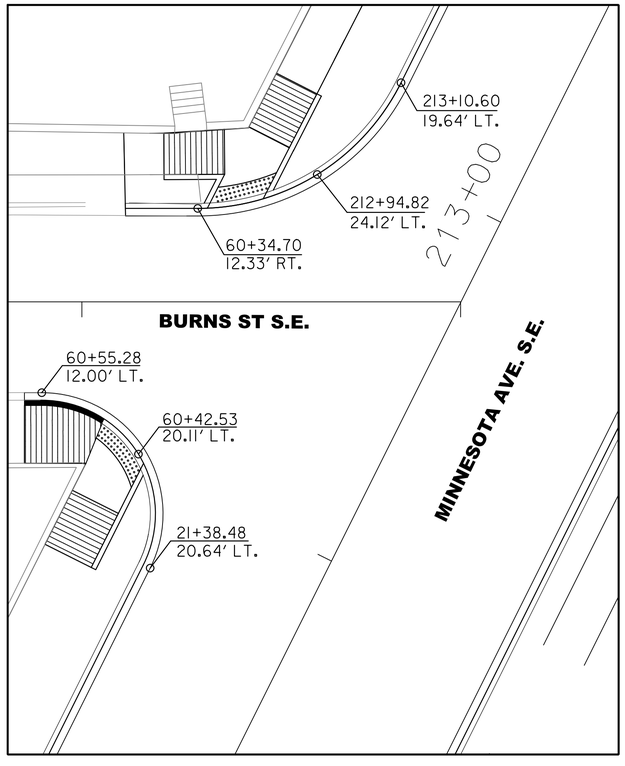

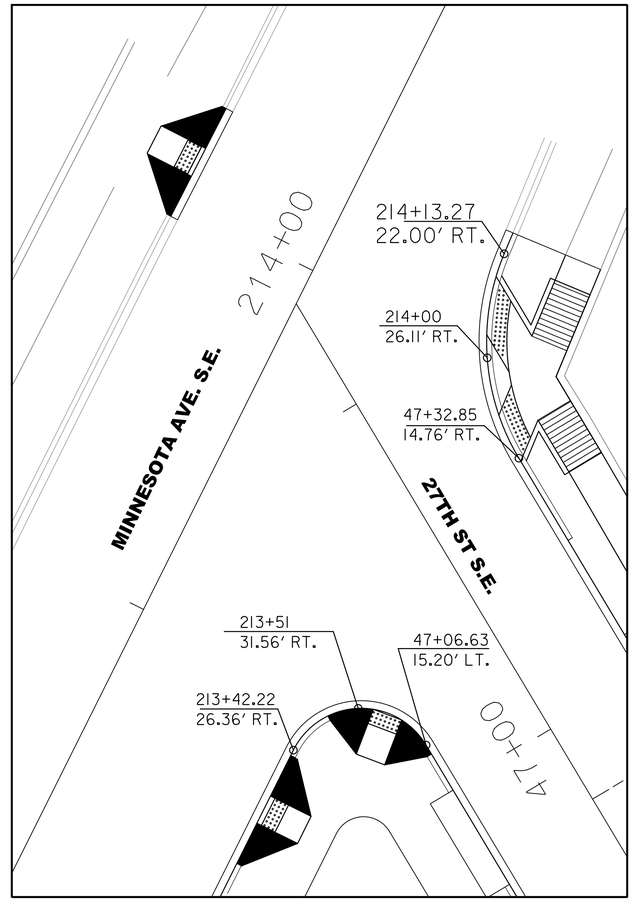

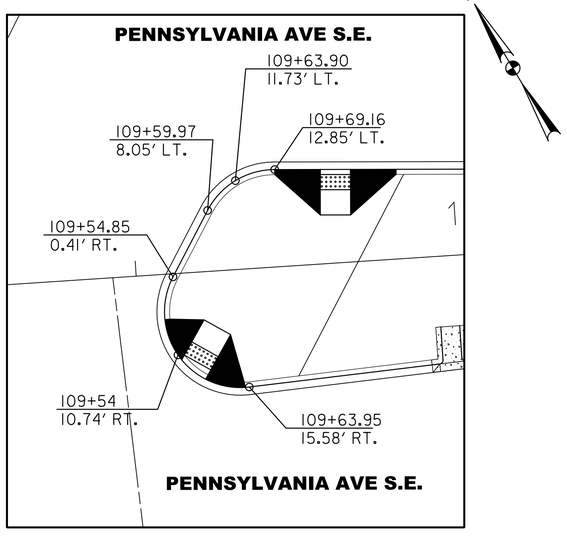

10' 0 10' 20'
SCALE: 1"=10'

GN-9

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

INTERSECTION DETAILS – 3

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 9 OF 197

NO	DESCRIPTION	NAME	DATE

REVISIONS

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

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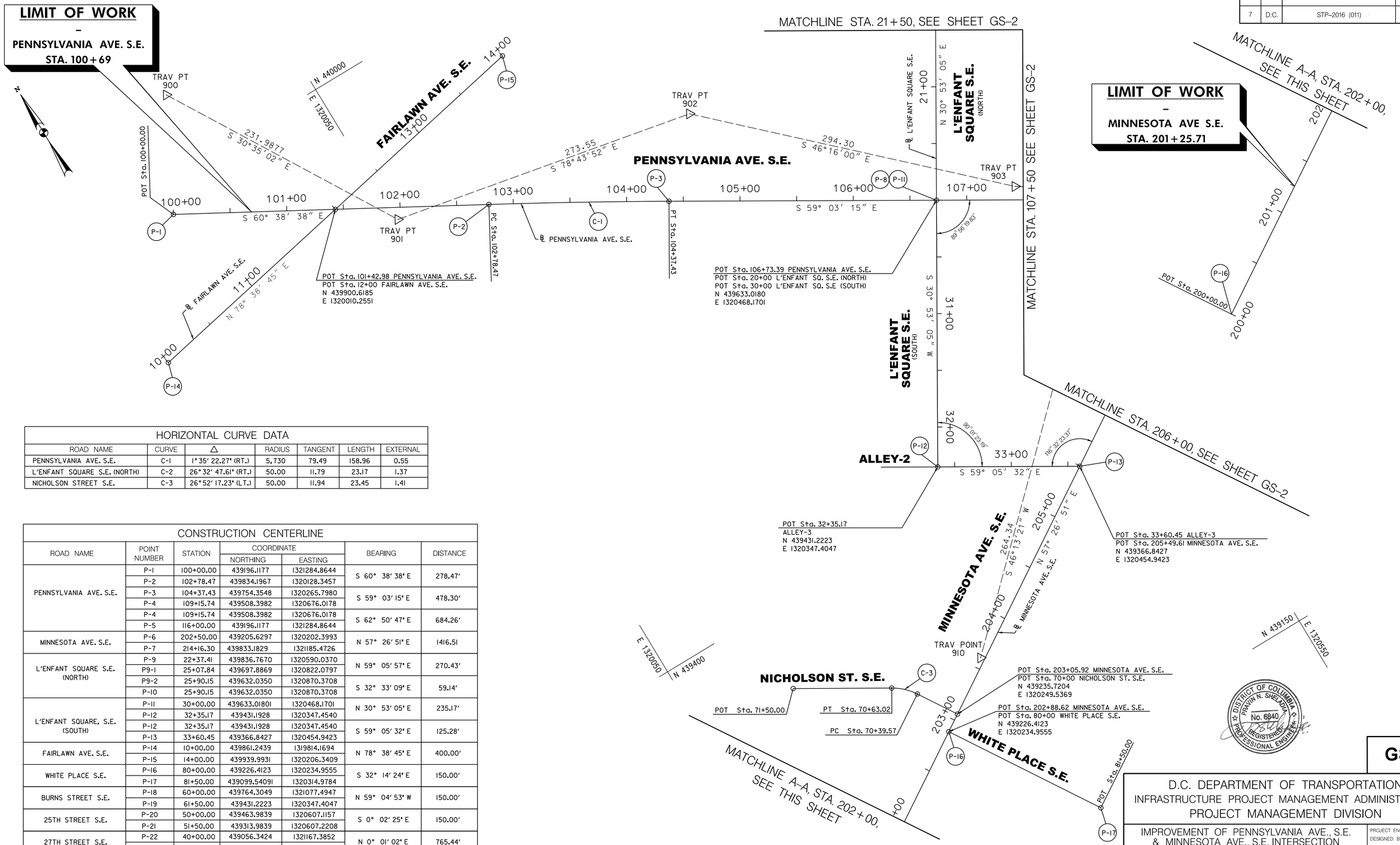
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	10	197



HORIZONTAL CURVE DATA

ROAD NAME	CURVE	△	RADIUS	TANGENT	LENGTH	EXTERNAL
PENNSYLVANIA AVE. S.E.	C-1	1° 35' 22.27" (RT.)	5,730	79.49	158.96	0.55
L'ENFANT SQUARE S.E. (NORTH)	C-2	26° 32' 47.61" (RT.)	50.00	11.79	23.17	1.37
NICHOLSON STREET S.E.	C-3	26° 52' 17.23" (LT.)	50.00	11.94	23.45	1.41

CONSTRUCTION CENTERLINE

ROAD NAME	POINT NUMBER	STATION	COORDINATE		BEARING	DISTANCE
			NORTHING	EASTING		
PENNSYLVANIA AVE. S.E.	P-1	100+00.00	439196.1177	1321284.8644	S 60° 38' 38" E	278.47'
	P-2	102+78.47	439834.1967	1320128.3457		
	P-3	104+37.43	439754.3548	1320265.7980	S 59° 03' 15" E	478.30'
	P-4	109+15.74	439508.3982	1320676.0178		
	P-4	109+15.74	439508.3982	1320676.0178	S 62° 50' 47" E	684.26'
	P-5	116+00.00	439196.1177	1321284.8644		
MINNESOTA AVE. S.E.	P-6	202+50.00	439205.6297	1320202.3993	N 57° 26' 51" E	1416.51
	P-7	214+16.30	439833.1829	1321185.4726		
L'ENFANT SQUARE S.E. (NORTH)	P-9	22+37.41	439836.7670	1320590.0370	N 59° 05' 57" E	270.43'
	P9-1	25+07.84	439697.8869	1320822.0797		
	P9-2	25+90.15	439632.0350	1320870.3708	S 32° 33' 09" E	59.14'
	P-10	25+90.15	439632.0350	1320870.3708		
L'ENFANT SQUARE, S.E. (SOUTH)	P-11	30+00.00	439633.01801	1320468.1701	N 30° 53' 05" E	235.17'
	P-12	32+35.17	439431.1928	1320347.4540		
	P-12	32+35.17	439431.1928	1320347.4540	S 59° 05' 32" E	125.28'
	P-13	33+60.45	439366.8427	1320454.9423		
FAIRLAWN AVE. S.E.	P-14	10+00.00	439861.2439	1319814.1694	N 78° 38' 45" E	400.00'
	P-15	14+00.00	439939.9931	1320206.3409		
WHITE PLACE S.E.	P-16	80+00.00	439226.4123	1320234.9555	S 32° 14' 24" E	150.00'
	P-17	81+50.00	439099.54091	1320314.9784		
BURNS STREET S.E.	P-18	60+00.00	439764.3049	1321077.4947	N 59° 04' 53" W	150.00'
	P-19	61+50.00	439431.2223	1320347.4047		
25TH STREET S.E.	P-20	50+00.00	439463.9839	1320607.1157	S 0° 02' 25" E	150.00'
	P-21	51+50.00	439313.9839	1320607.2208		
27TH STREET S.E.	P-22	40+00.00	439056.3424	1321167.3852	N 0° 01' 02" E	765.44'
	P-23	47+65.44	439821.7845	1321167.6169		

40' 0 40' 80'
SCALE: 1" = 40'

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NO	DESCRIPTION	NAME	DATE

REVISIONS

GS-1

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

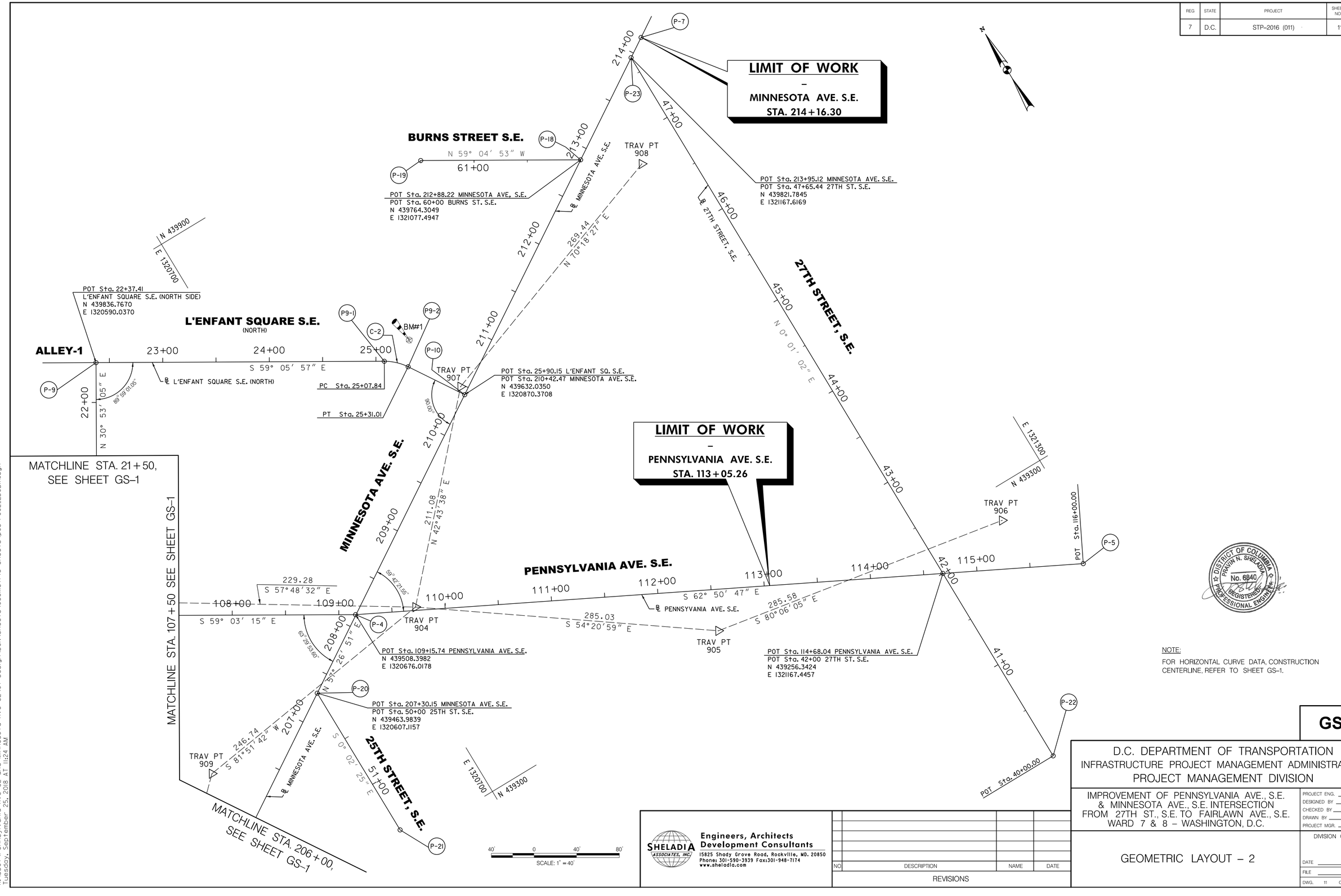
GEOMETRIC LAYOUT – 1

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 10 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Geometric Sheets\pGS-P001.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	11	197



NOTE:

FOR HORIZONTAL CURVE DATA, CONSTRUCTION CENTERLINE, REFER TO SHEET GS-1.

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

GS-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
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WARD 7 & 8 – WASHINGTON, D.C.

GEOMETRIC LAYOUT – 2

PROJECT ENG. K. M.
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CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 11 OF 197

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REVISIONS

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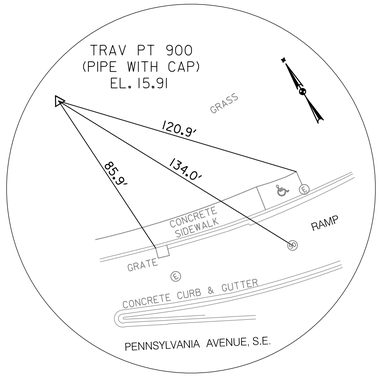
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	12	197

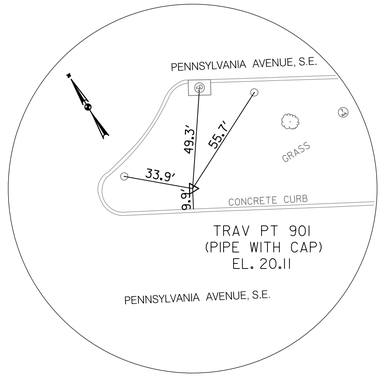
TRAVERSE CONTROL DATA

POINT #	NORTHING	EASTING	ELEV.	DESCRIPTION	DISTANCE	BEARING
900	440064.1870	1319934.7740	15.91	PIPE WITH CAP	231.99	S 30°35'02" E
901	439864.4722	1320052.8092	20.11	PIPE WITH CAP	273.55	S 78°43'52" E
902	439811.0166	1320321.0837	24.05	MAG NAIL	294.30	S 46°16'00" E
903	439607.5662	1320533.7353	31.46	MAG NAIL	229.28	S 57°48'32" E
904	439485.4161	1320727.7732	35.89	PIPE WITH CAP	285.03	S 54°20'59" E
905	439319.2907	1320959.3842	41.46	PIPE WITH CAP	285.58	S 80°06'05" E
906	439270.1970	1321240.7150	51.45	MAG NAIL		
904	439485.4161	1320727.7732	35.89	PIPE WITH CAP	211.08	N 42°43'38" E
907	439640.4754	1320870.9942	31.50	PIPE WITH CAP	269.44	N 70°18'27" E
908	439731.2693	1321124.6759	31.08	PIPE WITH CAP		
904	439485.4161	1320727.7732	35.89	PIPE WITH CAP	246.74	S 81°51'42" W
909	439450.4870	1320483.5208	35.87	PIPE WITH CAP	264.34	S 46°13'21" W
910	439267.6040	1320292.6623	41.51	PIPE WITH CAP		

1. HORIZONTAL DATUM: MARYLAND STATE PLANE NAD83.
2. VERTICAL DATUM: DISTRICT OF COLUMBIA DEPARTMENT OF PUBLIC WORKS (DCDPW)
   DISTRICT OF COLUMBIA SURVEYOR'S OFFICE BENCH MARK USED: 10-124 (ELEV.:31.34').



TRAV-900
N.T.S.



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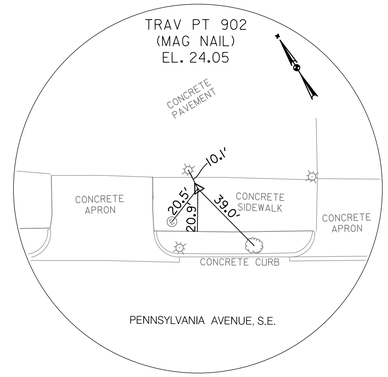

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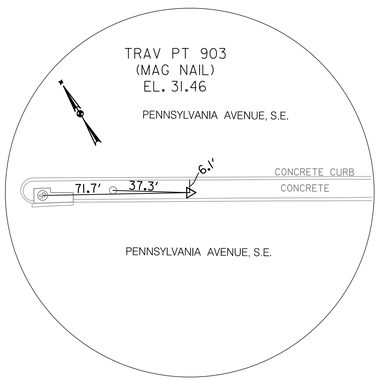

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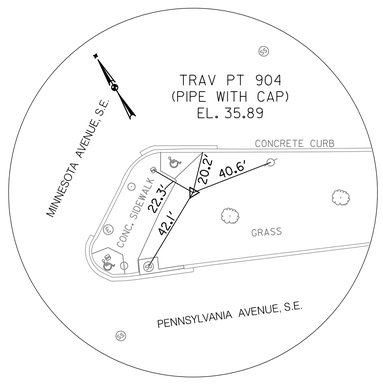

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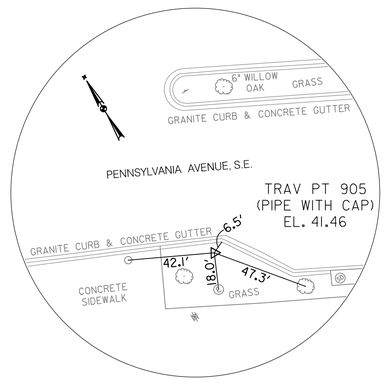

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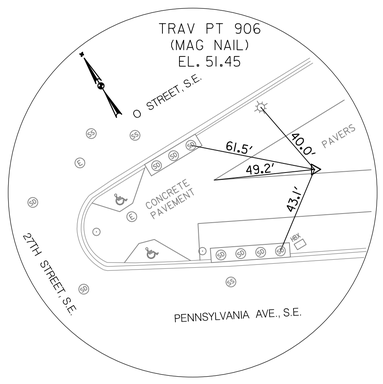

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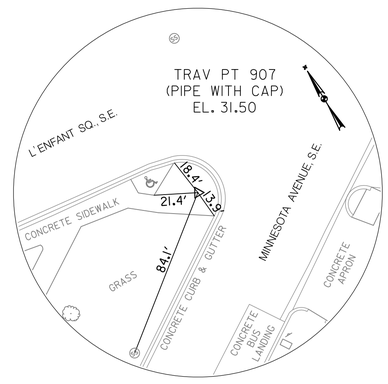

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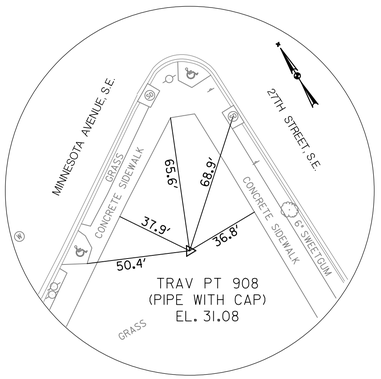

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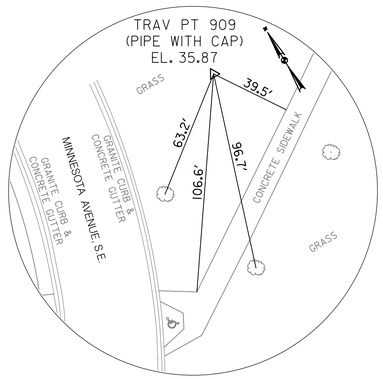

TRAV-909
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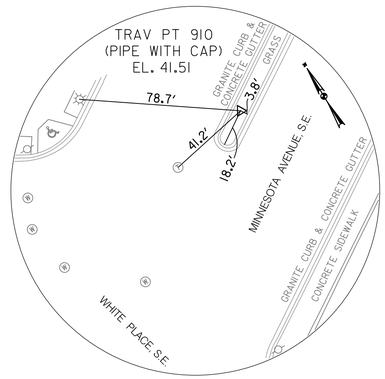

TRAV-910
N.T.S.

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

GS-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

CONTROL TRAVERSE AND
REFERENCE POINTS

DIVISION CHIEF
DATE
FILE
DWG. 12 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Geometric Sheets\pGS-P003_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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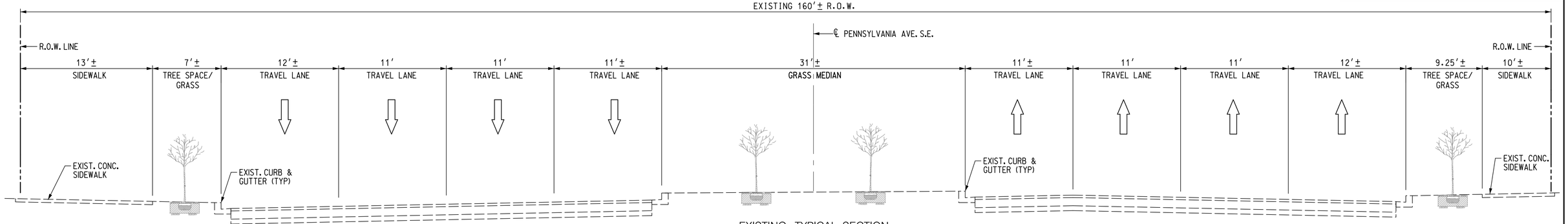
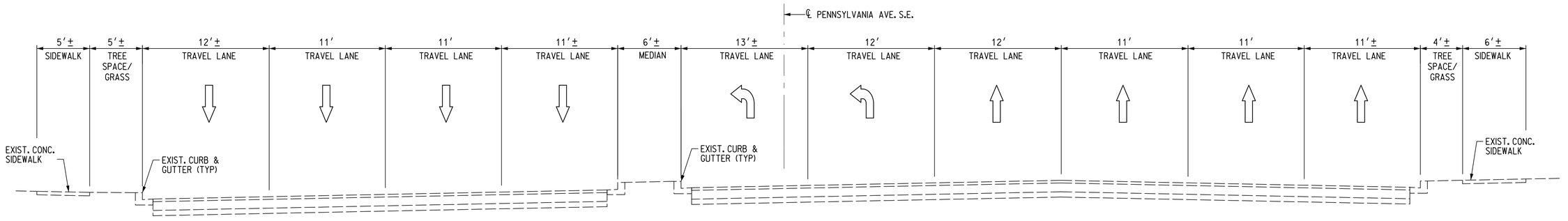
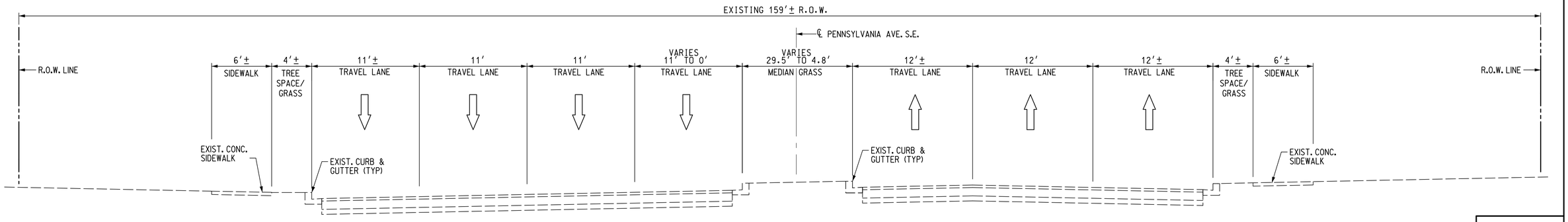


EXISTING TYPICAL SECTION
STA. 101+75 TO STA. 106+72
N.T.S.



EXISTING TYPICAL SECTION
STA. 107+02 TO STA. 108+80
N.T.S.



EXISTING TYPICAL SECTION
STA 109+51 TO STA. 113+05.26
N.T.S.

DISTRICT OF COLUMBIA ☆ PRAWIN N. SHELADIA ☆ No. 6840 REGISTERED PROFESSIONAL ENGINEER

HT-1

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

EXISTING TYPICAL SECTIONS – 1

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 13 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Typicals\PHT-X001_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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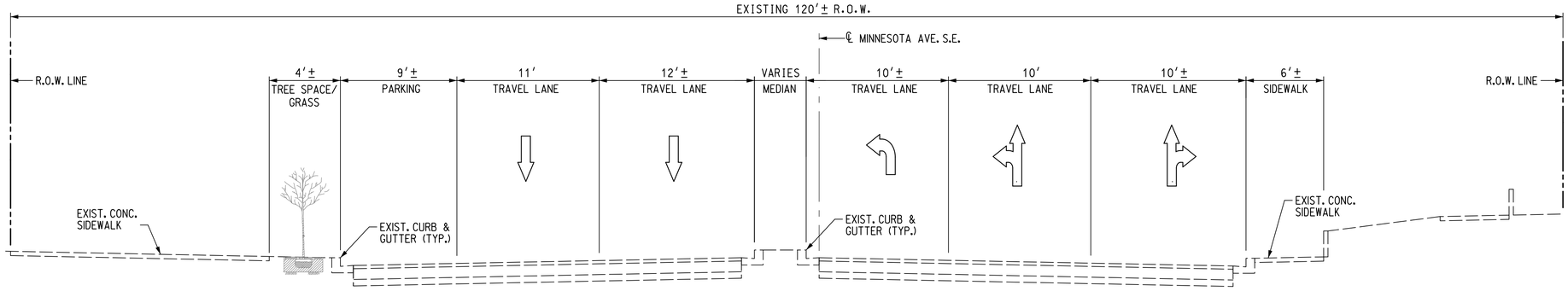
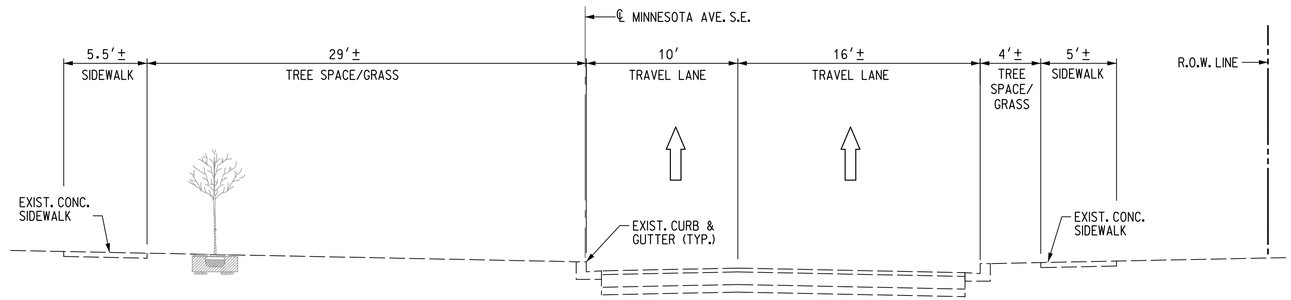
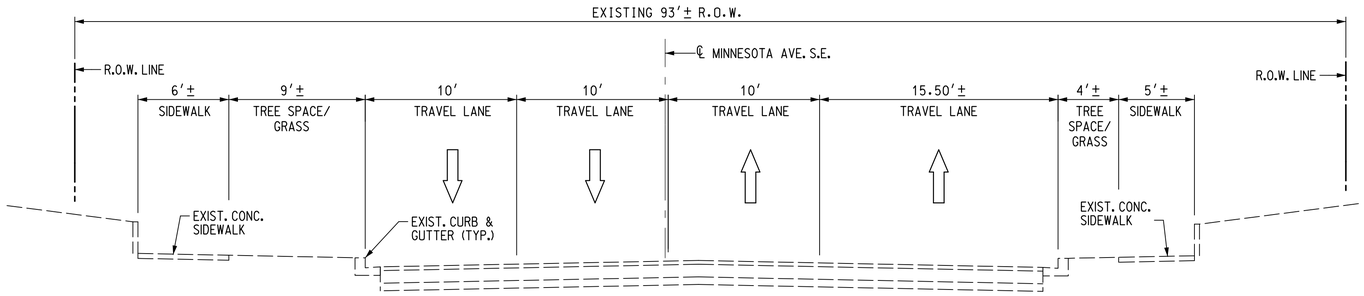


EXISTING TYPICAL SECTION
STA. 203+50 TO STA. 207+00
N.T.S.



EXISTING TYPICAL SECTION
STA. 209+15 TO STA. 210+45
N.T.S.



EXISTING TYPICAL SECTION
STA. 211+00 TO STA. 214+16.30
N.T.S.

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HT-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

EXISTING TYPICAL SECTIONS – 2

DIVISION CHIEF
DATE
FILE
DWG. 14 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Typicals\PHT-X002_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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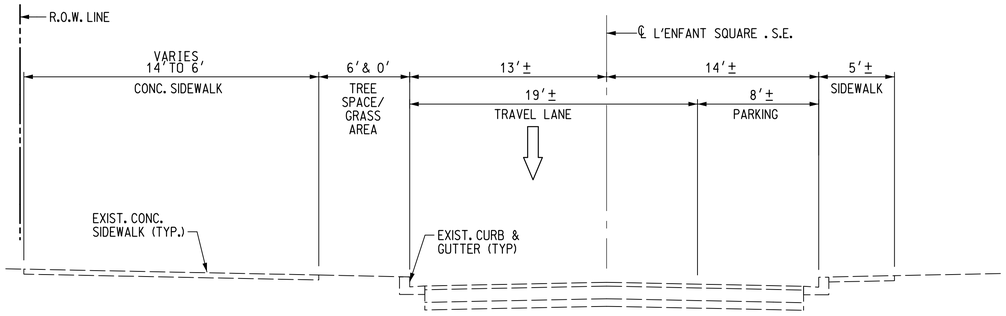
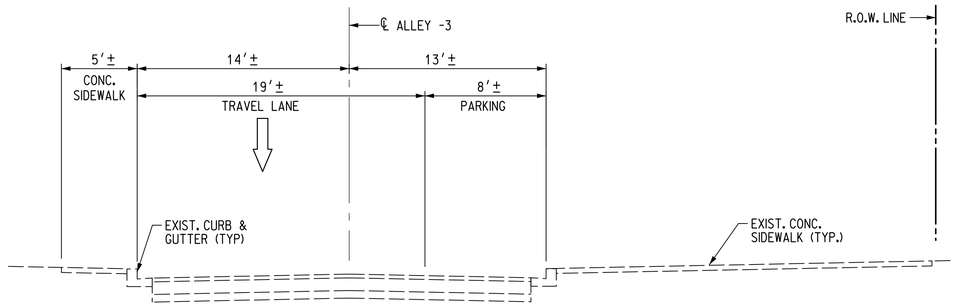
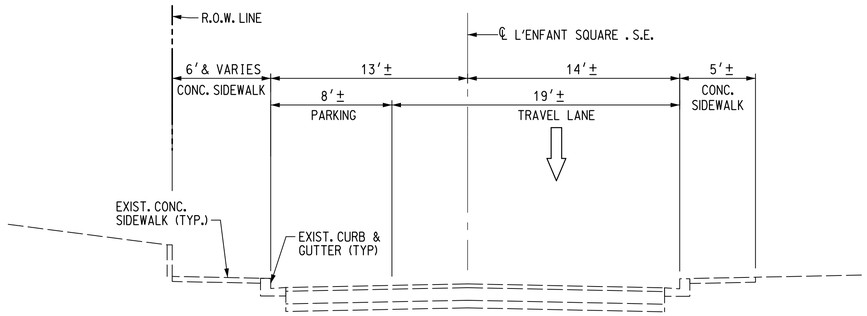


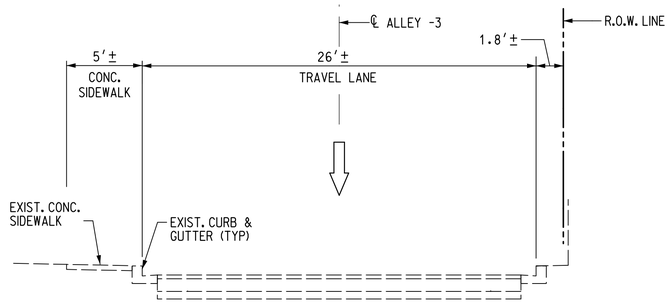
EXISTING TYPICAL SECTION
(L'ENFANT SQUARE . S.E.)
STA. 21+80.54 TO STA. 22+37.41
N.T.S.



EXISTING TYPICAL SECTION
(L'ENFANT SQUARE, S.E.)
STA. 30+80.47 TO STA. 32+35.17
N.T.S.



EXISTING TYPICAL SECTION
(L'ENFANT SQUARE . S.E.)
STA. 22+37.41 TO STA. 25+42.14
N.T.S.



EXISTING TYPICAL SECTION
(L'ENFANT SQUARE, S.E.)
STA. 30+80.47 TO STA. 32+35.17
N.T.S.

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HT-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

EXISTING TYPICAL SECTIONS – 3

DIVISION CHIEF
DATE
FILE
DWG. 15 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Typicals\PHT-X003.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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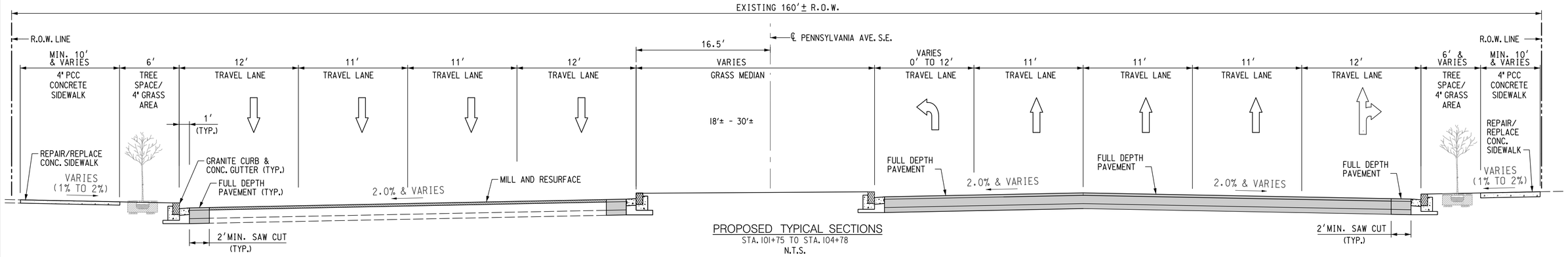
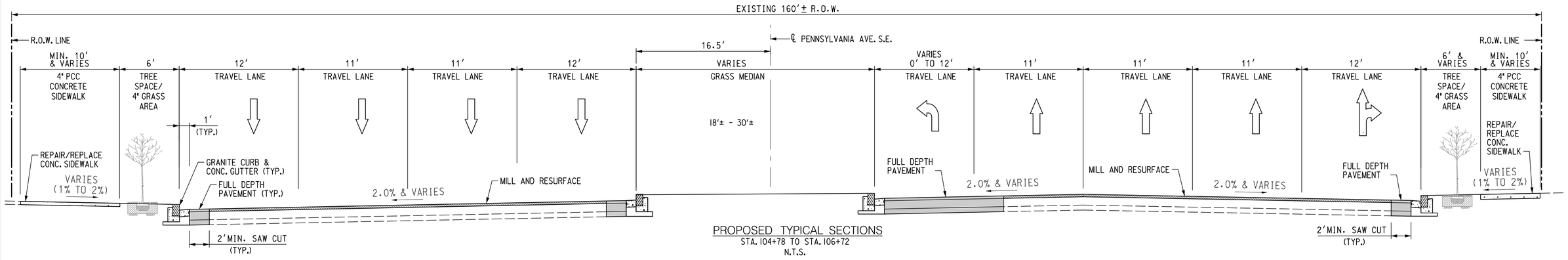
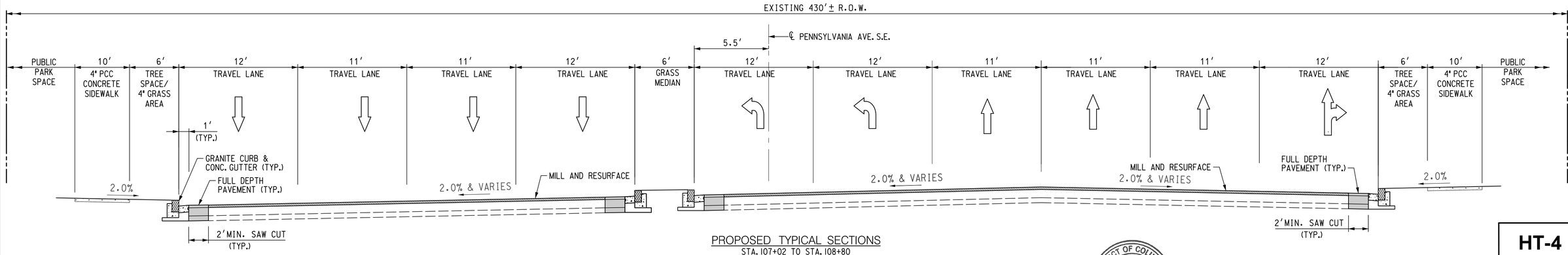


PROPOSED TYPICAL SECTIONS
STA. 101+75 TO STA. 104+78
N.T.S.



PROPOSED TYPICAL SECTIONS
STA. 104+78 TO STA. 106+72
N.T.S.



PROPOSED TYPICAL SECTIONS
STA. 107+02 TO STA. 108+80
N.T.S.

NOTE:

FOR PAVEMENT DETAIL SEE SHEET HT-8.

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

HT-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

PROPOSED TYPICAL SECTIONS – 1

DIVISION CHIEF
DATE
FILE
DWG. 16 OF 197

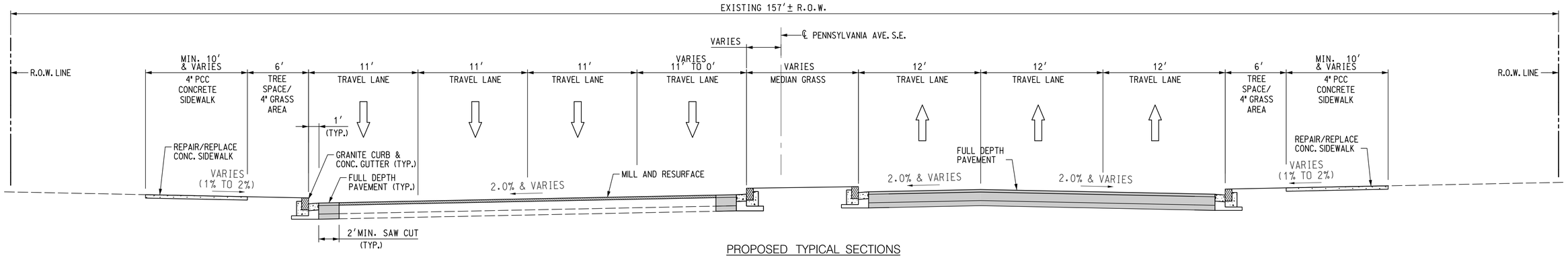
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Typicals\PHT-X004_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	17	197



PROPOSED TYPICAL SECTIONS
STA 109+51 TO STA. 112+57
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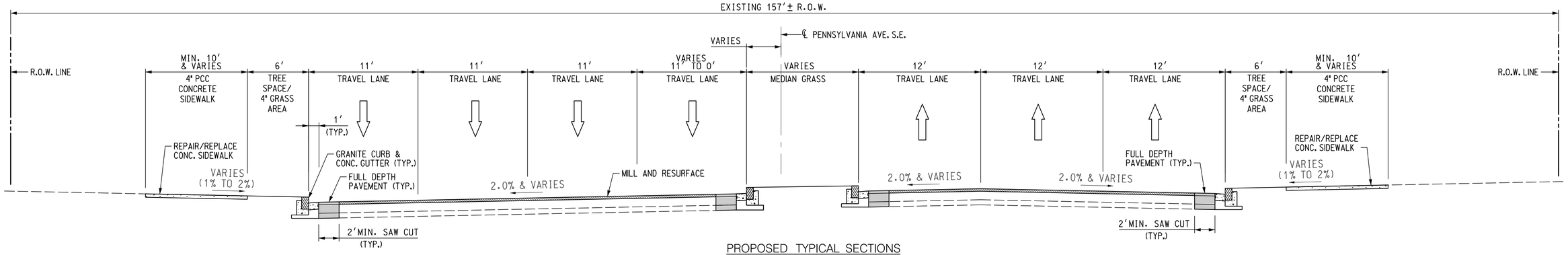


PROPOSED TYPICAL SECTIONS
STA 112+57 TO STA. 113+05.26
N.T.S.

NOTE:

FOR PAVEMENT DETAIL SEE SHEET HT-8.

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HT-5

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROPOSED TYPICAL SECTIONS – 2

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 17 OF 197

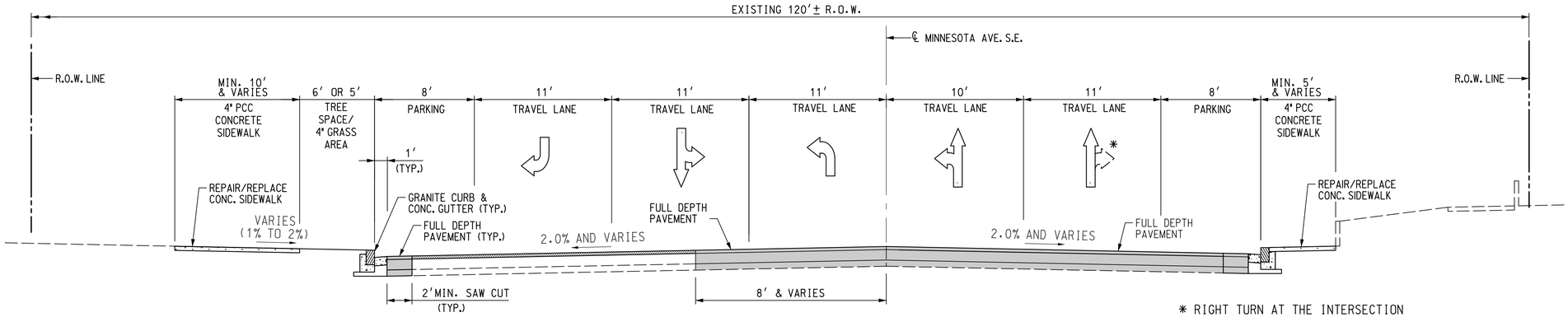
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

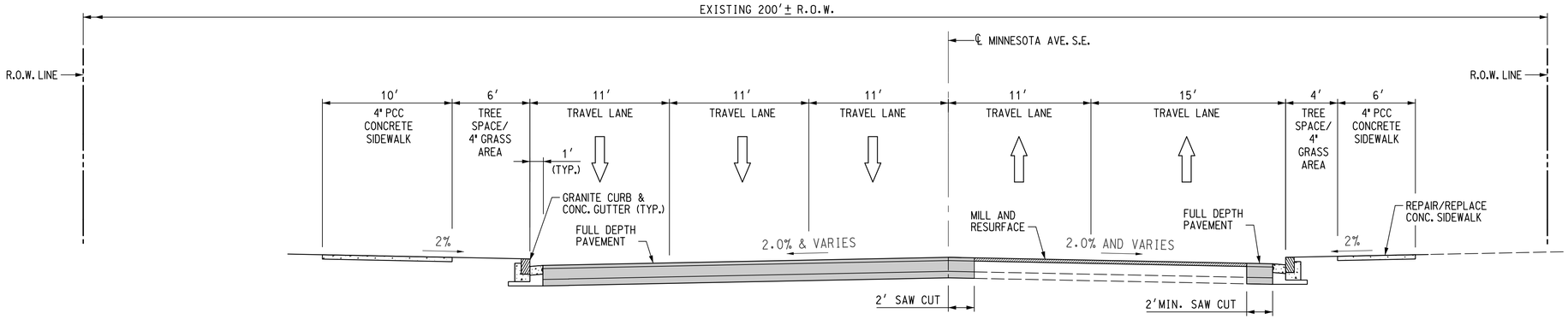
K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Typicals\PHT-X005.EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	18	197

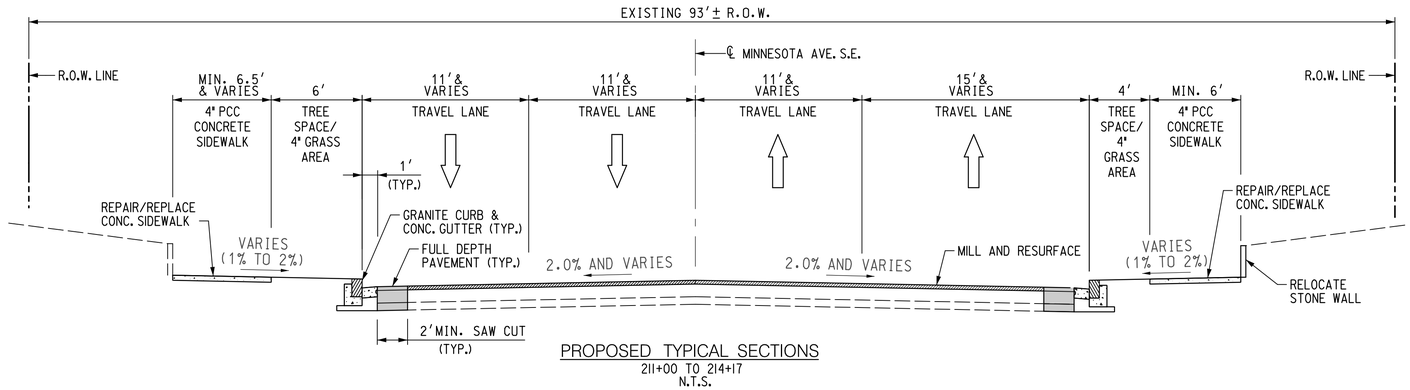


PROPOSED TYPICAL SECTIONS
STA. 203+50 TO 205+50
N.T.S.

* RIGHT TURN AT THE INTERSECTION ALLOWED IN THE MORNING PEAK HOURS.



PROPOSED TYPICAL SECTIONS
STA. 209+15 TO 210+45
N.T.S.



PROPOSED TYPICAL SECTIONS
211+00 TO 214+17
N.T.S.

NOTE:

FOR PAVEMENT DETAIL SEE SHEET HT-8.

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

HT-6

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

PROPOSED TYPICAL SECTIONS – 3

DIVISION CHIEF
DATE
FILE
DWG. 18 OF 197

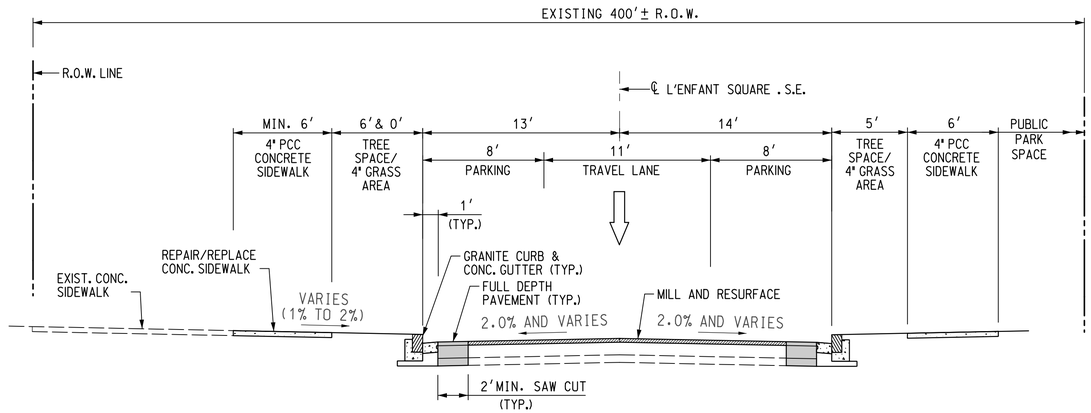
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

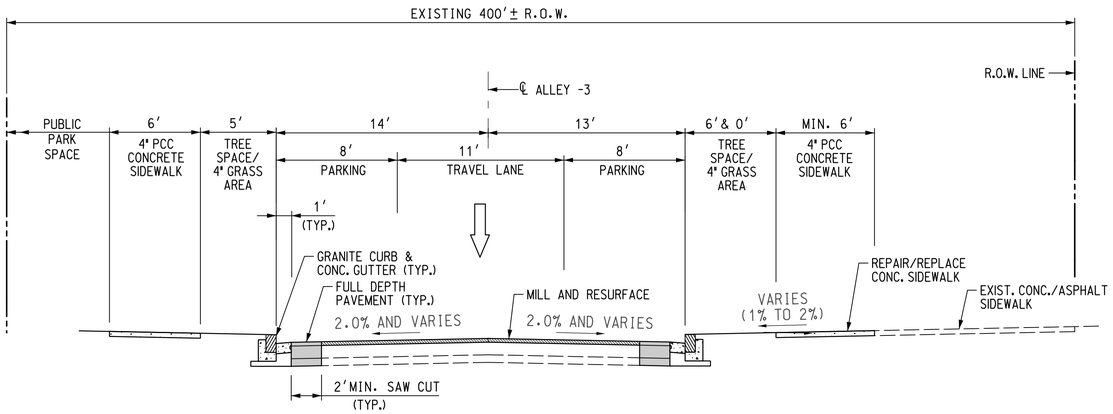
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Typicals\PHT-X006.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

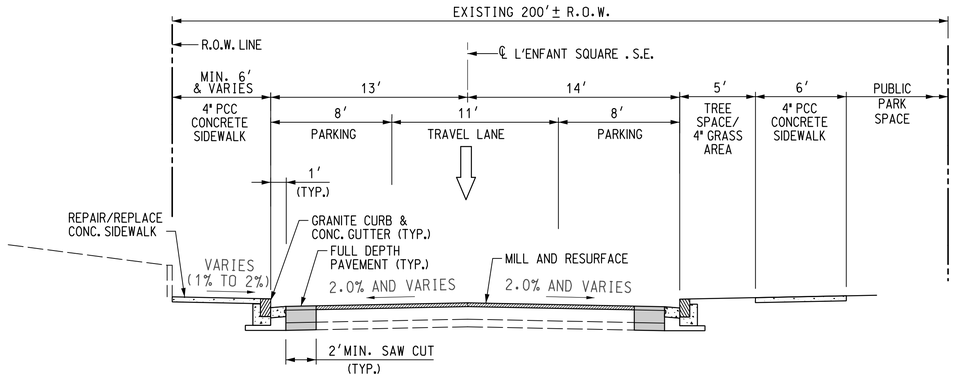
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	19	197



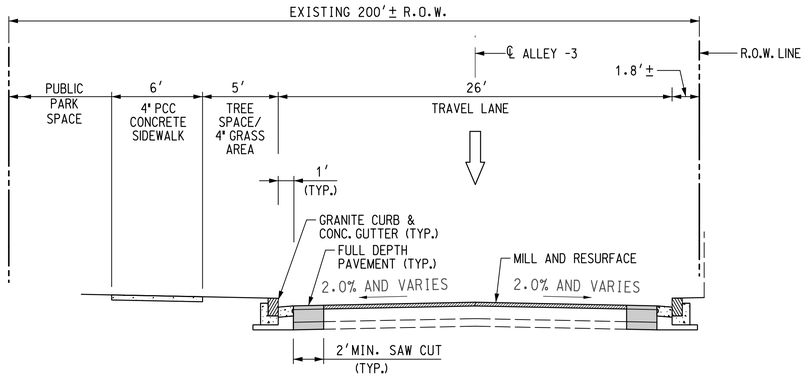
PROPOSED TYPICAL SECTION
(L'ENFANT SQUARE . S.E.)
STA. 21+80.54 TO STA. 22+37.41
N.T.S.



PROPOSED TYPICAL SECTION
(L'ENFANT SQUARE S.E.)
STA. 30+80.47 TO STA. 32+35.17
N.T.S.



PROPOSED TYPICAL SECTION
(L'ENFANT SQUARE . S.E.)
STA. 22+37.41 TO STA. 25+42.14
N.T.S.



PROPOSED TYPICAL SECTION
(L'ENFANT SQUARE S.E.)
STA. 32+35.17 TO STA. 32+82.62
N.T.S.

NOTE:

FOR PAVEMENT DETAIL SEE SHEET HT-8.

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HT-7

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROPOSED TYPICAL SECTIONS – 4

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 19 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

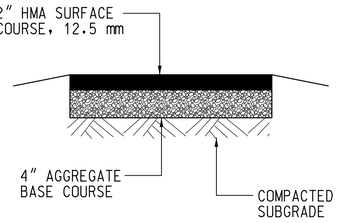
NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Typicals\PHT-X007.EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

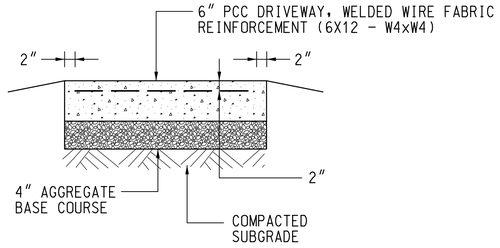
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	20	197

(1)



ASPHALT DRIVEWAY

(2)



CONCRETE DRIVEWAY

PRIVATE DRIVEWAYS

N.T.S.

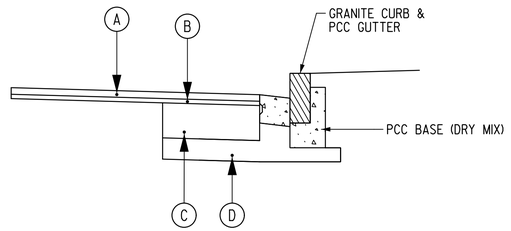
LEGEND:

(A) $2\frac{1}{4}$"-3" SURFACE HOT MIX ASPHALT SURFACE COURSE, SUPERPAVE 12.5mm PG-70-22

(B) $\frac{3}{4}$" HOT MIX ASPHALT LEVELING COURSE, 4.75mm PG-70-22

(C) 8" REINFORCED PORTLAND CEMENT CONCRETE (PCC) BASE

(D) 6" COMPACTED AGGREGATE BASE COURSE



FULL DEPTH PAVEMENT DETAIL

N.T.S.

NOTES:

1. ASPHALT DRIVEWAYS SHALL BE PER DDOT SPEC. 402.
2. CONCRETE DRIVEWAYS SHALL BE PER DDOT SPEC. 605.01.

SHELADIA ASSOCIATES, INC.
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15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA — PRAVIN N. SHELADIA — No. 6840 — REGISTERED PROFESSIONAL ENGINEER

HT-8

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

TYPICAL SECTION DETAILS

DIVISION CHIEF
DATE
FILE
DWG. 20 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Typicals\PHT-X008.E00BIA.dgn
Tuesday, September 25, 2018 AT 11:24 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	21	197

NOTES:

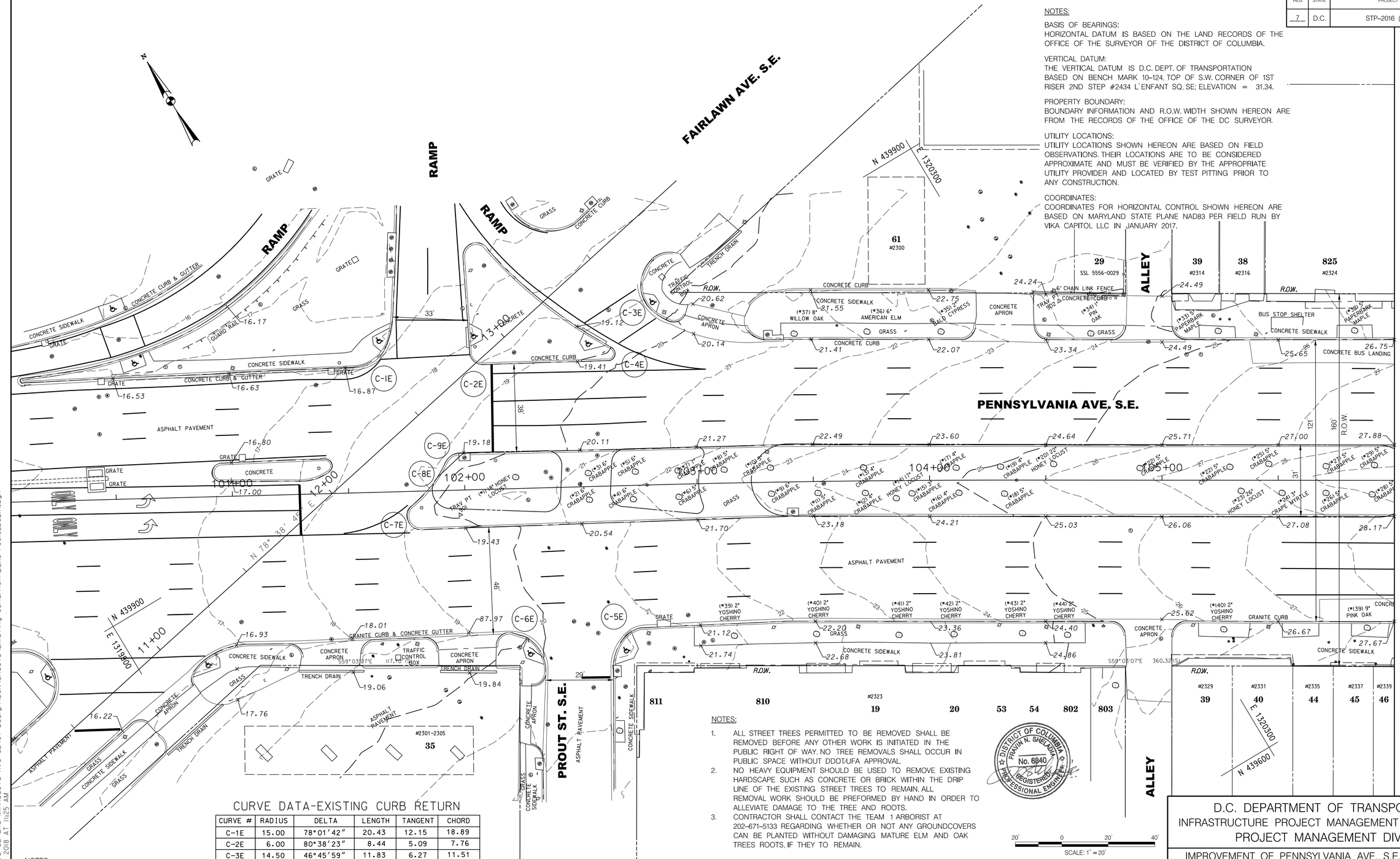
BASIS OF BEARINGS:
HORIZONTAL DATUM IS BASED ON THE LAND RECORDS OF THE OFFICE OF THE SURVEYOR OF THE DISTRICT OF COLUMBIA.

VERTICAL DATUM:
THE VERTICAL DATUM IS D.C. DEPT. OF TRANSPORTATION BASED ON BENCH MARK 10-124, TOP OF S.W. CORNER OF 1ST RISER 2ND STEP #2434 L'ENFANT SQ. SE; ELEVATION = 31.34.

PROPERTY BOUNDARY:
BOUNDARY INFORMATION AND R.O.W. WIDTH SHOWN HEREON ARE FROM THE RECORDS OF THE OFFICE OF THE DC SURVEYOR.

UTILITY LOCATIONS:
UTILITY LOCATIONS SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS. THEIR LOCATIONS ARE TO BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE APPROPRIATE UTILITY PROVIDER AND LOCATED BY TEST PITTING PRIOR TO ANY CONSTRUCTION.

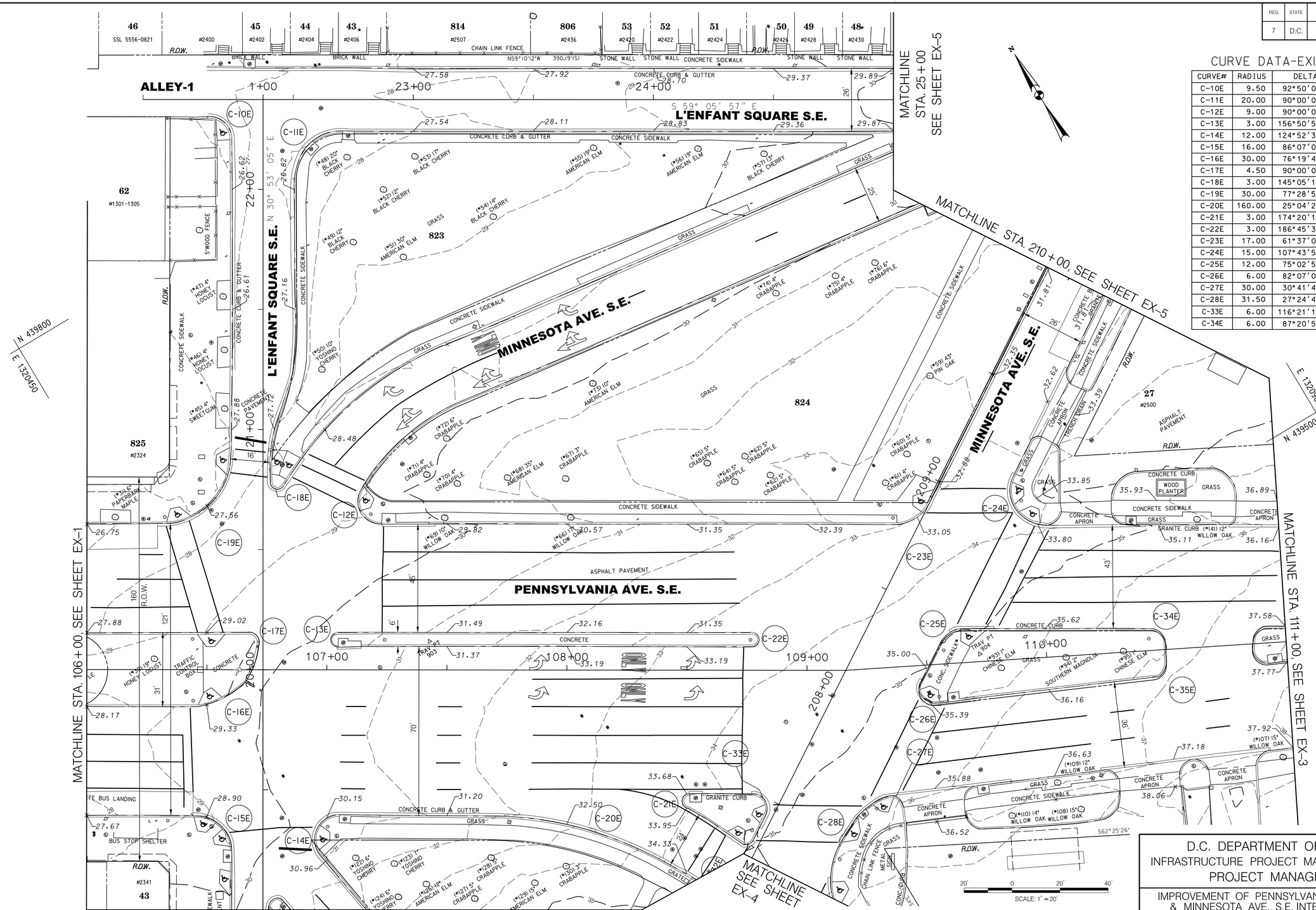
COORDINATES:
COORDINATES FOR HORIZONTAL CONTROL SHOWN HEREON ARE BASED ON MARYLAND STATE PLANE NAD83 PER FIELD RUN BY VIKA CAPITOL LLC IN JANUARY 2017.


FAIRLAWN AVE. S.E.
PENNSYLVANIA AVE. S.E.
PROUT ST. S.E.
RAMP
RAMP
ALLEY
ALLEY
N 439900
E 1320300
N 439600
E 1319600
61 #2300
29 SSL 5556-0029
39 #2314
38 #2316
825 #2324
811
810
#2323
19
20
53
54
802
803
#2329
39
#2331
40
#2335
44
#2337
45
#2339
46
#2301-2305
35
C-1E
C-2E
C-3E
C-4E
C-5E
C-6E
C-7E
C-8E
C-9E
10+00
11+00
12+00
13+00
101+00
102+00
103+00
104+00
105+00
ASPHALT PAVEMENT
CONCRETE SIDEWALK
CONCRETE CURB & GUTTER
GRANITE CURB & CONCRETE GUTTER
CONCRETE CURB
CONCRETE APRON
GRASS
GRATE
TRAFFIC CONTROL BOX
TRENCH DRAIN
GUARD RAIL
6' CHAIN LINK FENCE
BUS STOP SHELTER
CONCRETE BUS LANDING
GRANITE CURB
R.O.W.
166' R.O.W.
121'
38'
49'
29'
S59°03'07"E 117.76'
S59°03'07"E 360.32'(S)
N 78° 38' 45" E
(*37) 8" WILLOW OAK
(*36) 6" AMERICAN ELM
(*35) 7" BALD CYPRESS
(*36) 5" PIN OAK
(*35) 5" PAPERBARK MAPLE
(*39) 5" PAPERBARK MAPLE
(*39) 9" PINK OAK
(*1) 18" HONEY LOCUST
TRAV PT (*3) 5" CRABAPPLE
(*2) 6" CRABAPPLE
(*4) 6" CRABAPPLE
(*5) 6" CRABAPPLE
(*6) 5" CRABAPPLE
(*8) 5" CRABAPPLE
(*10) 5" CRABAPPLE
(*11) 4" CRABAPPLE
(*12) 4" CRABAPPLE
(*13) 4" CRABAPPLE
(*17) 4" CRABAPPLE
(*18) 5" CRABAPPLE
(*19) 4" CRABAPPLE
(*20) 22" HONEY LOCUST
(*21) 5" CRABAPPLE
(*22) 5" CRABAPPLE
(*23) 5" CRABAPPLE
(*25) 5" CRABAPPLE
(*27) 5" CRABAPPLE
(*28) 3" CRAPE MYRTLE
(*29) 5" CRABAPPLE
(*39) 6" CRABAPPLE
(*41) 4" CRABAPPLE
(*40) 2" YOSHINO CHERRY
(*41) 2" YOSHINO CHERRY
(*42) 2" YOSHINO CHERRY
(*43) 2" YOSHINO CHERRY
(*44) 2" YOSHINO CHERRY
(*140) 2" YOSHINO CHERRY
(*25) 26" HONEY LOCUST
(*29) 5" CRABAPPLE
(*28) 5" CRABAPPLE
(*27) 5" CRABAPPLE
(*29) 5" CRABAPPLE
(*29) 5" CRABAPPLE
(*29

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	22	197

CURVE DATA-EXISTING CURB RETURN

CURVE#	RADIUS	DELTA	LENGTH	TANGENT	CHORD
C-10E	9.50	92°50'04"	15.39	9.98	13.76
C-11E	20.00	90°00'00"	31.41	20.00	28.28
C-12E	9.00	90°00'00"	14.14	9.00	12.73
C-13E	3.00	156°50'54"	8.21	14.65	5.88
C-14E	12.00	124°52'32"	26.15	22.99	21.28
C-15E	16.00	86°07'00"	24.05	14.95	21.85
C-16E	30.00	76°19'42"	39.96	23.58	37.07
C-17E	4.50	90°00'00"	7.07	4.50	6.36
C-18E	3.00	145°05'19"	7.60	9.54	5.72
C-19E	30.00	77°28'55"	40.57	24.07	37.55
C-20E	160.00	25°04'20"	70.02	35.57	69.46
C-21E	3.00	174°20'15"	9.13	60.69	5.99
C-22E	3.00	186°45'37"	9.78	50.79	5.99
C-23E	17.00	61°37'00"	18.28	10.14	17.41
C-24E	15.00	107°43'53"	28.20	20.54	24.22
C-25E	12.00	75°02'50"	15.72	9.22	14.62
C-26E	6.00	82°07'09"	8.60	5.23	7.88
C-27E	30.00	30°41'42"	16.07	8.24	15.88
C-28E	31.50	27°24'40"	15.07	7.68	16.79
C-33E	6.00	116°21'13"	12.18	9.67	10.20
C-34E	6.00	87°20'59"	9.15	5.73	8.29



NOTES:

1. FOR EXISTING STORM DRAIN STRUCTURES AND UTILITY LINES, SEE SHEET NOS. UT-1 TO UT-5.
2. FOR EXISTING SIGNING & PAVEMENT MARKING, SEE SHEET NOS. PM-1 TO PM-5.

CAPITOL
ENGINEERS ★ PLANNERS ★ LANDSCAPE ARCHITECTS ★ SURVEYORS ★ SUSTAINABLE DESIGN
VIKA CAPITOL, LLC
★ 4910 MASSACHUSETTS AVENUE, NW SUITE 214 ★ WASHINGTON, DC 20016 ★
Phone: 202.244.4140 ★ Fax:202.244.4196
★ W W W . V I K A C A P I T O L . C O M ★

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

EXISTING CONDITION – 2

PROJECT ENG.	K.M.
DESIGNED BY	M.T.
CHECKED BY	K.M.
DRAWN BY	R.R.
PROJECT MGR.	M.A.

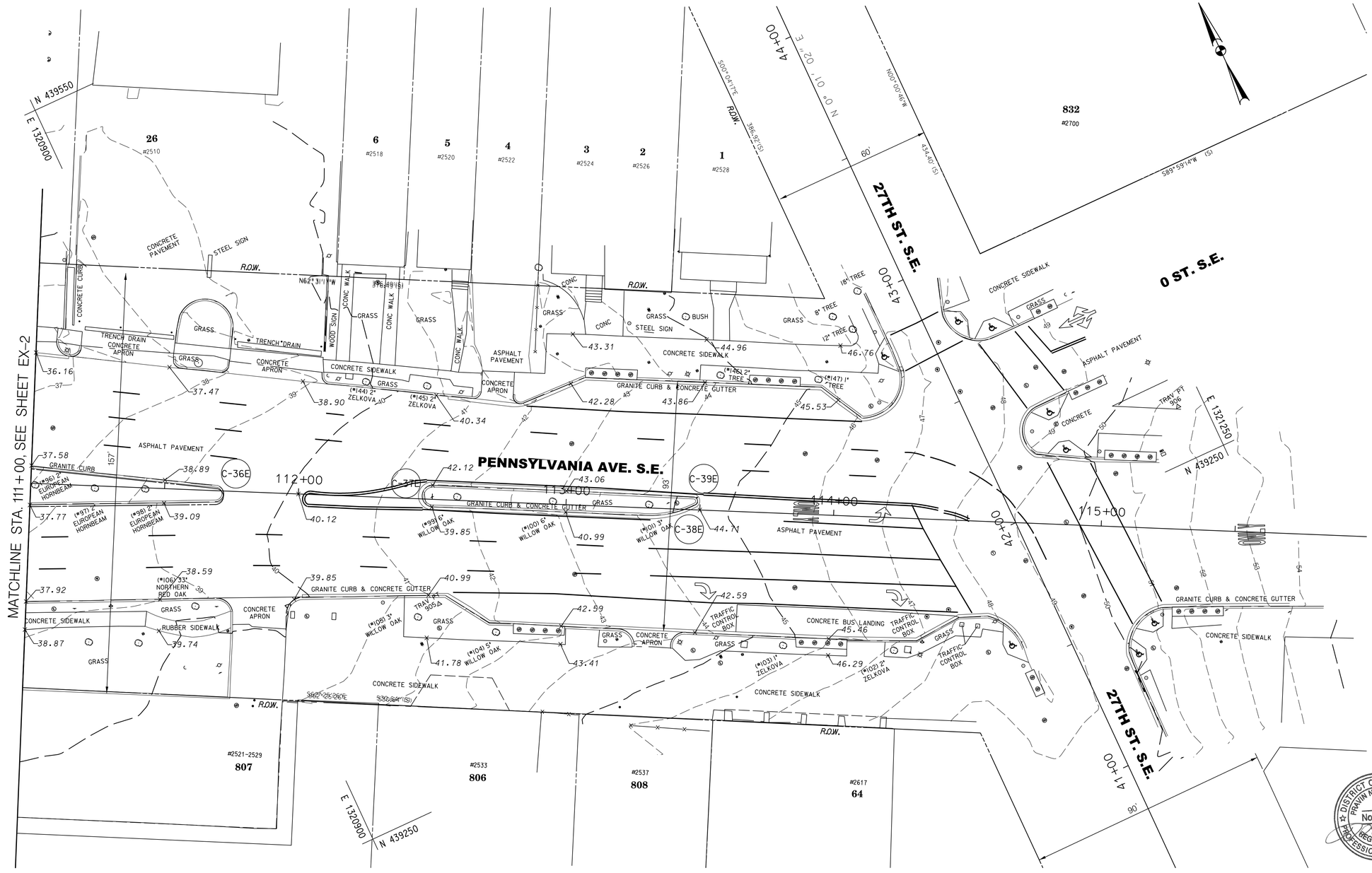
DIVISION CHIEF
DATE
FILE
DWG. 22 OF 197

EX-2

PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER
DISTRICT OF COLUMBIA

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Existing Condition\pEXS-P002.EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	23	197



NOTES:

1. FOR EXISTING STORM DRAIN STRUCTURES AND UTILITY LINES, SEE SHEET NOS. UT-1 TO UT-5.
2. FOR EXISTING SIGNING & PAVEMENT MARKING, SEE SHEET NOS. PM-1 TO PM-5.

CURVE DATA-EXISTING CURB RETURN

CURVE #	RADIUS	DELTA	LENGTH	TANGENT	CHORD
C-36E	3.00	159°53'09"	8.37	16.92	5.91
C-37E	4.00	170°52'38"	11.92	50.15	7.97
C-38E	36.00	28°37'15"	17.98	9.18	17.80
C-39E	1.50	147°49'12"	3.87	5.20	2.88

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

VIKA CAPITOL
ENGINEERS ★ PLANNERS ★ LANDSCAPE ARCHITECTS ★ SURVEYORS ★ SUSTAINABLE DESIGN
VIKA CAPITOL, LLC
★ 4910 MASSACHUSETTS AVENUE, NW SUITE 214 ★ WASHINGTON, DC 20016 ★
Phone: 202.244.4140 ★ Fax:202.244.4196
★ W W W . V I K A C A P I T O L . C O M ★

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Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

EXISTING CONDITION – 3

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

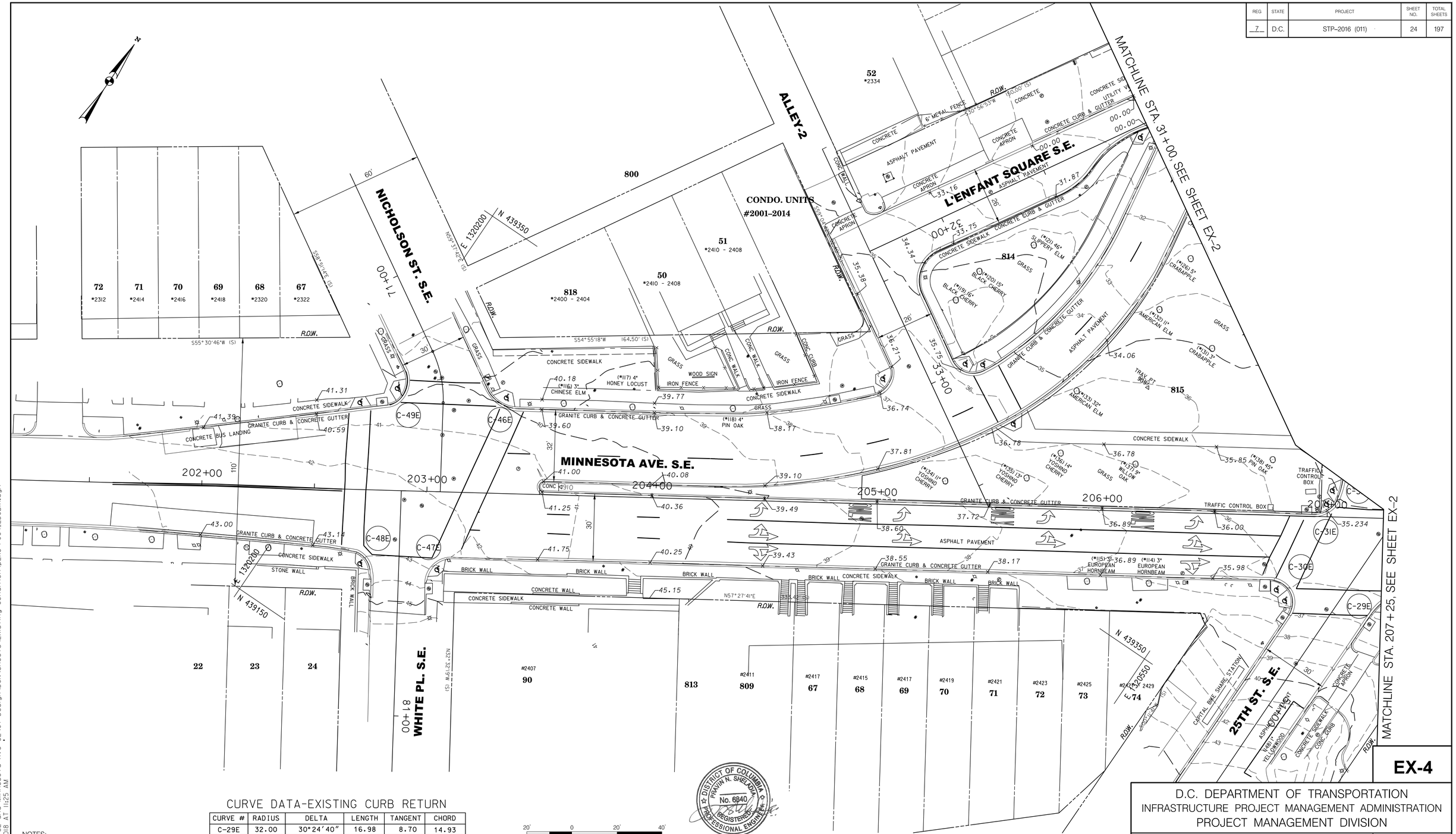
DIVISION CHIEF
DATE
FILE
DWG. 23 OF 197

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

EX-3

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Existing Condition\pEXS-P003.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	24	197



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Tuesday, September 25, 2018 AT 11:25 AM

CURVE DATA-EXISTING CURB RETURN

CURVE #	RADIUS	DELTA	LENGTH	TANGENT	CHORD
C-29E	32.00	30°24'40"	16.98	8.70	14.93
C-30E	10.00	120°40'12"	21.06	17.56	17.38
C-31E	12.00	55°50'02"	11.69	6.36	11.24
C-32E	40.00	26°12'54"	18.30	9.32	18.14
C-46E	17.00	49°57'11"	14.82	9.92	14.36
C-47E	12.00	95°33'25"	20.01	13.22	17.77
C-48E	10.00	59°51'23"	10.45	5.76	10.02
C-49E	11.50	92°09'84"	18.50	11.94	16.48

NOTES:
1. FOR EXISTING STORM DRAIN STRUCTURES AND UTILITY LINES, SEE SHEET NOS. UT-1 TO UT-5.
2. FOR EXISTING SIGNING & PAVEMENT MARKING, SEE SHEET NOS. PM-1 TO PM-5.

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

EX-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

EXISTING CONDITION – 4

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.
DIVISION CHIEF
DATE
FILE
DWG. 24 OF 197

VIKA CAPITOL
ENGINEERS ★ PLANNERS ★ LANDSCAPE ARCHITECTS ★ SURVEYORS ★ SUSTAINABLE DESIGN
VIKA CAPITOL, LLC
★ 4910 MASSACHUSETTS AVENUE, NW SUITE 214 ★ WASHINGTON, DC 20016 ★
Phone: 202.244.4140 ★ Fax:202.244.4196
★WWW.VIKACAPITOL.COM★

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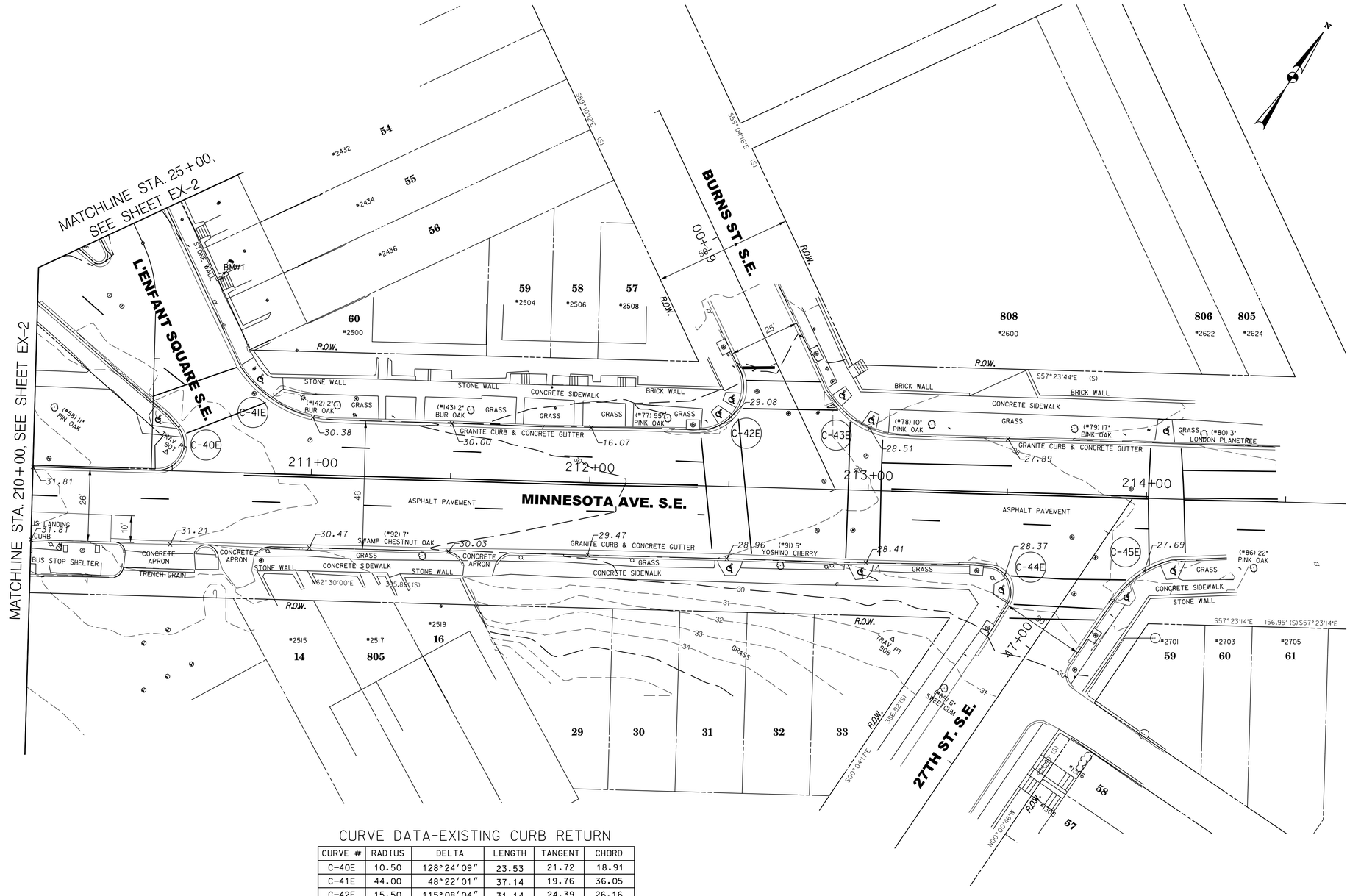
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	25	197



CURVE DATA-EXISTING CURB RETURN

CURVE #	RADIUS	DELTA	LENGTH	TANGENT	CHORD
C-40E	10.50	128°24'09"	23.53	21.72	18.91
C-41E	44.00	48°22'01"	37.14	19.76	36.05
C-42E	15.50	115°08'04"	31.14	24.39	26.16
C-43E	32.00	51°24'31"	28.71	15.40	27.76
C-44E	9.50	102°53'48"	17.06	11.92	14.86
C-45E	33.50	38°40'22"	22.61	11.75	22.18

NOTES:
1. FOR EXISTING STORM DRAIN STRUCTURES AND UTILITY LINES, SEE SHEET NOS. UT-1 TO UT-5.
2. FOR EXISTING SIGNING & PAVEMENT MARKING, SEE SHEET NOS. PM-1 TO PM-5.

SCALE: 1" = 20'

DISTRICT OF COLUMBIA · PRAWIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

EX-5

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

EXISTING CONDITION – 5

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 25 OF 197

VIKA CAPITOL
ENGINEERS ★ PLANNERS ★ LANDSCAPE ARCHITECTS ★ SURVEYORS ★ SUSTAINABLE DESIGN
VIKA CAPITOL, LLC
★ 4910 MASSACHUSETTS AVENUE, NW SUITE 214 ★ WASHINGTON, DC 20016 ★
Phone: 202.244.4140 ★ Fax:202.244.4196
★ W W W . V I K A C A P I T O L . C O M ★

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Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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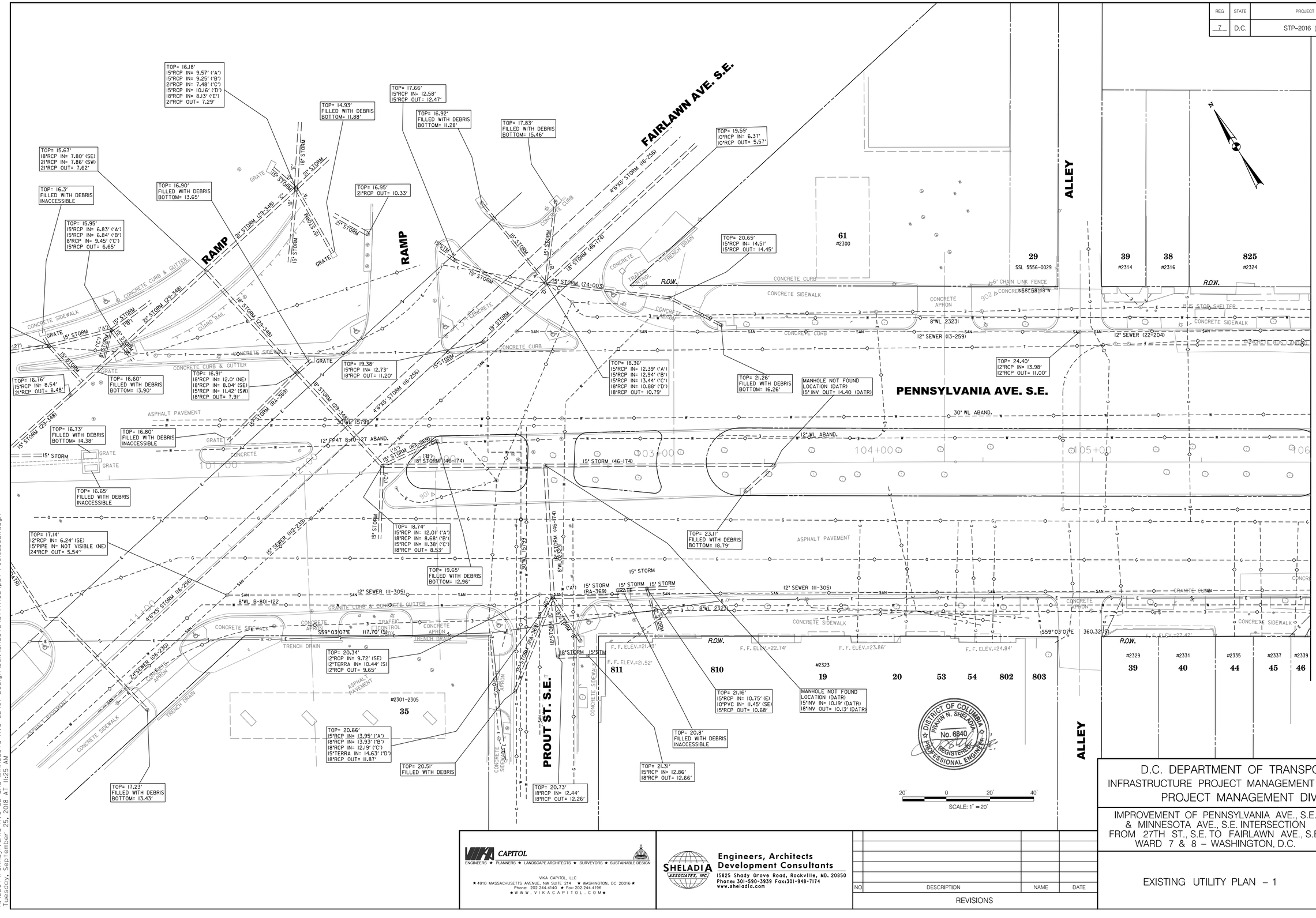
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	26	197



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Tuesday, September 25, 2018 AT 11:25 AM

UT-1

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

EXISTING UTILITY PLAN – 1

PROJECT ENG.	K. M.
DESIGNED BY	M. T.
CHECKED BY	K. M.
DRAWN BY	R. R.
PROJECT MGR.	M. A.

DIVISION CHIEF
DATE
FILE
DWG. 26 OF 197

NO	DESCRIPTION	NAME	DATE

REVISIONS

VIKA CAPITOL
ENGINEERS ★ PLANNERS ★ LANDSCAPE ARCHITECTS ★ SURVEYORS ★ SUSTAINABLE DESIGN
VIKA CAPITOL, LLC
★ 4910 MASSACHUSETTS AVENUE, NW SUITE 214 ★ WASHINGTON, DC 20016 ★
Phone: 202.244.4140 ★ Fax:202.244.4196
★ W W W . V I K A C A P I T O L . C O M ★

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	27	197

MATCHLINE STA. 25+00 SEE SHEET UT-5

MATCHLINE STA. 210+00, SEE SHEET UT-5

MATCHLINE STA. 111+00, SEE SHEET UT-3

MATCHLINE STA. 106+00, SEE SHEET UT-1

MATCHLINE STA. 31+00, SEE SHEET UT-4

ALLEY - 1

L'ENFANT SQUARE S.E.

MINNESOTA AVE. S.E.

MINNESOTA AVE S.E.

PENNSYLVANIA AVE. S.E.

TOP= 26.82'
10"RCP IN= 18.64'
12"RCP OUT= 18.21'

TOP= 27.08'
12"TERRA OUT= 22.79'

TOP= 27.69'
12"TERRA IN= 22.17' (NW)
12"TERRA IN= 23.79' (SE)
12"TERRA IN= 23.89' (SW)
78"TERRA IN= 10.99'
78"TERRA OUT= 10.88'

TOP= 27.79'
12"TERRA OUT= 23.17'

TOP= 27.56'
12"TERRA OUT= 22.96'

TOP= 27.30'
21"RCP IN= 17.10'
21"RCP OUT= 16.68'

TOP= 27.98'
18"RCP IN= 18.43' (S)
18"RCP IN= 19.28' (SE)
21"RCP OUT= 18.28'

TOP= 33.20'
78"TERRA IN= 14.95'
78"TERRA OUT= 14.95'

TOP= 34.72'
6'-0" BRICK IN= 16.53'
6'-0" BRICK OUT= 16.45'

TOP= 27.95'
10"RCP IN= 16.98'
10"RCP OUT= 16.91'

TOP= 28.91'
FILLED WITH DEBRIS
BOTTOM= 22.59'

TOP= 29.62'
18"RCP IN= 24.32' (S)
18"RCP IN= 24.02' (N)
18"RCP OUT= 19.94'

TOP= 34.09'
FILLED WITH WATER
BOTTOM= 23.97'

TOP= 29.53'
FILLED WITH DEBRIS
BOTTOM= 24.41'

TOP= 30.71'
FILLED WITH DEBRIS
BOTTOM= 25.59'

TOP= 34.53'
8"RCP IN= 28.23' (NE)
POSSIBLY ABANDONED
12"RCP IN= 25.28'
12"RCP OUT= 34.43'

TOP= 35.78'
18"RCP IN= 26.88' (E)
8"RCP IN= 30.38' (S)
15"RCP IN= 31.59' (NE)
18"RCP OUT= 23.89'

TOP= 35.92'
FILLED WITH DEBRIS
BOTTOM= 31.73'

TOP= 35.35'
FILLED WITH DEBRIS
BOTTOM= 31.05'

TOP= 36.08'
6"RCP IN= 31.79' (E)
(POSSIBLY ABANDONED)
15"TERRA IN= 32.13' (S)
18"RCP OUT= 27.73'

TOP= 38.07'
FILLED WITH DEBRIS
BOTTOM= 31.64'

TOP= 35.88'
15"RCP OUT= 30.74'

TOP= 29.97'
15"RCP IN= 25.72
18"RCP IN= 19.86'
18"RCP OUT= 19.74

TOP= 29.71'
12"TERRA IN= 25.80'
15"TERRA IN= 23.81' ('A')
15"RCP IN= 21.30' ('B')
18"RCP OUT= 21.19'

TOP= 34.89'
12"RCP IN= 25.99' (SW)
12"RCP IN= 24.99' (NE)
12"RCP OUT= 24.79'

TOP= 34.89'
15"TERRA IN= 28.07' (E)
15"TERRA IN= 28.11' (W)
2'X3' IN= 20.79'
2'X3' OUT= 20.74'

TOP= 28.72'
10"RCP IN= 19.49' (S)
12"RCP IN= 19.24' (SE)
12"RCP OUT= 19.18'

TOP= 30.74'
FILLED WITH DEBRIS
BOTTOM= 27.12'

TOP= 34.25'
FILLED WITH DEBRIS
BOTTOM= 30.75'

TOP= 36.59'
FILLED WITH DEBRIS
BOTTOM= 30.17'

TOP= 29.74'
FILLED WITH DEBRIS
BOTTOM= 27.69'

TOP= 30.11'
15"TERRA IN= 25.01'
15"RCP OUT= 21.68'

TOP= 31.06'
FILLED WITH DEBRIS

TOP= 36.95'
8"PVC IN= 31.51'
8"PVC OUT= 31.39'

62 #1301-1305
823
824
825 #2324
45 #2400
44 #2402
43 #2404
806 #2406
53 #2436
52 #2420
51 #2422
50 #2424
49 #2426
48 #2428
46 #2430
27 #2500
63 #2501

SSL 5556-0821

R.O.W.

CHAIN LINK FENCE

STONE WALL

BRICK WALL

WOOD FENCE

WOOD PLANTER

BRICK DRAIN

TRAFFIC CONTROL BOX

BUS STOP SHELTER

6'X6'-6" STORM (15-232)

12" STORM (45-174)

21" STORM (45-174)

10" STORM (45-174)

10" SEWER (31-409)

12" SEWER (27-324)

8" WL 9962

8" WL 23231

12" WL ABAND.

12" SEWER (11-305)

6'0" STORM (29-344)

6'0" STORM (15-232)

15" STORM

18" STORM

12" STORM

6" STORM

N62°25'25"E

22+00 23+00 24+00 25

21+00 209+00 110+00

107+00 108+00 109+00 208+00

10+00 +00

4304 903

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

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NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6940
REGISTERED
PROFESSIONAL ENGINEER

UT-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

EXISTING UTILITY PLAN – 2

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 27 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Utilities\pUT-P002_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	28	197

MATCHLINE STA. 111+00, SEE SHEET UT-2

PENNSYLVANIA AVE. S.E.

27TH ST S.E.

0 ST S.E.

TOP= 37.57'
6'-0" BRICK IN= 20.72'
6'-0" BRICK OUT= 20.57'

TOP= 43.07'
15"RCP OUT= 36.77'

TOP= 45.29'
15"RCP OUT= 39.14'

TOP= 45.28'
15"RCP IN= 36.21' (N)
15"RCP IN= 30.66' (S)
6'-0" BRICK IN= 30.63'
6'-0" BRICK OUT= 30.51'

TOP= 42.66'
6'-0" BRICK IN= 27.30'
6'-0" BRICK OUT= 27.16'

TOP= 46.47'
6'-0" BRICK IN= 31.80'
6'-0" BRICK OUT= 31.71'

TOP= 42.84'
15"RCP IN= 33.56'
15"RCP OUT= 33.34'

TOP= 45.38'
15"RCP IN= 37.06'
15"RCP OUT= 35.23'

TOP= 43.10'
15"RCP OUT= 35.60'

TOP= 45.62'
15"RCP OUT= 40.42'

TOP= 48.58'
15"RCP OUT= 43.93'

TOP= 48.73'
15"RCP IN= 43.93' (N)
15"RCP IN= 43.74' (S)
18"RCP OUT= 42.12'

TOP= 47.78'
18"RCP IN= 37.03' (E)
24"RCP IN= 37.98' (N)
21"RCP OUT= 36.84'

TOP= 48.46'
10"RCP IN= 40.96'
10"RCP OUT= 40.73'

TOP= 49.33'
15"RCP OUT= 44.31'

TOP= 48.79'
15"RCP IN= 43.33' (SE)
15"RCP IN= 42.14' (NW)
18"RCP IN= 38.38' (E)
18"RCP OUT= 38.15'

TOP= 49.40'
15"RCP OUT= 44.24'

TOP= 50.64'
15"RCP OUT= 45.54'

TOP= 50.14'
15"RCP IN= 45.12'
3'-3" RCP IN= 37.44'
3'-3" RCP OUT= 37.31'

TOP= 48.37'
15"RCP IN= 44.63'
3'-3"RCP IN= 35.47'
3'-3" RCP OUT= 35.40'

TOP= 48.85'
12"RCP IN= 39.25' (SE)
12"RCP IN= 39.77' (S)
12"RCP OUT= 39.19'

TOP= 51.42'
15"RCP IN= 46.19'
15"RCP OUT= 44.32'

TOP= 51.80'
15"RCP OUT= 45.81'

TOP= 49.70'
18"RCP IN= 41.72'
18"RCP OUT= 41.62'

8"WL 6191 · 6"O" STORM (29-344) · 8"WL 10230 · 21" STORM · 8"WL 9343 · 10" SEWER (16-231) · 18" STORM (41-417) · 15" STORM · 3'-3" STORM (29-344) · 12"WL 2499 · 12" SEWER (11-305) · 8"WL 8617 · 8"WL 19865 · 18" STORM · 24"WL 12529 · 18" STORM (16-231) · 12" SEWER (11-306)

26 · 6 · 5 · 4 · 3 · 2 · 1 · 832 #2700 · #2521-2529 807 · #2533 806 · #2537 808 · #2617 64

112+00 · 113+00 · 114+00 · 115+00 · 116+00 · 41+00 · 42+00 · 43+00 · 44+00

TRENCH DRAIN · CONC · TRAFFIC CONTROL BOX · CONCRETE · R.O.W. · 90°

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

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★ W W W . V I K A C A P I T O L . C O M ★

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Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

UT-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

EXISTING UTILITY PLAN – 3

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 28 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Utilities\pUT-P003.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	29	197

N

ALLEY - 2

ALLEY

NICHOLSON ST S.E.

L'ENFANT SQUARE S.E.

MINNESOTA AVE. S.E.

WHITE PL S.E.

MATCHLINE STA. 31+00, SEE SHEET UT-2

MATCHLINE STA. 207+25, SEE SHEET UT-2

R.O.W.

TOP= 34.39'
10"RCP IN= 26.00'
10"RCP OUT= 25.95'

TOP= 34.80'
10"RCP OUT= 26.20'

F. F. ELEV.=32.44'

F. F. ELEV.=35.23'

6' METAL FENCE

CONC. WALL

10"SEWER (37-323)

10"SEWER (49-193)

8"WL FP 2522

10"SEWER (09-207)

TOP= 39.69'
10"RCP IN= 30.07' (NE)
10"RCP IN= 30.30' (SW)
10"RCP OUT= 29.90'

F. F. ELEV.=38.97'

F. F. ELEV.=40.25'

TOP= 36.37'
10"RCP OUT= 31.68'

TOP= 42.12'
24"BRICK IN= 27.77'
2'X3' BRICK OUT= 27.75'

TOP= 42.60'
10"RCP IN= 32.00' (SW)
10"RCP IN= 31.65' (SE)
10"RCP OUT= 31.55'

10"SEWER (25-427)

10"SEWER (09-208)

IRON FENCE

6"WL 2323

12" PIPE OUT?

TOP= 37.81'
FILLED WITH DEBRIS
UNABLE TO DETERMINE
"OUT" CONNECTION

TOP= 38.83'
2'X3' IN= 25.23'
2'X3' OUT= 25.23'

TOP= 35.21'
15"TERRA IN= 30.24' ('A')
15"TERRA IN= 27.86' ('B')
15"TERRA IN= 26.50' ('C')
2'X3' IN= 21.83'
2'X3' OUT= 21.70'

TOP= 35.70'
FILLED WITH DEBRIS
BOTTOM= 31.10'

TRAFFIC CONTROL BOX

202+00

203+00

204+00

205+00

206+00

207+00

32+00

33+00

12"WL FP47

20"WL 2598

10"SEWER (12-322)

2'X3' STORM (28-323)

10"SEWER (34-240)

10"SEWER (27-319)

20"WL 2599

15" STORM "B"

15" STORM "C"

10"SEWER (12-319)

STONE WALL

BRICK WALL

CONCRETE WALL

8"WL 12709

10"SEWER (23-212)

TOP= 44.60'
FILLED WITH DEBRIS
BOTTOM= 42.30'

TOP= 44.51'
FILLED WITH DEBRIS
BOTTOM= 43.56'

TOP= 36.65'
FILLED WITH DEBRIS
BOTTOM= 32.50'

TOP= 37.66'
FILLED WITH DEBRIS
BOTTOM= 33.06'

TOP= 37.33'
FILLED WITH DEBRIS
BOTTOM= 33.13'

TOP= 35.79'
10"RCP IN= 30.37'
10"RCP OUT= 30.35'

TOP= 36.53'
10"RCP IN= 30.18'
12"RCP IN= 30.14'
10"RCP OUT= 30.01'

F. F. ELEV.=38.20'

F. F. ELEV.=37.92'

F. F. ELEV.=43.13'

10"SEWER (18-101)
SHED TOP?

CAPITAL BIKE SHARE STATION

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

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

UT-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

EXISTING UTILITY PLAN – 4

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 29 OF 197

VIKA CAPITOL
ENGINEERS ★ PLANNERS ★ LANDSCAPE ARCHITECTS ★ SURVEYORS ★ SUSTAINABLE DESIGN
VIKA CAPITOL, LLC
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Phone: 202.244.4140 ★ Fax:202.244.4196
★ W W W . V I K A C A P I T O L . C O M ★

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Engineers, Architects
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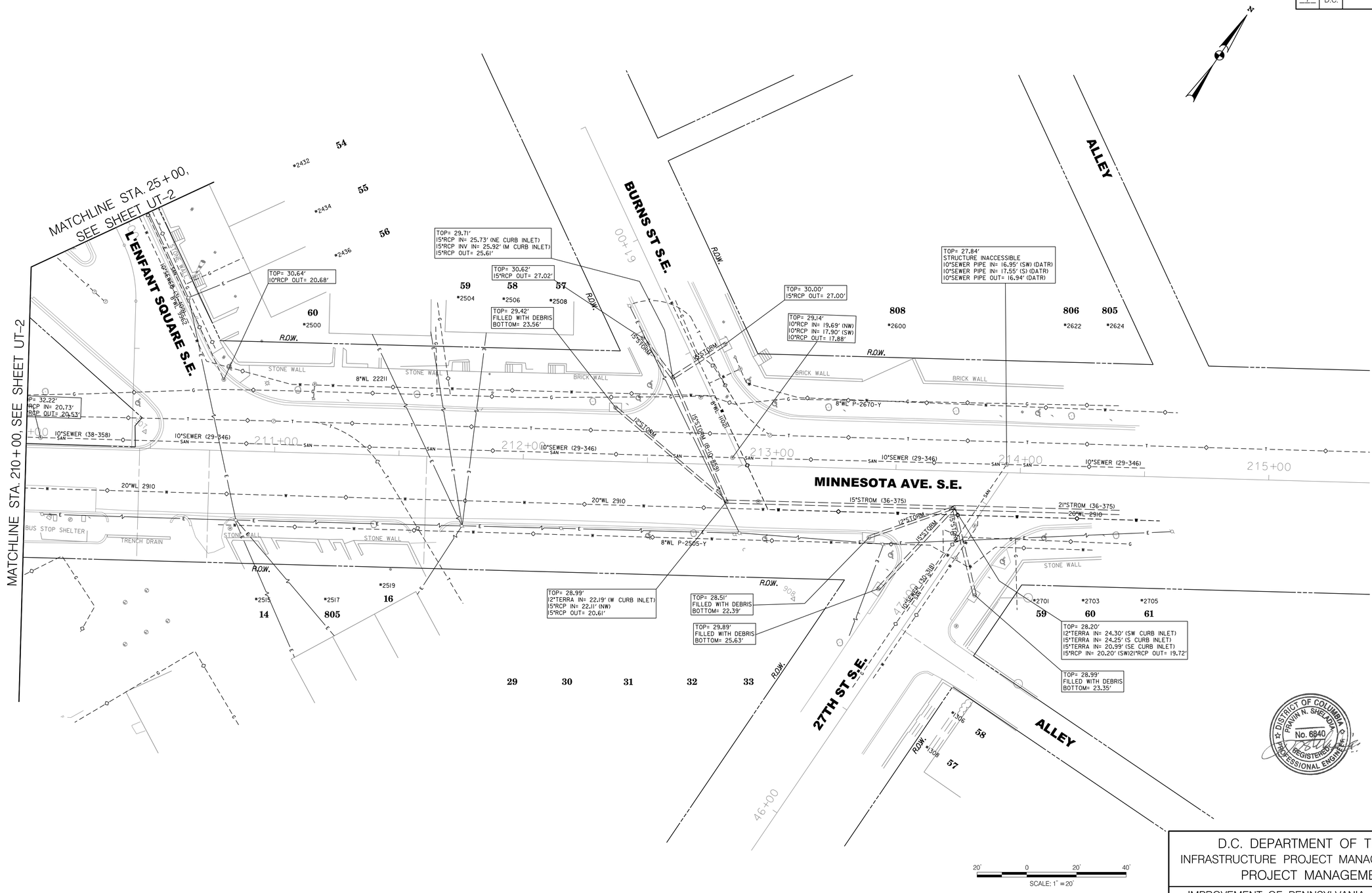
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Utilities\pUT-P004_ED08A.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	30	197



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

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

UT-5

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

EXISTING UTILITY PLAN – 5

PROJECT ENG.	K. M.
DESIGNED BY	M. T.
CHECKED BY	K. M.
DRAWN BY	R. R.
PROJECT MGR.	M. A.

DIVISION CHIEF
DATE
FILE
DWG. 30 OF 197

NO	DESCRIPTION	NAME	DATE

REVISIONS

VIKA CAPITOL
ENGINEERS ★ PLANNERS ★ LANDSCAPE ARCHITECTS ★ SURVEYORS ★ SUSTAINABLE DESIGN
VIKA CAPITOL, LLC
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★ W W W . V I K A C A P I T O L . C O M ★

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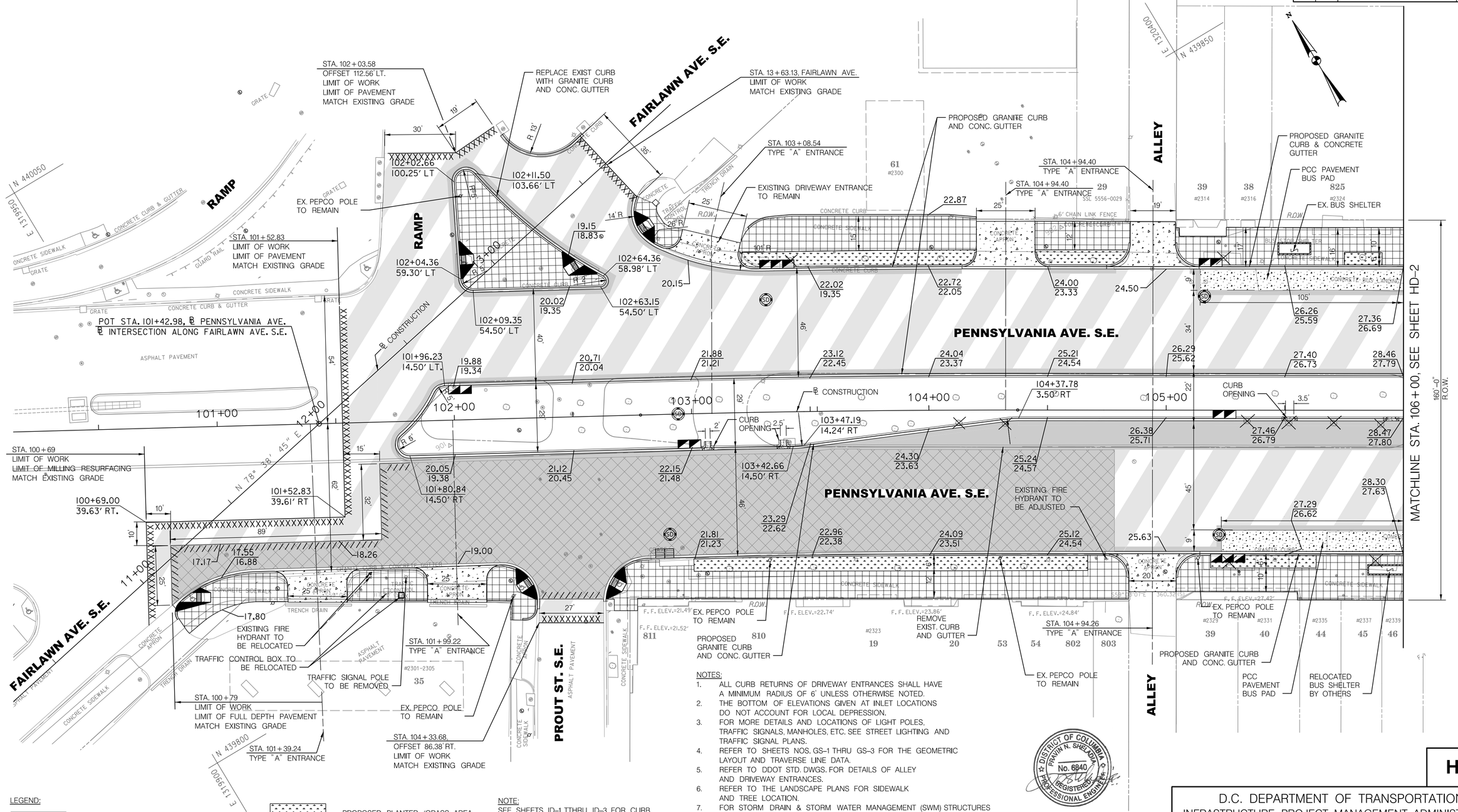
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	31	197



NOTES:

1. ALL CURB RETURNS OF DRIVEWAY ENTRANCES SHALL HAVE A MINIMUM RADIUS OF 6' UNLESS OTHERWISE NOTED.
2. THE BOTTOM OF ELEVATIONS GIVEN AT INLET LOCATIONS DO NOT ACCOUNT FOR LOCAL DEPRESSION.
3. FOR MORE DETAILS AND LOCATIONS OF LIGHT POLES, TRAFFIC SIGNALS, MANHOLES, ETC. SEE STREET LIGHTING AND TRAFFIC SIGNAL PLANS.
4. REFER TO SHEETS NOS. GS-1 THRU GS-3 FOR THE GEOMETRIC LAYOUT AND TRAVERSE LINE DATA.
5. REFER TO DDOT STD. DWGS. FOR DETAILS OF ALLEY AND DRIVEWAY ENTRANCES.
6. REFER TO THE LANDSCAPE PLANS FOR SIDEWALK AND TREE LOCATION.
7. FOR STORM DRAIN & STORM WATER MANAGEMENT (SWM) STRUCTURES AND PIPES SEE SHEETS SD-1 THRU SD-5 AND SW-1 THRU SW-12 RESPECTIVELY.
8. ANY FIRE HYDRANTS MUST BE COORDINATED WITH THE FIRE MARSHALL.
9. ALL FIRE HYDRANT TO BE RELOCATED MUST BE RELOCATED A MINIMUM 2' FROM THE PROPOSED CURB.

LEGEND:

- FULL DEPTH PAVEMENT
- RESURFACING
- PROPOSED CONCRETE DIVEWAY BUS PAD/SIDEWALK
- PROPOSED EXPOSED AGGREGATE SIDEWALK
- DEMOLITION OF PAVEMENT
- PROPOSED PLANTER /GRASS AREA
- PROPOSED POROUS RUBBER SIDEWALK
- XXXXXXXXX LIMIT OF MILLING AND RESURFACING
- LIMIT OF FULL DEPTH PAVEMENT
- EX. TREE (TO BE REMOVED)
- T.C. / B.C. PROP. TOP CURB ELEVATION / PROP. BOTTOM CURB ELEVATION

NOTE:
SEE SHEETS ID-1 TTHRU ID-3 FOR CURB AND INTERSECTION DETAIL.

SCALE: 1" = 20'

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6940
REGISTERED PROFESSIONAL ENGINEER

HD-1

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PAVEMENT PLAN – 1

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 31 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\pHD-P001_ED0B1A.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	32	197

CURVE DATA-PROPOSED CURB RETURN

CURVE#	RADIUS	DELTA	TANGENT	CHORD	PC STA.	OFFSET	PT STA.	OFFSET	ALONG BASELINE
C2-1	30.00	90°03'40"	30.03	42.45	106+30.30	60.50 (L)	106+60.30	90.53 (L)	PENNSYLVANIA AVE.
C2-2	30.00	89°56'20"	29.97	42.40	107+09.30	60.50 (L)	106+79.30	90.47 (L)	PENNSYLVANIA AVE.
C2-3	20.00	90°03'40"	20.02	28.30	107+07.48	60.50 (R)	106+87.48	86.52 (R)	PENNSYLVANIA AVE.
C2-4	20.00	89°56'20"	28.27	21.22	106+48.48	60.50 (R)	106+68.48	80.48 (R)	PENNSYLVANIA AVE.
C2-5	50.00	63°29'54"	30.94	52.62	108+73.01	49.50 (L)	109+22.86	76.89 (L)	PENNSYLVANIA AVE.
C2-6	15.00	116°49'50"	24.32	25.53	110+03.43	54.76 (L)	109+91.43	77.30 (L)	PENNSYLVANIA AVE.
C2-7	35.00	113°54'11"	53.80	58.67	109+37.85	53.06 (R)	109+15.48	104.17 (R)	PENNSYLVANIA AVE.
C2-8	25.00	116°30'06"	40.40	42.52	108+03.22	71.50 (R)	108+25.59	107.66 (R)	PENNSYLVANIA AVE.
C2-9	10.00	90°00'00"	10.00	14.14	22+20.41	13.00 (L)	22+30.41	23.00 (L)	L'ENFANT SQ.
C2-10	20.00	90°59'04"	20.00	28.29	22+03.40	14.00 (R)	22+71.42	14.00 (R)	L'ENFANT SQ.

LEGEND:

- FULL DEPTH PAVEMENT
- RESURFACING
- PROPOSED CONCRETE DRIVEWAY /BUS PAD / SIDEWALK
- PROPOSED EXPOSED AGGREGATE SIDEWALK
- PROPOSED PLANTER / GRASS AREA
- PROPOSED POROUS RUBBER SIDEWALK
- XXXXXXXXX LIMIT OF MILLING AND RESURFACING
- EX. TREE (TO BE REMOVED)
- DEMOLITION OF PAVEMENT
- T.C. / B.C. PROP. TOP CURB ELEV. / PROP. BOTTOM CURB ELEV.

NOTES:

1. ALL CURB RETURNS OF DRIVEWAY ENTRANCES SHALL HAVE A MINIMUM RADIUS OF 6' UNLESS OTHERWISE NOTED.
2. THE BOTTOM OF ELEVATIONS GIVEN AT INLET LOCATIONS DO NOT ACCOUNT FOR LOCAL DEPRESSION.
3. FOR MORE DETAILS AND LOCATIONS OF LIGHT POLES, TRAFFIC SIGNALS, MANHOLES, ETC. SEE STREET LIGHTING AND TRAFFIC SIGNAL PLANS.
4. REFER TO SHEETS NOS. GS-1 THRU GS-3 FOR THE GEOMETRIC LAYOUT AND TRAVERSE LINE DATA.
5. REFER TO DDOT STD. DWGS. FOR DETAILS OF ALLEY AND DRIVEWAY ENTRANCES.
6. REFER TO THE LANDSCAPE PLANS FOR SIDEWALK AND TREE LOCATION.
7. FOR STORM DRAIN & STORM WATER MANAGEMENT (SWM) STRUCTURES AND PIPES SEE SHEETS SD-1 THRU SD-5 AND SW-1 THRU SW-12 RESPECTIVELY.
8. ANY FIRE HYDRANTS MUST BE COORDINATED WITH THE FIRE MARSHALL.
9. ALL FIRE HYDRANT TO BE RELOCATED MUST BE RELOCATED A MINIMUM 2' FROM THE PROPOSED CURB.

DISTRICT OF COLUMBIA · PRAWN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

HD-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

PAVEMENT PLAN – 2

DIVISION CHIEF
DATE
FILE
DWG. 32 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

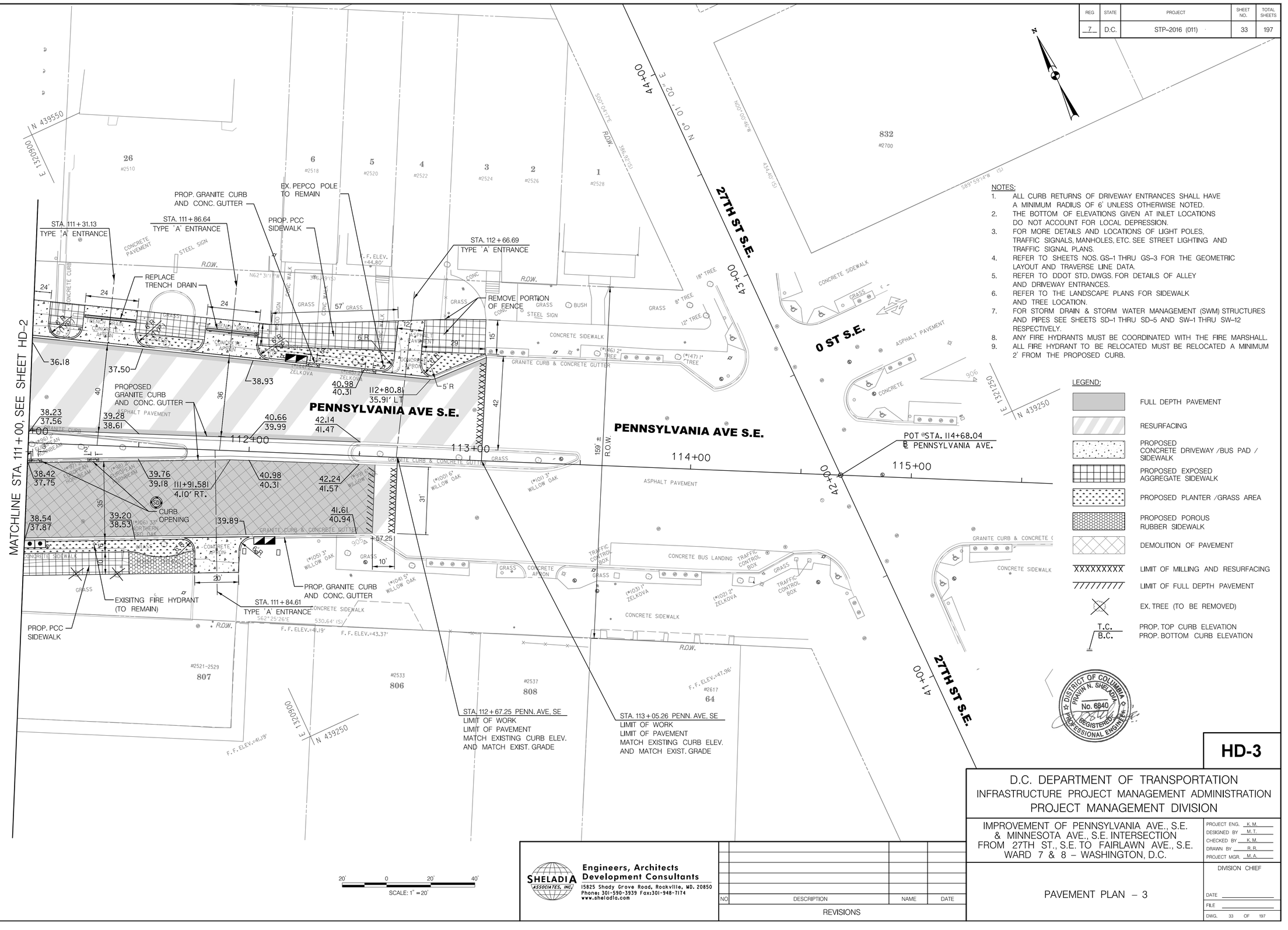
NO	DESCRIPTION	NAME	DATE

REVISIONS

SCALE: 1" = 20'

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\PHD-P002.EDGN1A.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	33	197



NOTES:

1. ALL CURB RETURNS OF DRIVEWAY ENTRANCES SHALL HAVE A MINIMUM RADIUS OF 6' UNLESS OTHERWISE NOTED.
2. THE BOTTOM OF ELEVATIONS GIVEN AT INLET LOCATIONS DO NOT ACCOUNT FOR LOCAL DEPRESSION.
3. FOR MORE DETAILS AND LOCATIONS OF LIGHT POLES, TRAFFIC SIGNALS, MANHOLES, ETC. SEE STREET LIGHTING AND TRAFFIC SIGNAL PLANS.
4. REFER TO SHEETS NOS. GS-1 THRU GS-3 FOR THE GEOMETRIC LAYOUT AND TRAVERSE LINE DATA.
5. REFER TO DDOT STD. DWGS. FOR DETAILS OF ALLEY AND DRIVEWAY ENTRANCES.
6. REFER TO THE LANDSCAPE PLANS FOR SIDEWALK AND TREE LOCATION.
7. FOR STORM DRAIN & STORM WATER MANAGEMENT (SWM) STRUCTURES AND PIPES SEE SHEETS SD-1 THRU SD-5 AND SW-1 THRU SW-12 RESPECTIVELY.
8. ANY FIRE HYDRANTS MUST BE COORDINATED WITH THE FIRE MARSHALL.
9. ALL FIRE HYDRANT TO BE RELOCATED MUST BE RELOCATED A MINIMUM 2' FROM THE PROPOSED CURB.

LEGEND:

- FULL DEPTH PAVEMENT
- RESURFACING
- PROPOSED CONCRETE DRIVEWAY /BUS PAD / SIDEWALK
- PROPOSED EXPOSED AGGREGATE SIDEWALK
- PROPOSED PLANTER /GRASS AREA
- PROPOSED POROUS RUBBER SIDEWALK
- DEMOLITION OF PAVEMENT
- XXXXXXXXX LIMIT OF MILLING AND RESURFACING
- LIMIT OF FULL DEPTH PAVEMENT
- EX. TREE (TO BE REMOVED)
- T.C. / B.C. PROP. TOP CURB ELEVATION / PROP. BOTTOM CURB ELEVATION

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HD-3

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

PAVEMENT PLAN – 3

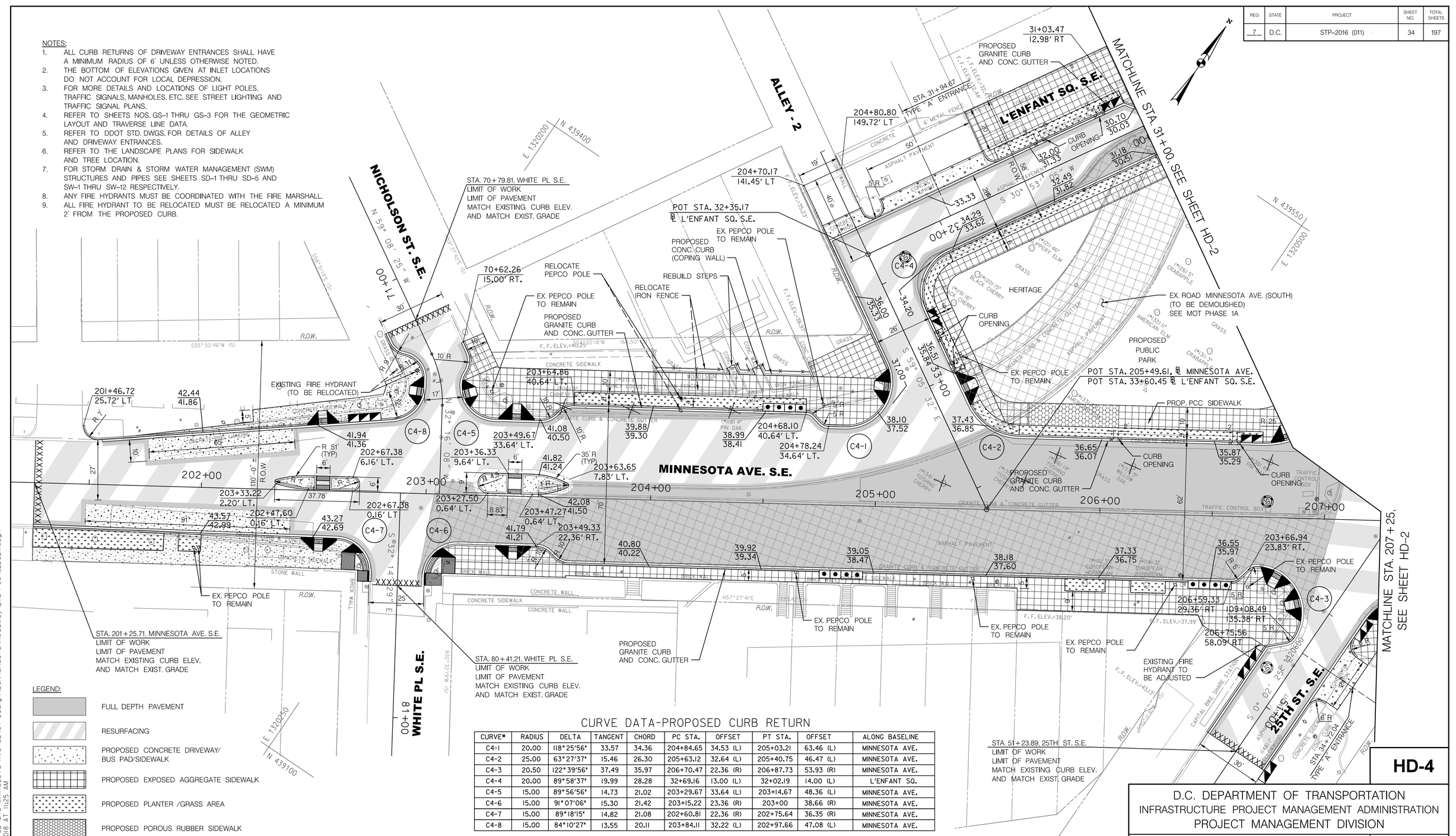
DIVISION CHIEF
DATE
FILE
DWG. 33 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\pHD-P003.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	34	197

NOTES:

1. ALL CURB RETURNS OF DRIVEWAY ENTRANCES SHALL HAVE A MINIMUM RADIUS OF 6' UNLESS OTHERWISE NOTED.
2. THE BOTTOM OF ELEVATIONS GIVEN AT INLET LOCATIONS DO NOT ACCOUNT FOR LOCAL DEPRESSION.
3. FOR MORE DETAILS AND LOCATIONS OF LIGHT POLES, TRAFFIC SIGNALS, MANHOLES, ETC. SEE STREET LIGHTING AND TRAFFIC SIGNAL PLANS.
4. REFER TO SHEETS NOS. GS-1 THRU GS-3 FOR THE GEOMETRIC LAYOUT AND TRAVERSE LINE DATA.
5. REFER TO DDOT STD. DWGS. FOR DETAILS OF ALLEY AND DRIVEWAY ENTRANCES.
6. REFER TO THE LANDSCAPE PLANS FOR SIDEWALK AND TREE LOCATION.
7. FOR STORM DRAIN & STORM WATER MANAGEMENT (SWM) STRUCTURES AND PIPES SEE SHEETS SD-1 THRU SD-5 AND SW-1 THRU SW-12 RESPECTIVELY.
8. ANY FIRE HYDRANTS MUST BE COORDINATED WITH THE FIRE MARSHALL.
9. ALL FIRE HYDRANT TO BE RELOCATED MUST BE RELOCATED A MINIMUM 2' FROM THE PROPOSED CURB.



LEGEND:

- FULL DEPTH PAVEMENT
- RESURFACING
- PROPOSED CONCRETE DRIVEWAY/ BUS PAD/SIDEWALK
- PROPOSED EXPOSED AGGREGATE SIDEWALK
- PROPOSED PLANTER /GRASS AREA
- PROPOSED POROUS RUBBER SIDEWALK
- XXXXXXXXX LIMIT OF MILLING AND RESURFACING
- EX. TREE (TO BE REMOVED)
- DEMOLITION OF PAVEMENT
- T.C. / B.C. PROP. TOP CURB ELEV. / PROP. BOTTOM CURB ELEV.

CURVE DATA-PROPOSED CURB RETURN

CURVE#	RADIUS	DELTA	TANGENT	CHORD	PC STA.	OFFSET	PT STA.	OFFSET	ALONG BASELINE
C4-1	20.00	118°25'56"	33.57	34.36	204+84.65	34.53 (L)	205+03.21	63.46 (L)	MINNESOTA AVE.
C4-2	25.00	63°27'37"	15.46	26.30	205+63.12	32.64 (L)	205+40.75	46.47 (L)	MINNESOTA AVE.
C4-3	20.50	122°39'56"	37.49	35.97	206+70.47	22.36 (R)	206+87.73	53.93 (R)	MINNESOTA AVE.
C4-4	20.00	89°58'37"	19.99	28.28	32+69.16	13.00 (L)	32+02.19	14.00 (L)	L'ENFANT SQ.
C4-5	15.00	89°56'56"	14.73	21.02	203+29.67	33.64 (L)	203+14.67	48.36 (L)	MINNESOTA AVE.
C4-6	15.00	91°07'06"	15.30	21.42	203+15.22	23.36 (R)	203+00	38.66 (R)	MINNESOTA AVE.
C4-7	15.00	89°18'15"	14.82	21.08	202+60.81	22.36 (R)	202+75.64	36.35 (R)	MINNESOTA AVE.
C4-8	15.00	84°10'27"	13.55	20.11	203+84.11	32.22 (L)	202+97.66	47.08 (L)	MINNESOTA AVE.

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

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

HD-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PAVEMENT PLAN – 4

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 34 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\pHD-P004_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:25 AM

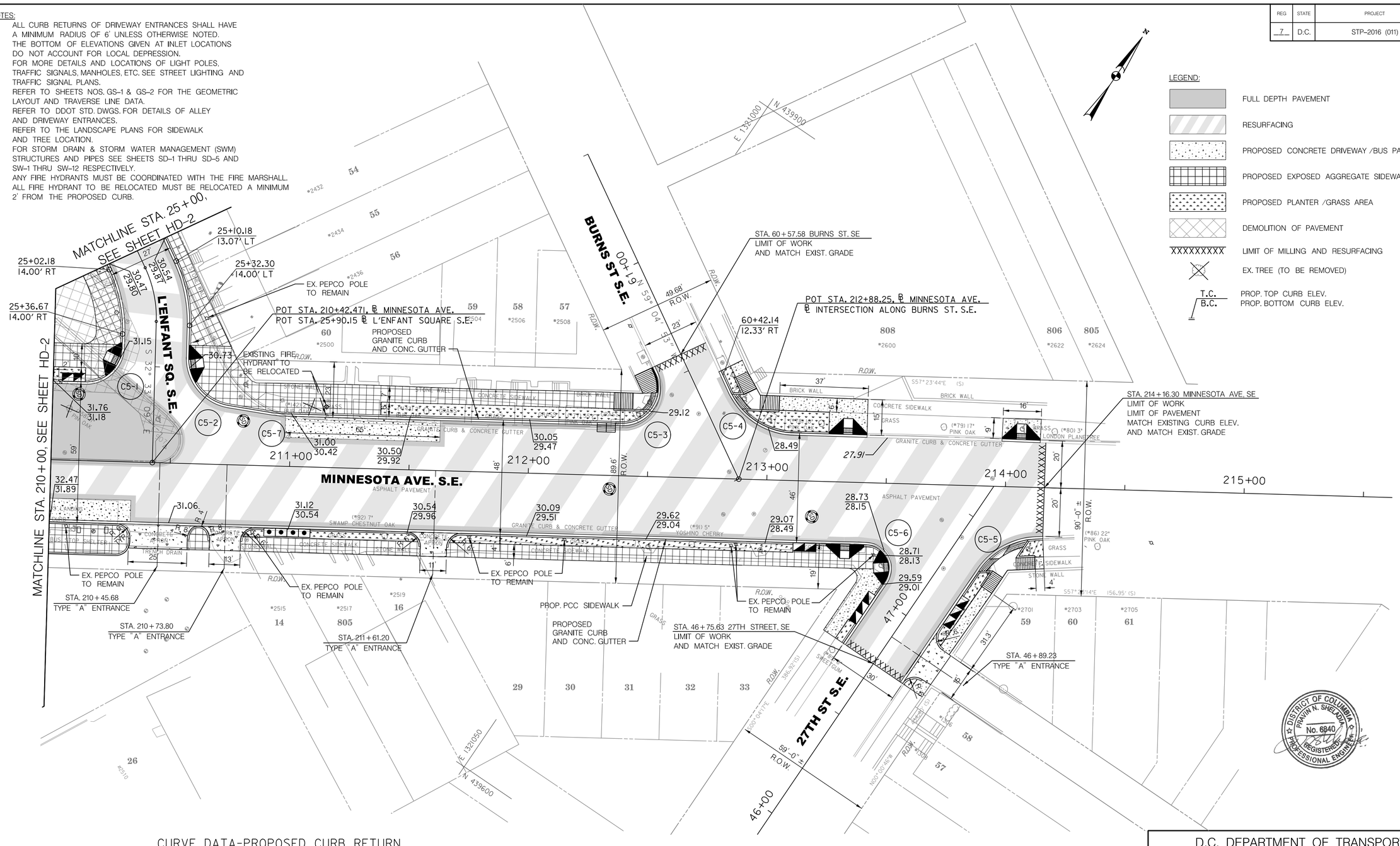
NOTES:

1. ALL CURB RETURNS OF DRIVEWAY ENTRANCES SHALL HAVE A MINIMUM RADIUS OF 6' UNLESS OTHERWISE NOTED.
2. THE BOTTOM OF ELEVATIONS GIVEN AT INLET LOCATIONS DO NOT ACCOUNT FOR LOCAL DEPRESSION.
3. FOR MORE DETAILS AND LOCATIONS OF LIGHT POLES, TRAFFIC SIGNALS, MANHOLES, ETC. SEE STREET LIGHTING AND TRAFFIC SIGNAL PLANS.
4. REFER TO SHEETS NOS. GS-1 & GS-2 FOR THE GEOMETRIC LAYOUT AND TRAVERSE LINE DATA.
5. REFER TO DDOT STD. DWGS. FOR DETAILS OF ALLEY AND DRIVEWAY ENTRANCES.
6. REFER TO THE LANDSCAPE PLANS FOR SIDEWALK AND TREE LOCATION.
7. FOR STORM DRAIN & STORM WATER MANAGEMENT (SWM) STRUCTURES AND PIPES SEE SHEETS SD-1 THRU SD-5 AND SW-1 THRU SW-12 RESPECTIVELY.
8. ANY FIRE HYDRANTS MUST BE COORDINATED WITH THE FIRE MARSHALL.
9. ALL FIRE HYDRANT TO BE RELOCATED MUST BE RELOCATED A MINIMUM 2' FROM THE PROPOSED CURB.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	35	197

LEGEND:

- FULL DEPTH PAVEMENT
- RESURFACING
- PROPOSED CONCRETE DRIVEWAY /BUS PAD /SIDEWALK
- PROPOSED EXPOSED AGGREGATE SIDEWALK
- PROPOSED PLANTER /GRASS AREA
- DEMOLITION OF PAVEMENT
- XXXXXXXXX LIMIT OF MILLING AND RESURFACING
- EX. TREE (TO BE REMOVED)
- T.C. / B.C. PROP. TOP CURB ELEV. / PROP. BOTTOM CURB ELEV.



CURVE DATA-PROPOSED CURB RETURN

CURVE#	RADIUS	DELTA	TANGENT	CHORD	PC STA.	OFFSET	PT STA.	OFFSET	ALONG BASELINE
C5-1	15.00	90°00'00"	15.00	21.21	210+13.47	32.64 (L)	210+34.93	54.34 (L)	MINNESOTA AVE.
C5-2	20.00	82°08'23"	17.43	26.28	210+73.73	24.47 (L)	210+55.47	43.41 (L)	MINNESOTA AVE.
C5-3	15.00	116°31'44"	24.25	25.51	212+38.48	21.64 (L)	212+51.90	43.34 (L)	MINNESOTA AVE.
C5-4	30.00	63°28'16"	18.55	31.56	213+10.60	19.64 (L)	212+83.76	36.24 (L)	MINNESOTA AVE.
C5-5	30.00	53°34'34"	15.15	27.04	213+90.01	35.77 (R)	214+13.27	21.99 (R)	MINNESOTA AVE.
C5-6	15.00	122°34'11"	27.38	26.31	213+33.09	26.36 (R)	213+45.73	49.44 (R)	MINNESOTA AVE.
C5-7	50.00	07°51'37"	3.44	6.85	210+97.65	21.64 (L)	210+90.81	22.11 (L)	MINNESOTA AVE.

20' 0 20' 40'

SCALE: 1" = 20'

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HD-5

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PAVEMENT PLAN – 5

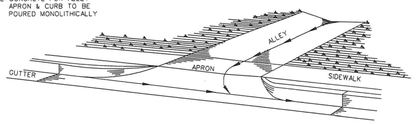
PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 35 OF 197

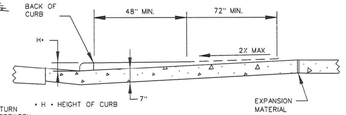
K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\pHD-P005_ED0B1A.dgn
Tuesday, September 25, 2018 AT 11:25 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	36	197

NOTE: CONCRETE FOR ALLEY APRON & CURB TO BE POURED MONOLITHICALLY

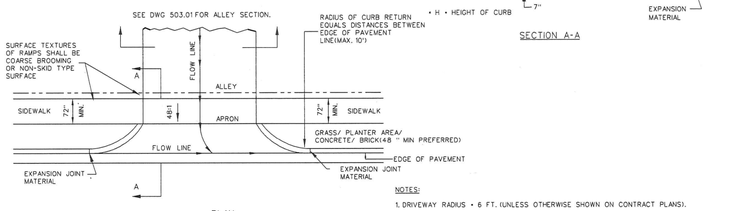


ALLEY ENTRANCE



* H = HEIGHT OF CURB

SECTION A-A



PLAN

NOTES:

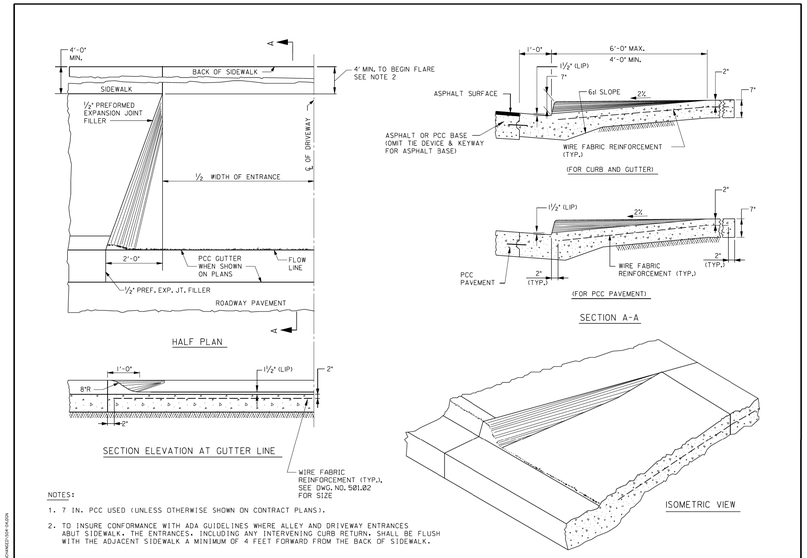
1. DRIVEWAY RADIUS = 6 FT. (UNLESS OTHERWISE SHOWN ON CONTRACT PLANS).
2. ALLEY RADIUS = 10 FT. (UNLESS OTHERWISE SHOWN ON CONTRACT PLANS).
3. 7 IN. PCC USED (UNLESS OTHERWISE SHOWN ON CONTRACT PLANS).
4. USE GRANITE CURB RETURNS WHERE EXISTING. SEE GRANITE CURB DETAILS WHEN USED.
5. NO TRANSVERSE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF THE TRAVEL.
6. MATERIAL THORUGHOUT THE SIDEWALK SHALL BE FIRM, STABLE AND SLIP RESISTANT.
7. SEE DWG 503.01 FOR ALLEY SECTION.
8. IF 6 FEET SIDEWALK WIDTH IS NOT ACHIEVABLE, THE MIN. WIDTH ALLOWED IS 4 FEET.

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

ALLEY-DRIVEWAY ENTRANCE WITH CURB RETURNS TYPE "A"

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 504.01



NOTES:

1. 7 IN. PCC USED (UNLESS OTHERWISE SHOWN ON CONTRACT PLANS).
2. TO INSURE CONFORMANCE WITH ADA GUIDELINES WHERE ALLEY AND DRIVEWAY ENTRANCES ABUT SIDEWALK, THE ENTRANCES, INCLUDING ANY INTERVENING CURB RETURN, SHALL BE FLUSH WITH THE ADJACENT SIDEWALK A MINIMUM OF 4 FEET FORWARD FROM THE BACK OF SIDEWALK.

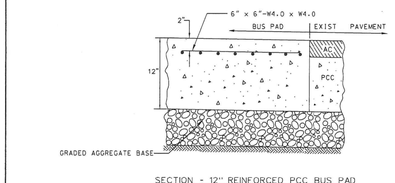
PLACEMENT OF RAMPS IN SIDEWALK TO BE COORDINATED WITH UNDERGROUND UTILITIES

DATE	APPR.	RECOMMENDED: DEPUTY CHIEF ENGINEER
REVISED		APPROVED: CHIEF TRANSPORTATION ENGINEER
ISSUED:	REFERENCE	

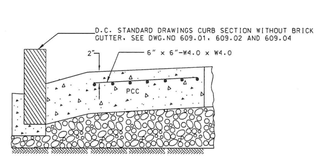
DRIVEWAY ENTRANCE TYPE "D"

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

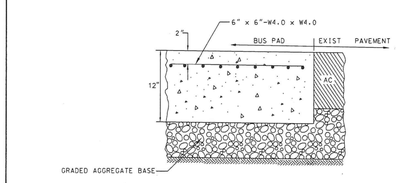
DWG. NO. 504.04



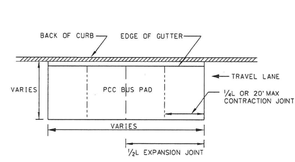
SECTION - 12" REINFORCED PCC BUS PAD WITH COMPOSITE PAVEMENT



SECTION - BUS PAD WITH PCC GUTTER AND OR PCC CURB



SECTION - PCC BUS PAD WITH FLEXIBLE PAVEMENT



PLAN

NOTE:

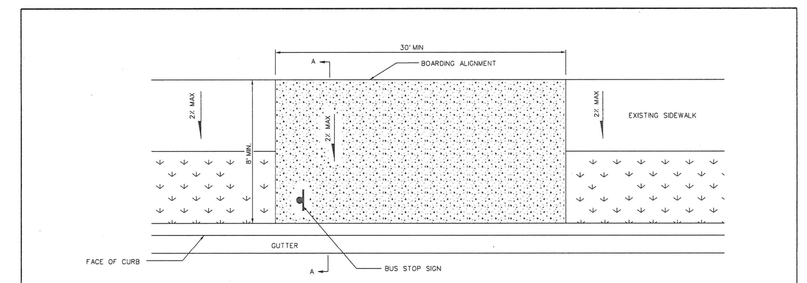
1. THE LENGTH OF BUS PAD IS 90' FOR ARTICULATED BUSES AND 65' FOR STANDARD BUSES
2. WIDTH DEPENDS ON ROADWAY CONFIGURATION
3. FOR JOINT DETAIL IN PCC PAVEMENT, SEE DDOT STANDARD DWG.501.03

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

PCC BUS PAD

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 506.01



SECTION A-A

NOTES:

1. ALL RAMPS SHALL CONFORM TO DDOT BEST PRACTICES AND THE LATEST AMERICANS WITH DISABILITIES ACT (ADA) CRITERIA.
2. THE SURFACE OF THE RAMP SHALL BE BROOM FINISHED (STEEL BRISTLE).

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

BUS STOP AND BOARDING ALIGNMENT

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 506.03

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

HD-6

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

PAVEMENT DETAILS – 1

DIVISION CHIEF
DATE
FILE
DWG. 36 OF 197

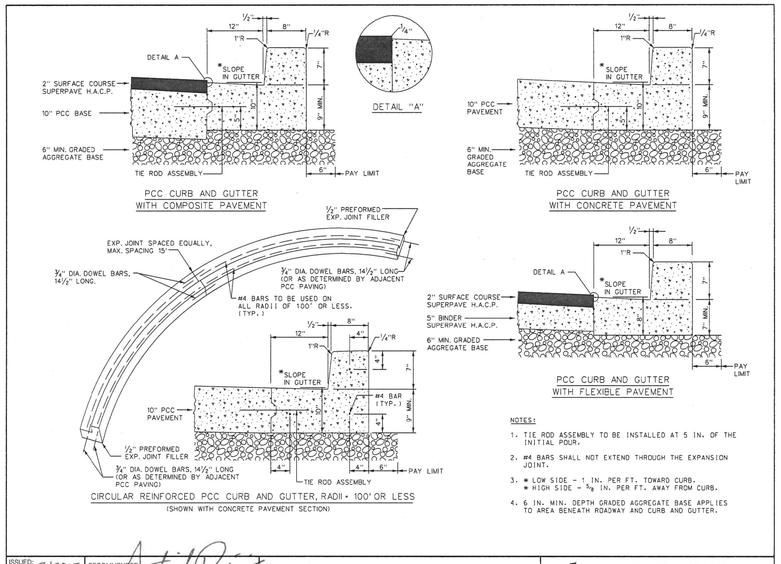
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\pHD-D006_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:25 AM

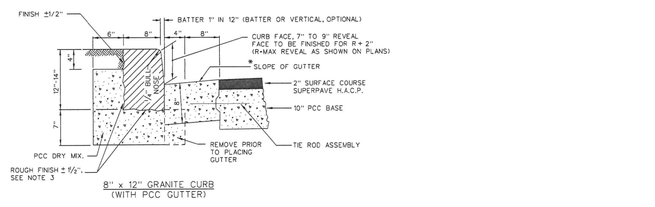
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	37	197



NOTES:

1. TIE ROD ASSEMBLY TO BE INSTALLED AT 5 IN. OF THE INITIAL POUR.
2. #4 BARS SHALL NOT EXTEND THROUGH THE EXPANSION JOINT.
3. * LOW SIDE – 1 IN. PER FT. TOWARD CURB.
   * HIGH SIDE – 5/8 IN. PER FT. AWAY FROM CURB.
4. 6 IN. MIN. DEPTH GRADED AGGREGATE BASE APPLIES TO AREA BENEATH ROADWAY AND CURB AND GUTTER.

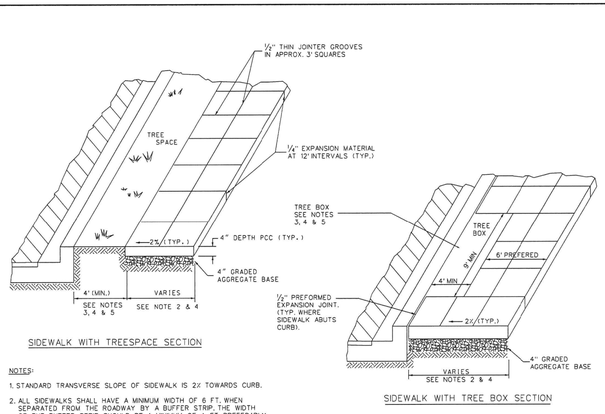
ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	TYPES OF PCC CURB & GUTTER	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid, CHIEF ENGINEER		DWG. NO. 606.01



NOTES:

1. CONDITIONS AT BACK OF CURB VARY AND ARE AS SHOWN ON THE CONTRACT PLANS.
2. PCC DRY MIX SHALL BE PER DDOT STANDARD SPECIFICATIONS, SECTION 801. IT SHALL MAINTAIN THE SAME TIME LIMITS AS PCC AND SHALL BE WATERED DOWN AFTER SETTING OF GRANITE CURB.
3. THE MINIMUM DEPTH TO CONCAVE SURFACE ON ROUGH FINISH SHALL BE 10 IN.
4. GRANITE CURBS ARE SHOWN WITH A COMPOSITE PAVEMENT SECTION.
5. * LOW SIDE – 1 IN. PER FT. TOWARD CURB
   * HIGH SIDE – 5/8 IN. PER FT. AWAY FROM CURB
6. A 6 IN. MIN. LAYER OF GRADED AGGREGATE BASE SHALL BE PLACED BENEATH THE ROADWAY AND CURB AND GUTTER AND IS NOT SHOWN FOR CLARITY.

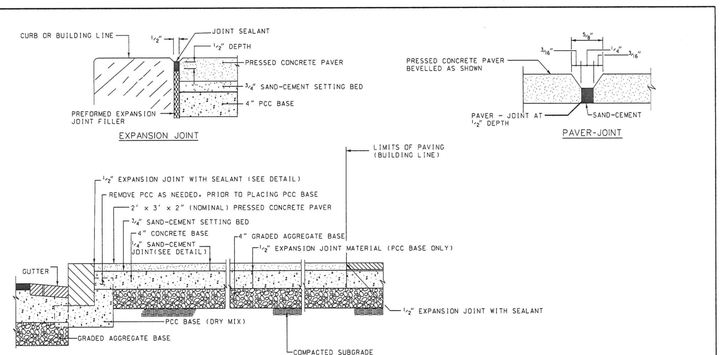
ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	TYPES OF GRANITE CURBS	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid, CHIEF ENGINEER		DWG. NO. 606.02



NOTES:

1. STANDARD TRANSVERSE SLOPE OF SIDEWALK IS 2% TOWARDS CURB.
2. ALL SIDEWALKS SHALL HAVE A MINIMUM WIDTH OF 6 FT. WHEN SEPARATED FROM THE ROADWAY BY A BUFFER STRIP. THE WIDTH OF THE BUFFER STRIP SHOULD BE A MINIMUM OF 4 FT. PREFERABLY 6 FT. FOR TREE SPACE. WHERE UTILITY POLES, SIGN SUPPORTS, FIRE HYDRANTS, TREE BOXES ETC. ARE PROVIDED IN THE SIDEWALK, THE MINIMUM USABLE WIDTH OF SIDEWALK SHALL BE 4 FT. TO ALLOW FOR WHEELCHAIR PASSAGE.
3. WHEN MINIMUM SIDEWALK WIDTH REQUIREMENTS ARE MET, A WIDER TREESPACE SHALL BE PROVIDED IF THE RIGHT-OF-WAY ALLOWS.
4. ANY EXCEPTIONS TO MINIMUM SIDEWALK OR TREESPACE REQUIREMENTS REQUIRE THE ENGINEER'S APPROVAL.
5. PROVIDE, AT A MINIMUM, THE REQUIRED TREE SOIL VOLUME PER DDOT GREEN INFRASTRUCTRE STANDARDS.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	TYPICAL SIDEWALK SECTIONS	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid, CHIEF ENGINEER		DWG. NO. 605.01



NOTES:

1. ALL PRESSED CONCRETE PAVING BLOCKS SHALL HAVE A NON-SLIP SURFACE.
2. USE TRI-SECTED PATTERN, STARTING PERPENDICULAR AT CURB AND WORKING TOWARD BUILDING LINE.
3. SETTING BED SHALL BE SAND-CEMENT MIX, 2:1 BY VOLUME.
4. JOINTS SHALL BE SWEPT WITH DRY SAND-CEMENT MIX, 2:1 BY VOLUME.
5. PAVING BLOCKS SHALL BE CUT TO FIT AROUND MANHOLES, VAULTS CATCH BASINS, CURBS, RAMPS, LIGHT POLES, KIOSKS AND FLAG POLES.
6. POURED CONCRETE SQUARE OR RECTANGULAR COLLARS AROUND SIDEWALK INTERRUPTIONS, USING AGGREGATE SIZE AND COLOR PER THE MANUFACTURER OF THE PRESSED CONCRETE PAVING BLOCKS, MAY BE USED SUBJECT TO APPROVAL BY THE ENGINEER.
7. USE PERPENDICULAR INTERSECTING PAVING PATTERN AT CORNERS.
8. PEPCO WILL FURNISH NEW STEEL VAULT COVERS IN LIEU OF THE EXISTING COVERS FILLED WITH CONCRETE. ONLY REMOVABLE TYPE VAULT COVERS WILL BE REPLACED. CONTRACTOR WILL INLAY PRESSED CONCRETE BLOCK PAVERS ON EPOXY MORTAR BED. JOINTS SHALL BE CONTINUOUS WITH SURROUNDING SIDEWALK PAVERS AS MUCH AS PRACTICABLE. LEVEL OF PAVERS SHALL BE FLUSH WITH ADJACENT GRADE.
9. CONTRACTOR SHALL NOTIFY PEPCO 3 WEEKS IN ADVANCE BEFORE PEPCO VAULT COVERS ARE READY TO BE REPLACED AND PAVED. ONLY PEPCO WILL REMOVE AND INSTALL THE STEEL VAULT COVERS.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	PRESSED CONCRETE BLOCK PAVER SIDEWALK	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid, CHIEF ENGINEER		DWG. NO. 605.02

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HD-7

SHELADIA ASSOCIATES, INC.
Engineers, Architects
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PAVEMENT DETAILS – 2

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 37 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\PHD-D007_EDOBIA.dgn
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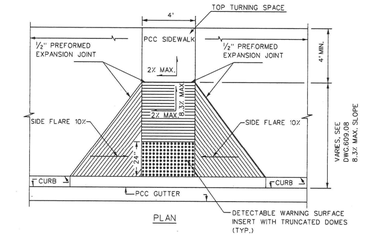
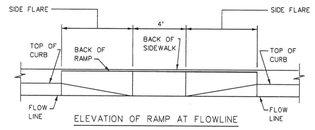
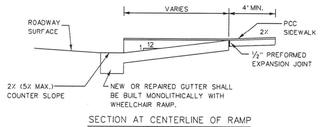


PLAN



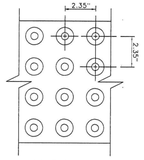
ELEVATION OF RAMP AT FLOWLINE



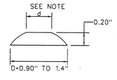
SECTION AT CENTERLINE OF RAMP

NOTES:

1. THE SURFACE OF THE PCC RAMP SHALL BE BROOM FINISHED (STEEL BRISTLE).
2. ALL RAMPS SHALL CONFORM TO DDOT BEST PRACTICES AND THE LATEST AMERICANS WITH DISABILITIES ACT (ADA) CRITERIA.



DOME SPACING

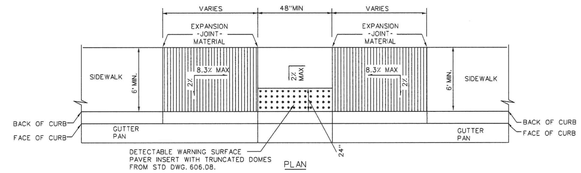


DOME SECTION

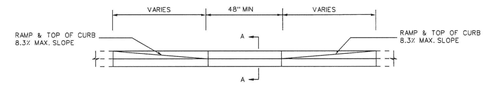
DETECTABLE WARNING SURFACE/TRUNCATED DOME NOTES:

1. INSTALL DETECTABLE WARNING SURFACE PAVERS WITH TRUNCATED DOMES FOR A DISTANCE OF 24" FROM THE BACK OF THE CURB AND FOR THE FULL WIDTH OF RAMP.
2. DETECTABLE WARNING SURFACE SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
3. DETECTABLE WARNING SURFACE/TRUNCATED DOME INSERT SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES.
4. d IS MORE THAN 50% OF D.
5. APPROVE COLOR FOR TRUNCATED DOME IS RED. PROJECT MANAGERS SHALL ACCEPT OTHER COLORS FOR TRUNCATED DOME UPON REQUEST AND COMPLIANCE EVALUATION.

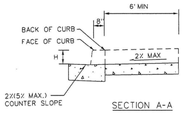
ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	CURB RAMP DETAILS	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid CHIEF ENGINEER		DWG. NO. 606.08



PLAN



ELEVATION

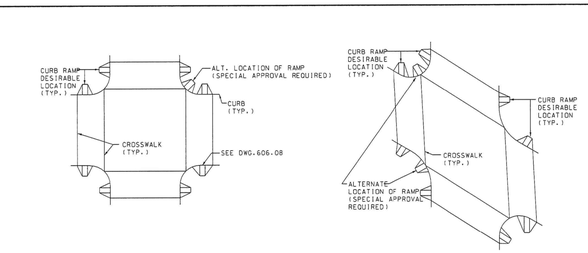


SECTION A-A

NOTES:

1. ALL RAMPS SHALL CONFORM TO DDOT BEST PRACTICES AND THE LASTEST AMERICANS WITH DISABILITIES ACT (ADA) CRITERIA.
2. THE SURFACE OF THE PCC RAMP SHALL BE BROOM FINISH (STEEL BRISTLE).
3. GUTTER PAN IN FRONT OF RAMP SHALL BE BUILT MONOLITHICALLY WITH RAMP AT 2% (5%) RUNNING SLOPE.
4. H = HEIGHT OF CURB IN INCHES.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	SINGLE PARALLEL CONTINUOUS RAMP	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid CHIEF ENGINEER		DWG. NO. 606.09



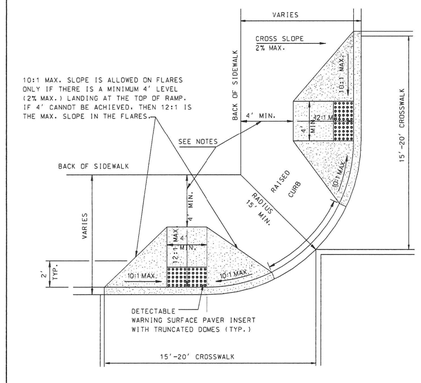
ORTHOGONAL LEVEL INTERSECTION

SKEWED LEVEL INTERSECTION

NOTES:

1. AT INTERSECTIONS, IT IS REQUIRED TO CONSTRUCT TWO CURB RAMPS FOR EACH DIRECTION OF PEDESTRIAN CROSSING. SPECIAL APPROVAL SHALL BE OBTAINED TO CONSTRUCT ONE RAMP AT THE CORNER AND MODIFY THE CROSSWALKS. SEE DRAWINGS 606.07 AND 606.08 FOR DETAILS.
2. RAMP LOCATION SHALL BE GOVERNED BY CROSSWALK WIDTH, 15'-20' AS DIRECTED. ALL RAMPS, INCLUDING SIDE FLARES, SHALL BE LOCATED WITHIN A CROSSWALK. ONE SIDE FLARE SHALL ALIGN WITH THE BACK EDGE LINE OF THE CROSSWALK.
3. FOR SKEWED INTERSECTIONS, ACUTE CORNERS SHALL DETERMINE THE LOCATION OF STREET POLES, RAMPS AND CROSSWALKS.
4. ALL RAMPS SHALL CONFORM TO DDOT BEST PRACTICES AND THE LATEST AMERICANS WITH DISABILITIES ACT (ADA) CRITERIA.
5. INSTALL DETECTABLE WARNING SURFACE WITH TRUNCATED DOMES FOR A DISTANCE OF 24" FROM THE BACK OF THE CURB AND FOR THE FULL WIDTH OF RAMP.
6. THE SURFACE OF THE PCC RAMP SHALL BE BROOM FINISHED (STEEL BRISTLE).
7. RAMP SHALL BE CONSTRUCTED WITH PCC SIDEWALK CONCRETE (NO DARKENING AGENTS).
8. ANY STREET POLE FOUNDATION SHALL BE CONSTRUCTED PER DRAWING.
9. DESIGN STORM DRAIN SYSTEMS TO SHED WATER AWAY FROM RAMPS, SO AS NOT TO ENTER THE RAMPS.
10. FINAL LOCATION OF RAMP WILL BE DECIDED BY THE ENGINEER ON SITE.
11. APPROVED WAIVER IS REQUIRED FOR DESIGN EXCEPTIONS.
12. GUTTER PAN IN FRONT OF RAMP SHALL BE BUILT MONOLITHICALLY WITH RAMP AT 2% (5% MAX) RUNNING SLOPE.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	CURB RAMPS LOCATIONS	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid CHIEF ENGINEER		DWG. NO. 606.05



NOTES:

1. AT INTERSECTIONS, IT IS REQUIRED TO CONSTRUCT CURB RAMPS. SPECIAL APPROVAL SHALL BE OBTAINED TO CONSTRUCT ONE RAMP AT THE CORNER AND MODIFY THE CROSSWALKS. SEE DRAWINGS 606.07 AND 606.08 FOR DETAILS.
2. RAMP LOCATION SHALL BE GOVERNED BY CROSSWALK WIDTH, 15'-20' AS DIRECTED. ALL RAMPS, INCLUDING SIDE FLARES, SHALL BE LOCATED WITHIN A CROSSWALK. ONE SIDE FLARE SHALL ALIGN WITH THE BACK EDGE LINE OF THE CROSSWALK.
3. FOR SKEWED INTERSECTIONS, ACUTE CORNERS SHALL DETERMINE THE LOCATION OF STREET POLES, RAMPS AND CROSSWALKS.
4. ALL RAMPS SHALL CONFORM TO DDOT BEST PRACTICES AND THE LATEST AMERICANS WITH DISABILITIES ACT (ADA) CRITERIA.
5. DIMENSIONS SHOWN ARE FOR NEW CONSTRUCTION. FOR ALTERATIONS WHEN THESE DIMENSIONS ARE TECHNICALLY IMPRACTICABLE, AN APPROVED WAIVER IS REQUIRED.
6. INSTALL DETECTABLE WARNING SURFACE PAVERS WITH TRUNCATED DOMES FOR A DISTANCE OF 24" FROM THE BACK OF THE CURB AS SHOWN.
7. THE SURFACE OF THE PCC RAMP SHALL BE BROOM FINISHED (STEEL BRISTLE).
8. RAMP SHALL BE CONSTRUCTED WITH PCC SIDEWALK CONCRETE (NO DARKENING AGENTS).
9. ANY STREET POLE FOUNDATION SHALL BE CONSTRUCTED PER DRAWING.
10. DESIGN STORM DRAIN SYSTEMS TO SHED WATER AWAY FROM RAMPS, SO AS NOT TO ENTER THE RAMPS.
11. FINAL LOCATION OF RAMP WILL BE DECIDED BY THE ENGINEER ON SITE.
12. APPROVED WAIVER IS REQUIRED FOR DESIGN EXCEPTIONS.
13. GUTTER PAN IN FRONT OF RAMP SHALL BE BUILT MONOLITHICALLY WITH RAMP AT 2% (5% MAX) RUNNING SLOPE.
14. IF TOP LANDING FOR CURB RAMP HAS A VERTICAL OBSTRUCTION, A TURNING SPACE OF 5'X5' WILL BE REQUIRED AT TOP LANDING.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	CURB RAMPS LOCATION (TYP.)	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid CHIEF ENGINEER		DWG. NO. 606.06

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HD-8

SHELADIA ASSOCIATES, INC.
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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

PAVEMENT DETAILS – 3

DIVISION CHIEF
DATE
FILE
DWG. 38 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\pHD-D008.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:26 AM

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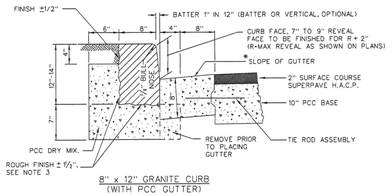
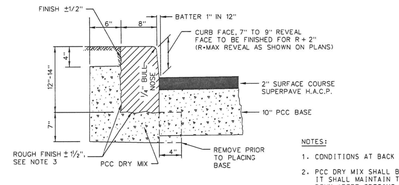


8" x 12" GRANITE CURB
(WITH PCC GUTTER)

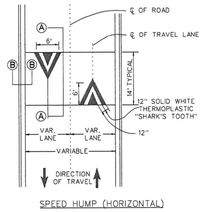


8" x 12" GRANITE CURB
(WITHOUT PCC GUTTER)

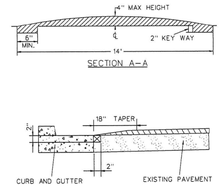
NOTES:

1. CONDITIONS AT BACK OF CURB VARY AND ARE AS SHOWN ON THE CONTRACT PLANS.
2. PCC DRY MIX SHALL BE PER DDOT STANDARD SPECIFICATIONS, SECTION 801. IT SHALL MAINTAIN THE SAME TIME LIMITS AS PCC AND SHALL BE WATERED DOWN AFTER SETTING OF GRANITE CURB.
3. THE MINIMUM DEPTH TO CONCAVE SURFACE ON ROUGH FINISH SHALL BE 10 IN.
4. GRANITE CURBS ARE SHOWN WITH A COMPOSITE PAVEMENT SECTION.
5. * LOW SIDE - 1 IN. PER FT. TOWARD CURB
   * HIGH SIDE - 5/8 IN. PER FT. AWAY FROM CURB
6. A 6 IN. MIN. LAYER OF GRADED AGGREGATE BASE SHALL BE PLACED BENEATH THE ROADWAY AND CURB AND GUTTER AND IS NOT SHOWN FOR CLARITY.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	TYPES OF GRANITE CURBS	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Mohammed Khalid CHIEF ENGINEER		DWG. NO. 606.02



SPEED HUMP (HORIZONTAL)



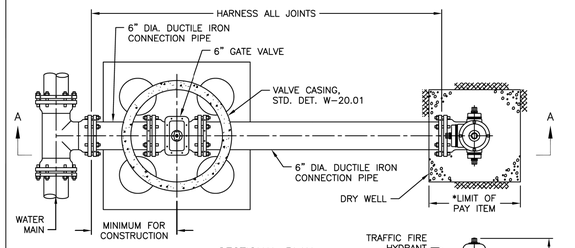
NOTE:

1. SPEED HUMPS SHOULD NOT BE CONSIDERED ON: EMERGENCY AND EVACUATION ROUTES; ROADWAYS WITH GRADES OF 8% OR MORE; ARTERIALS OR COLLECTOR STREETS AND THROUGH BUS OR TRUCK ROUTES; AT DRIVEWAYS, ENTRANCES AND/OR ALLEYS; AVOID UTILITIES; DRAINAGE STRUCTURES.
2. SPEED HUMPS SHOULD NOT BE PLACED WITHIN 150 FEET OF AN UNSIGNALIZED INTERSECTION OR 250 FEET OF A SIGNALIZED INTERSECTION.
3. SPEED HUMPS ARE TYPICALLY PLACED 250-550 FEET APART.
4. REFER TO "DDOT TRAFFIC CALMING ASSESSMENT APPLICATION(APRIL 2012)" FOR ADDITIONAL INFORMATION.
5. TYPICALLY A HUMP IS 14' BUT CAN BE BETWEEN 10' AND 14' IN LENGTH AND HEIGHT CAN BE BETWEEN 3" AND 4" WITH TYPICAL HEIGHT BEING 4".

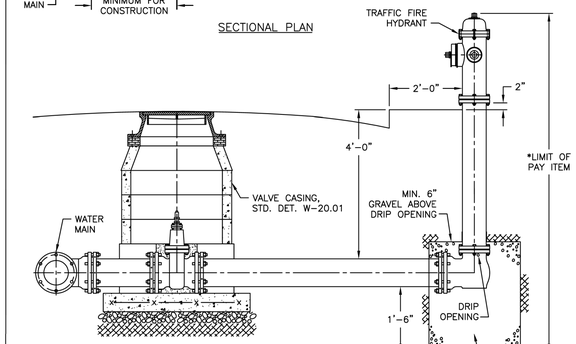
ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	TRAFFIC CALMING SPEED HUMP STANDARD DRAWINGS	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Mohammed Khalid CHIEF ENGINEER		DWG. NO. 605.15

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

W-50.01
1 OF 1



SECTIONAL PLAN

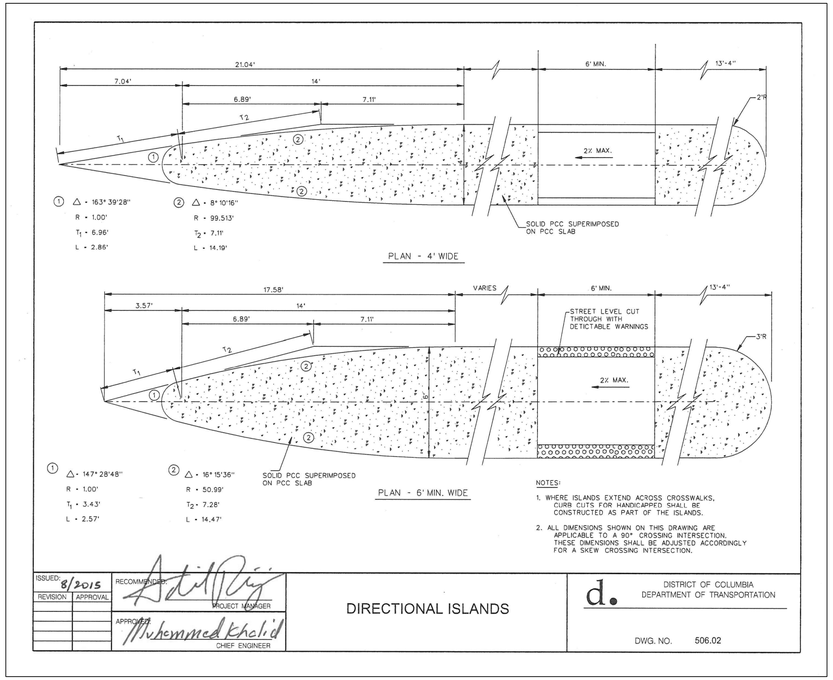


NOTES:

* LIMIT OF PAY ITEM PER SPECIFICATION SECTION 02642

SECTION A-A

APPROVED DATE: June 20, 2003	REVISION NO.: 0	STANDARD DETAIL
DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	DATE: 6/20/03 PREPARED BY: OBG/BKJV CHECKED BY: W.DARROW	TRAFFIC FIRE HYDRANT INSTALLATION



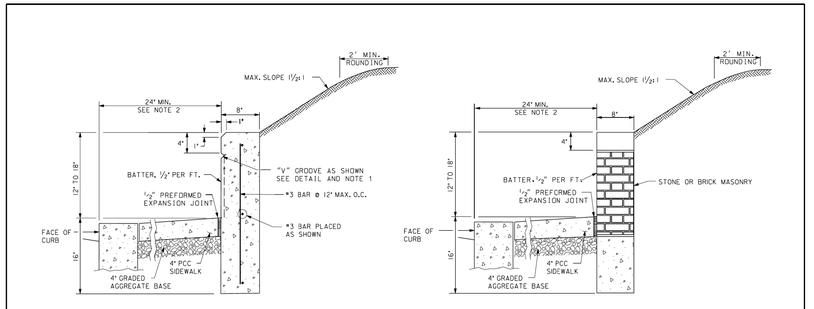
PLAN - 4' WIDE

PLAN - 6' MIN. WIDE

NOTES:

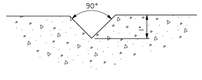
1. WHERE ISLANDS EXTEND ACROSS CROSSWALKS, CURB CUTS FOR HANDICAPPED SHALL BE CONSTRUCTED AS PART OF THE ISLANDS.
2. ALL DIMENSIONS SHOWN ON THIS DRAWING ARE APPLICABLE TO A 90° CROSSING INTERSECTION. THESE DIMENSIONS SHALL BE ADJUSTED ACCORDINGLY FOR A SKEW CROSSING INTERSECTION.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	DIRECTIONAL ISLANDS	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Mohammed Khalid CHIEF ENGINEER		DWG. NO. 506.02



SPECIAL CONCRETE COPING

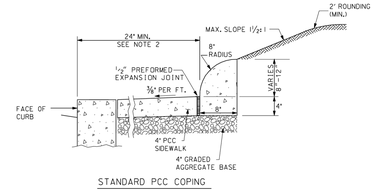
SPECIAL MASONRY COPING



VERTICAL AND HORIZONTAL "V" GROOVE DETAIL

NOTES:

1. VERTICAL "V" GROOVES SHALL BE LOCATED TO MATCH SIDEWALK JOINTS. TYPICALLY EVERY 9 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

			RECOMMENDED: DEPUTY CHIEF ENGINEER	COPINGS
DATE	APPR.		APPROVED: CHIEF TRANSPORTATION ENGINEER	
REVISED				
ISSUED:		REFERENCE		

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 602.06

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HD-9

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PAVEMENT DETAILS – 4

PROJECT ENG.	K.M.
DESIGNED BY	M.T.
CHECKED BY	K.M.
DRAWN BY	R.R.
PROJECT MGR.	M.A.

DIVISION CHIEF
DATE
FILE
DWG. 39 OF 197

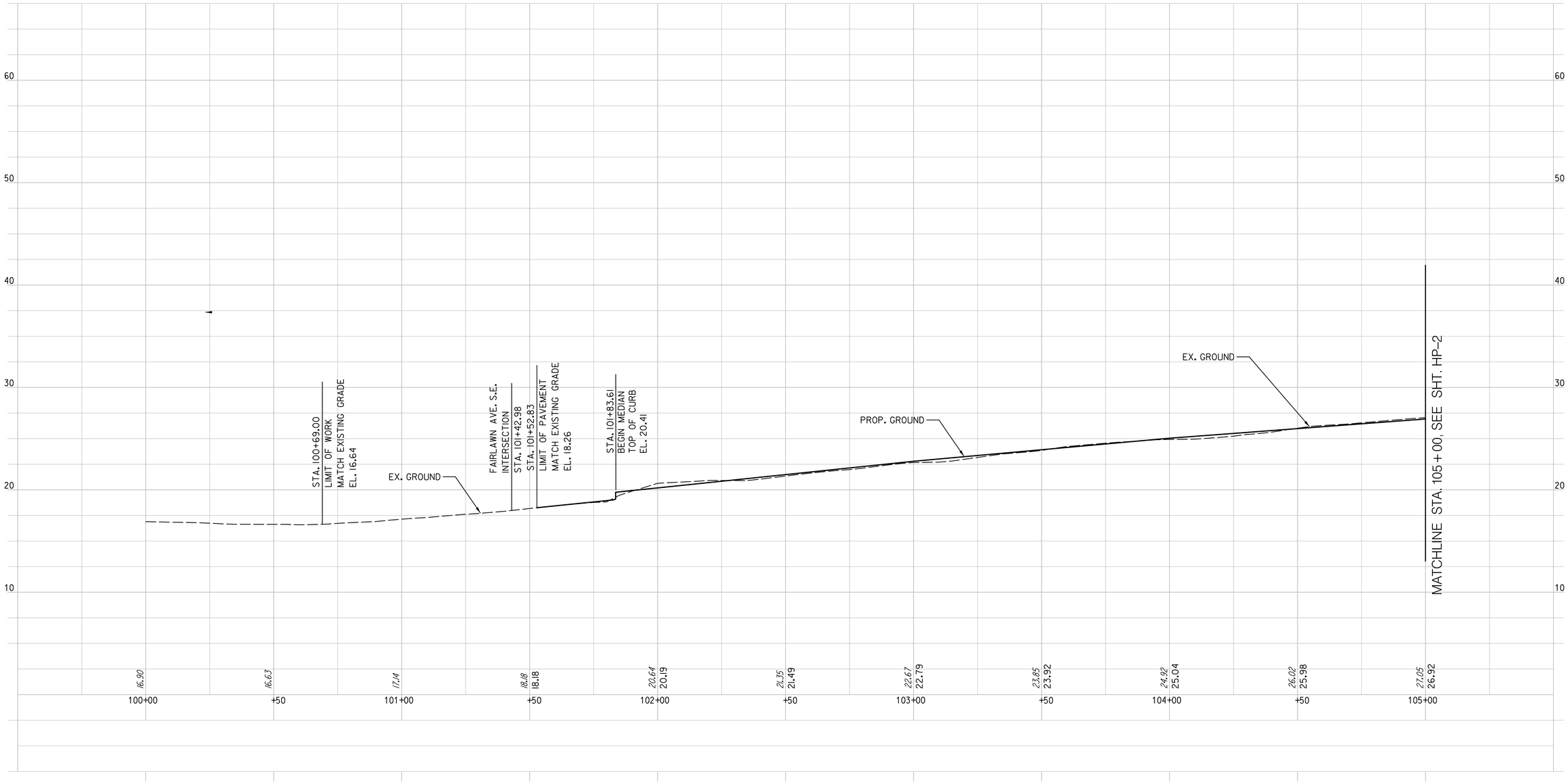
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Roadway\PHD-D009.EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:26 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	40	197



HP-1

NOTE:

FOR UTILITY LOCATIONS SEE DRAINAGE PROFILES ON SHEETS DP-1 TO DP-5

HORIZ 0 20 40 SCALE IN FEET

VERT 0 4 8 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA, S.
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. S.S.

PAVEMENT PROFILE
PENNSYLVANIA AVE. S.E.
STA. 100+00 TO STA. 105+00

DIVISION CHIEF
DATE
FILE
DWG. 40 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Profiles\pHP-V001_ED08IA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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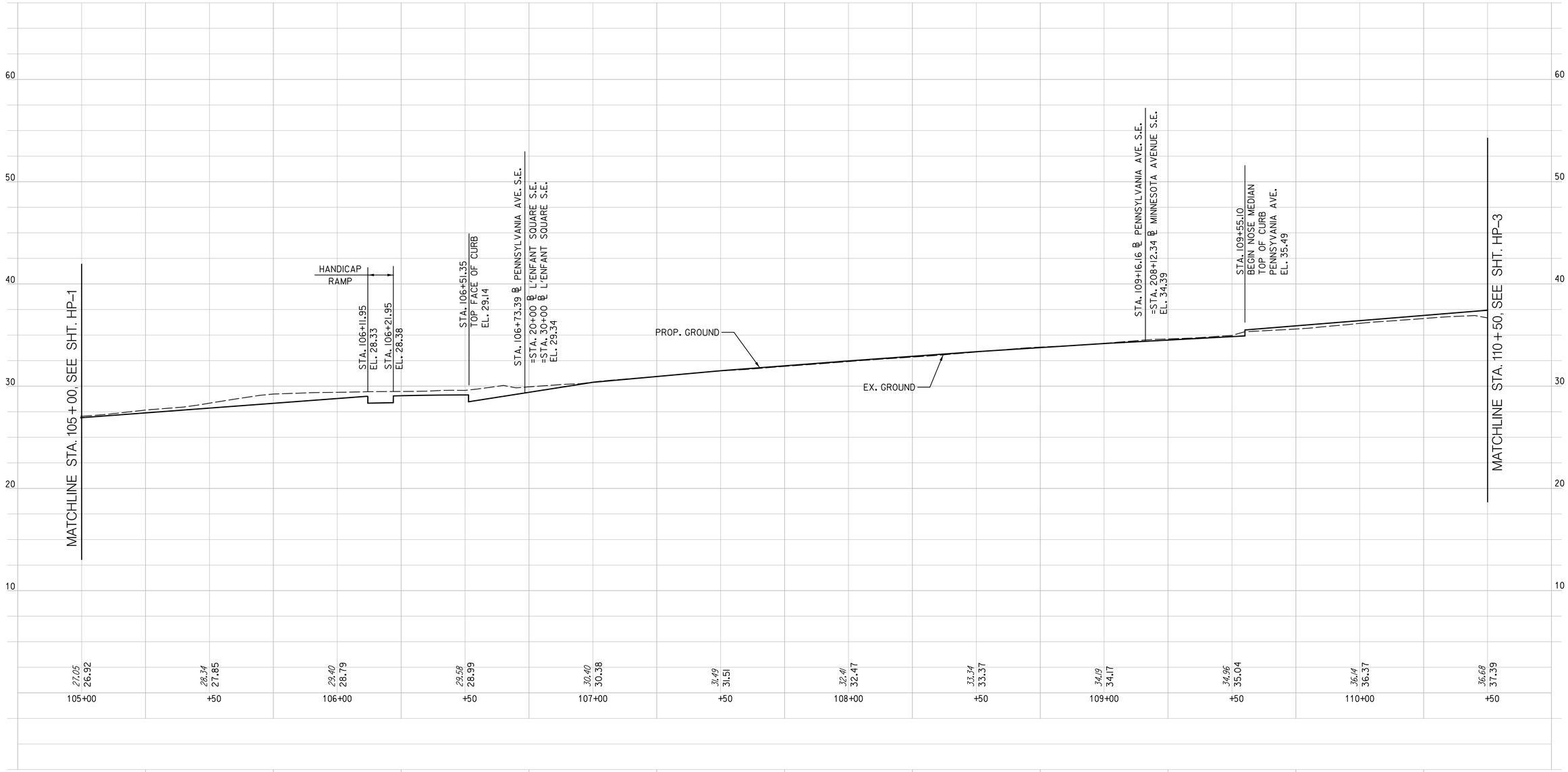

HP-2

NOTE:

FOR UTILITY LOCATIONS SEE DRAINAGE PROFILES ON SHEETS DP-1 TO DP-5

HORIZ 0 20 40 SCALE IN FEET

VERT 0 4 8 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. S.S.

PAVEMENT PROFILE
PENNSYLVANIA AVE. S.E.
STA. 105+00 TO STA. 110+50

DIVISION CHIEF
DATE
FILE
DWG. 41 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Profiles\pHP-V002_ED08IA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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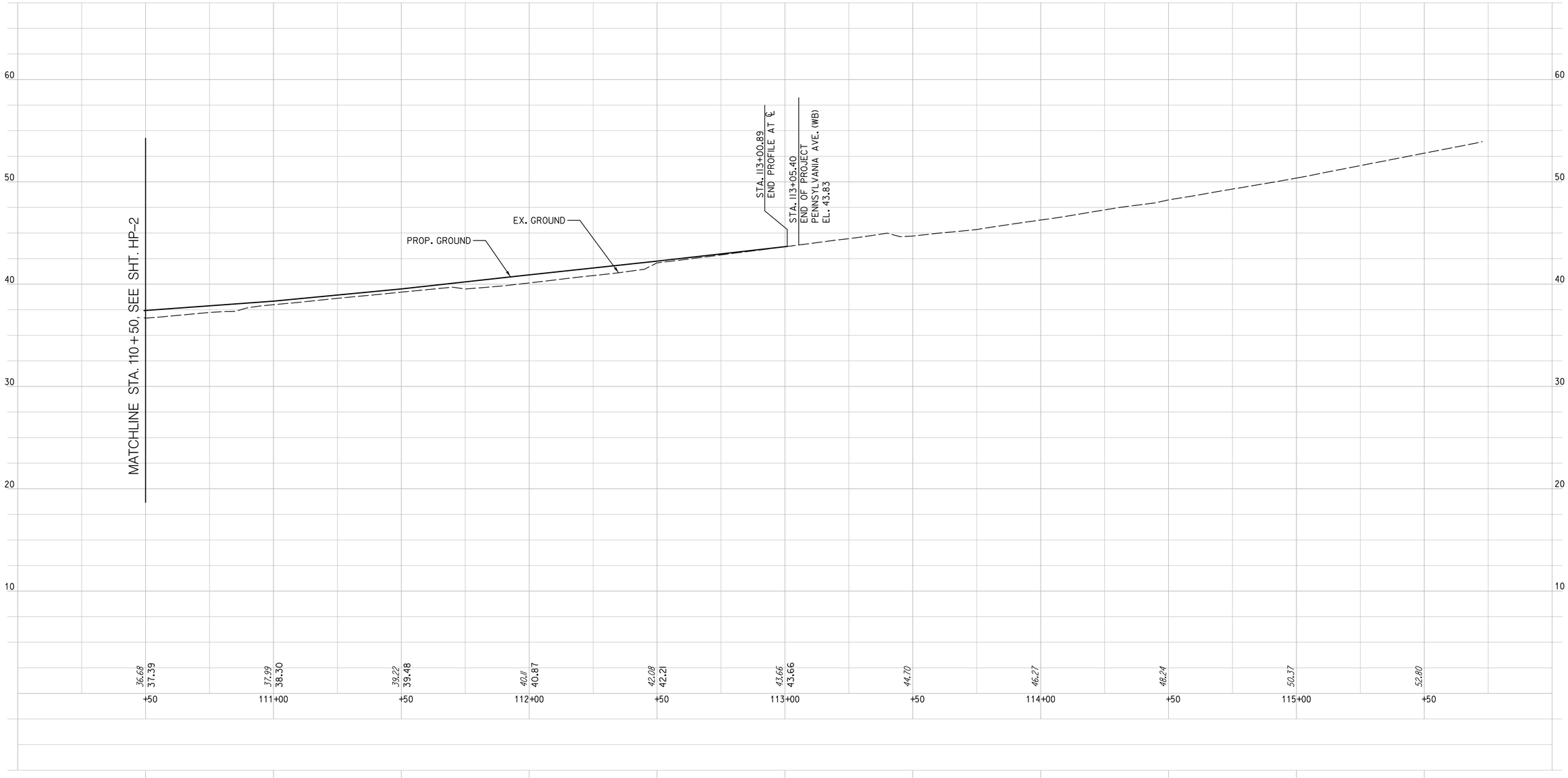

HP-3

NOTE:

FOR UTILITY LOCATIONS SEE DRAINAGE PROFILES ON SHEETS DP-1 TO DP-5

HORIZ 0 20 40 SCALE IN FEET

VERT 0 4 8 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA ☆ PRAVIN N. SHELADIA ☆ No. 6840 REGISTERED PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. S. S.

PAVEMENT PROFILE
PENNSYLVANIA AVE. S.E.
STA. 110+50 TO STA. 115+50

DIVISION CHIEF
DATE
FILE
DWG. 42 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\OGN\Sheets\Profiles\pHP-V003.EDGBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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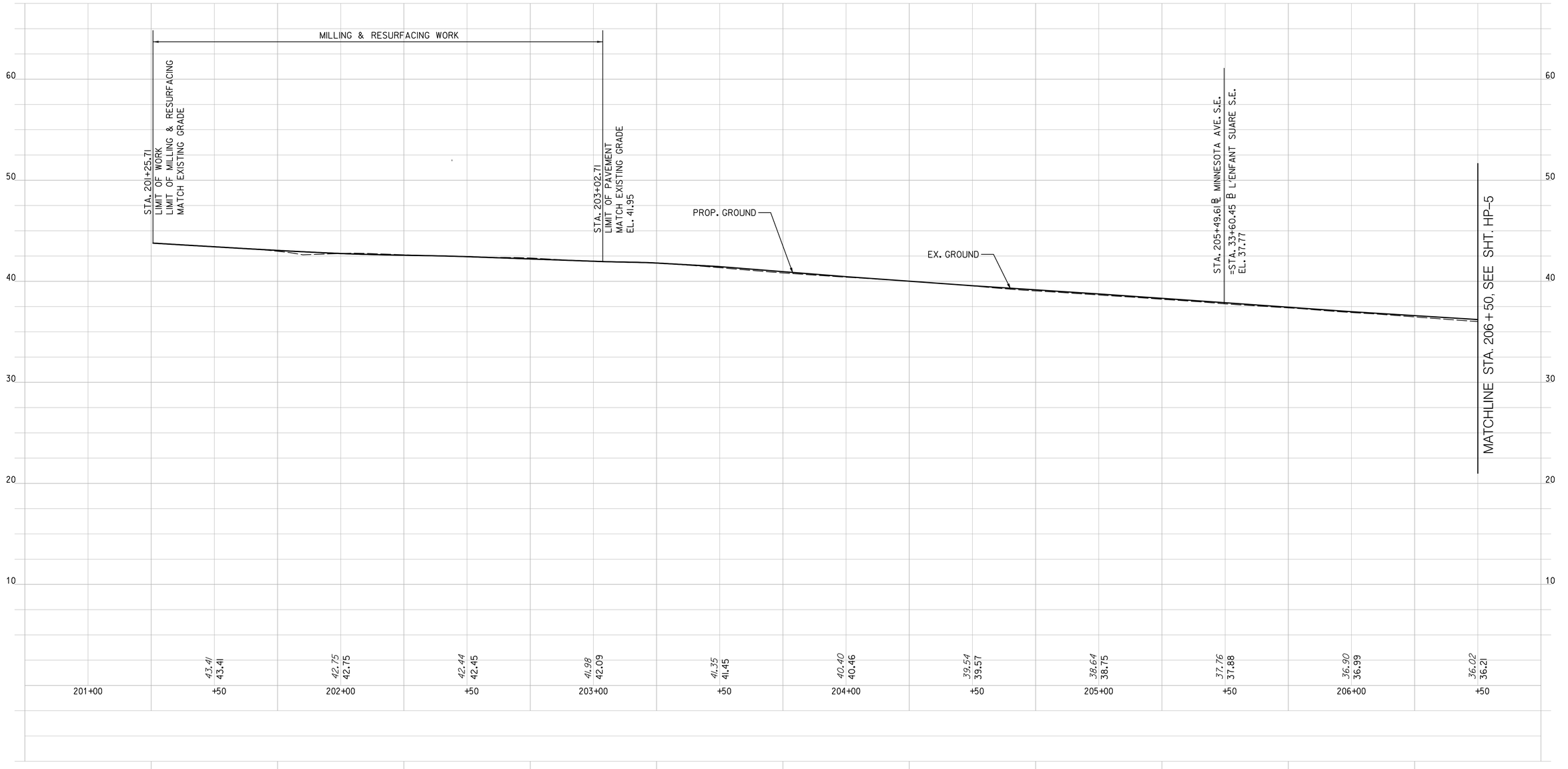


HP-4

NOTE:

FOR UTILITY LOCATIONS SEE DRAINAGE PROFILES ON SHEETS DP-1 TO DP-5

HORIZ 0 20 40 SCALE IN FEET

VERT 0 4 8 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA ☆ IRWIN N. SHELADIA ☆ No. 6840 REGISTERED PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

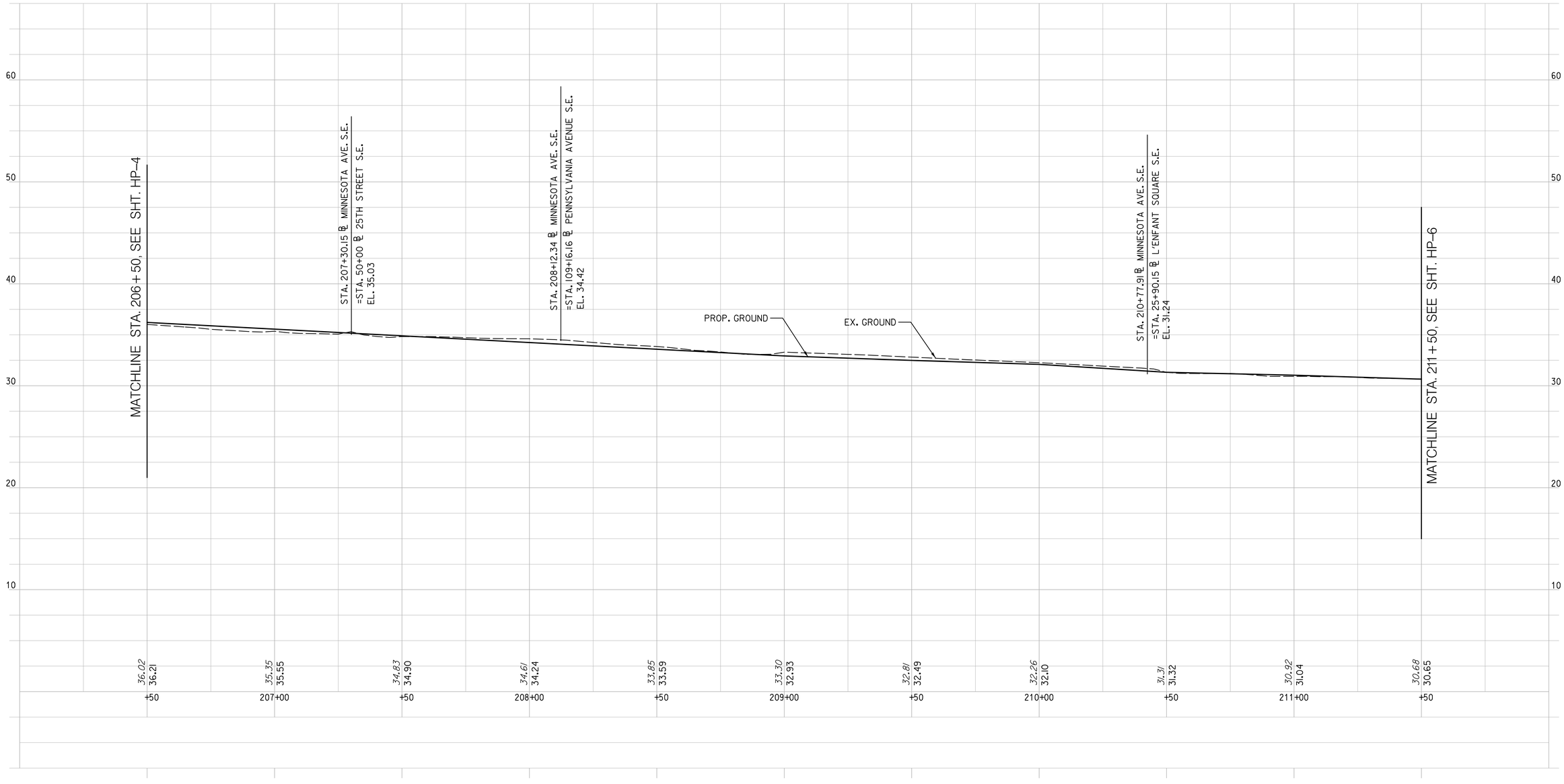
PAVEMENT PROFILE
MINNESOTA AVE. S.E.
STA. 201+00 TO STA. 206+50

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF
DATE
FILE
DWG. 43 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Profiles\pHP-V004_EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	44	197



HP-5

NOTE:

FOR UTILITY LOCATIONS SEE DRAINAGE PROFILES ON SHEETS DP-1 TO DP-5

HORIZ 0 20 40 SCALE IN FEET

VERT 0 4 8 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA ☆ IRWIN N. SHELADIA ☆ No. 6840 REGISTERED PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF

DATE

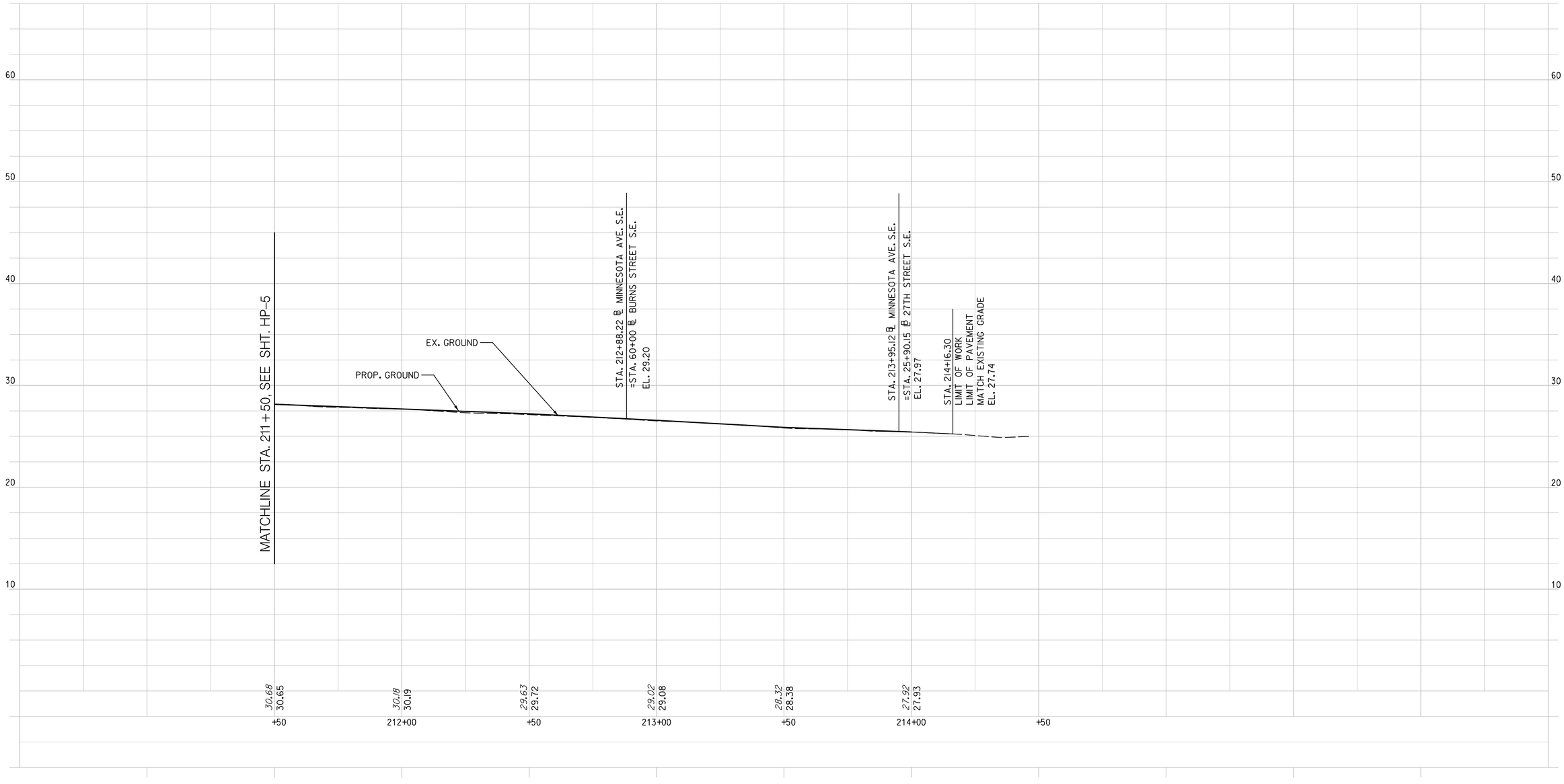
FILE

DWG. 44 OF 197

PAVEMENT PROFILE
MINNESOTA AVE. S.E.
STA. 206+50 TO STA. 211+50

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Profiles\pHP-V005_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	45	197



HP-6

NOTE:

FOR UTILITY LOCATIONS SEE DRAINAGE PROFILES ON SHEETS DP-1 TO DP-5

HORIZ 0 20 40 SCALE IN FEET

VERT 0 4 8 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF

DATE

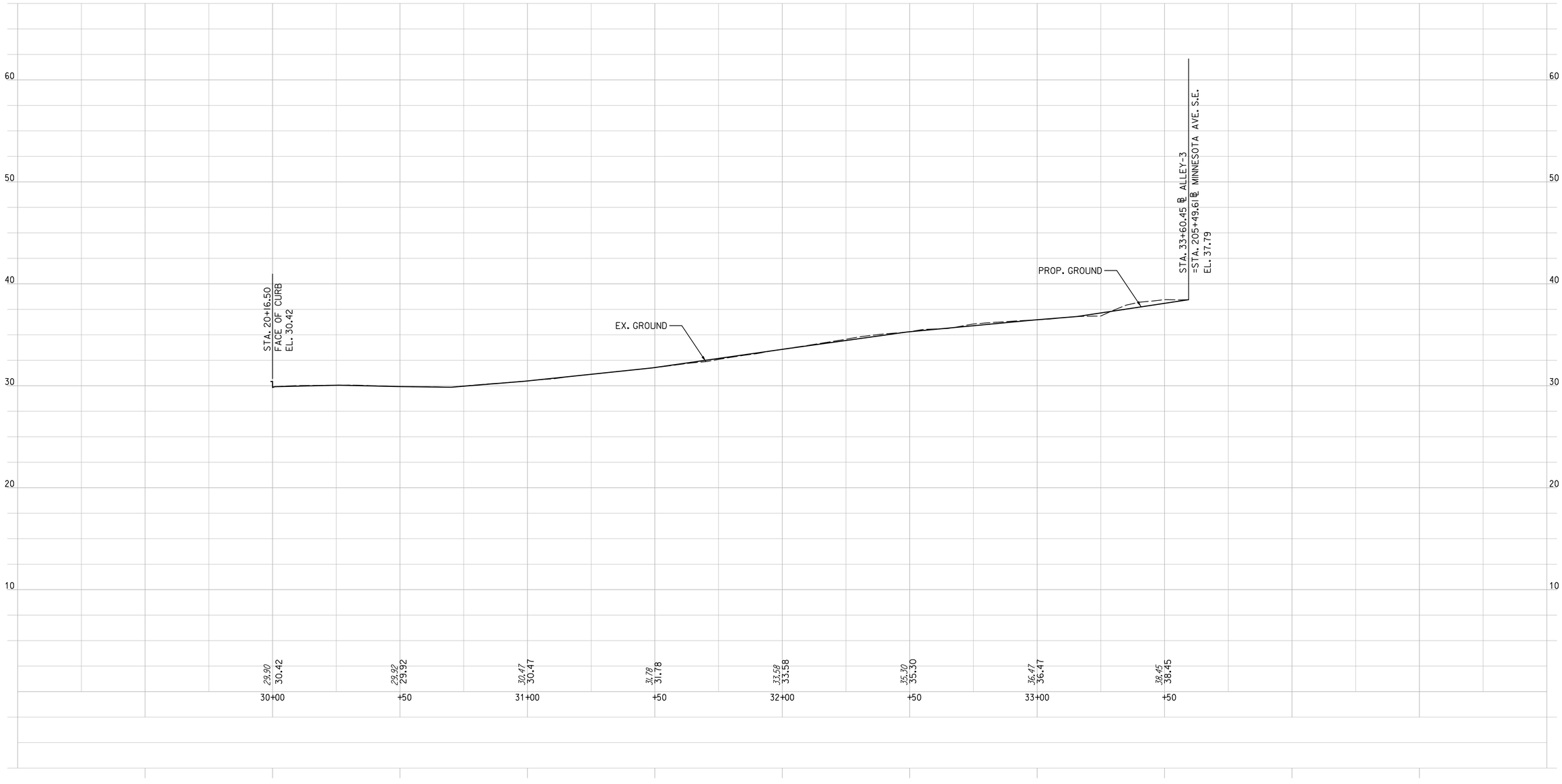
FILE

DWG. 45 OF 197

PAVEMENT PROFILE
MINNESOTA AVE. S.E.
STA. 211+50 TO STA. 214+16.30

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Profiles\pHP-V006.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	46	197



HP-7

NOTE:

FOR UTILITY LOCATIONS SEE DRAINAGE PROFILES ON SHEETS DP-1 TO DP-5

HORIZ 0 20 40 SCALE IN FEET

VERT 0 4 8 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA ☆ IRWIN N. SHELADIA ☆ No. 6840 REGISTERED PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PAVEMENT PROFILE
L'ENFANT SQUARE S.E.
STA. 30+00 TO STA. 33+60.45

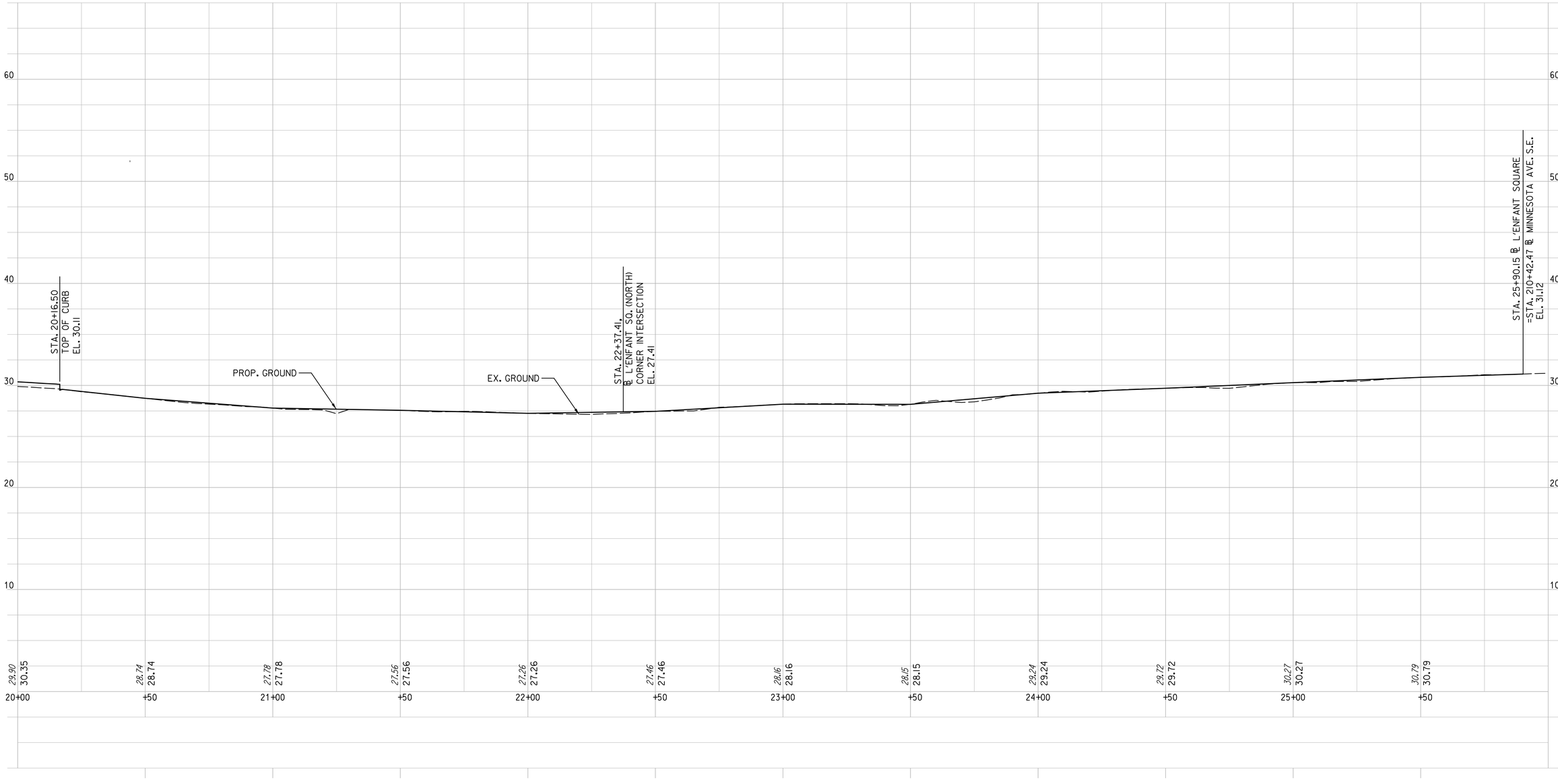
PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF

DATE
FILE
DWG. 46 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Profiles\pHP-V007_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	47	197



HP-8

NOTE:

FOR UTILITY LOCATIONS SEE DRAINAGE PROFILES ON SHEETS DP-1 TO DP-5

HORIZ 0 20 40 SCALE IN FEET

VERT 0 4 8 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA ☆ IRWIN N. SHELADIA ☆ No. 6840 REGISTERED PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PAVEMENT PROFILE
L'ENFANT SQUARE S.E.
STA. 20+00 TO STA. 25+90.15

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF
DATE
FILE
DWG. 47 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Profiles\pHP-V008.EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	48	197

STA. 102+03.58
OFFSET 112.56' LT.
LIMIT OF WORK
LIMIT OF PAVEMENT
MATCH EXISTING GRADE

STA. 102+66.19
OFFSET 106.91' LT.
LIMIT OF WORK
MATCH EXISTING GRADE

FAIRLAWN AVE. S.

ALLEY

RAMP

RAMP

PENNSYLVANIA AVE. S.E.

PROUT ST. S.E.

ALLEY

REMOVE EX. MANHOLE AND ABANDON CONNECTING PIPES.

REPLACE EX. CB WITH NEW CB

REPLACE EX. CATCH BASIN WITH STANDARD DOUBLE CATCH BASIN

ABANDON GRATE INLET & CONN. PIPE

REMOVE EX. MANHOLE, CATCH BASIN AND ABANDON CONNECTING PIPE.

STA. 101+52.83
LIMIT OF WORK
LIMIT OF PAVEMENT
MATCH EXISTING GRADE

MATCHLINE STA. 106+00, SEE SHEET SD-2

REFERENCE NOTES:

1. FOR GENERAL UTILITY NOTES, SEE SHEET SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. FOR STORM DRAIN PROFILES, SEE SHEETS DP-1 THRU DP-5.
4. FOR SWM-BMP DESIGN SUMMARY, PLAN, SECTIONS AND DETAILS, SEE SHEETS SW-3 THRU SW-18.

LEGEND:

BMP – BIORETENTION

BMP – PERMEABLE PAVER

LOD — LIMIT OF DISTURBANCE

SCALE: 1" = 20'

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

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15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

SD-1

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

STORM DRAINAGE PLAN – 1

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF

DATE
FILE
DWG. 48 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\SD-P001_EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	49	197

REMOVE EX. CATCH BASIN & CONN. PIPE

ALLEY -1

REMOVE EX. CATCH BASINS ABANDON & CONN. PIPES

L'ENFANT SQ. S.E.

MATCHLINE STA. 25+00 SEE SHEET SD-5

BMP-L5

BMP-NP1

BMP-L4

ADJUST THE MANHOLE BY FOLLOWING THE STANDARD S-21.14 AS NEEDED

L'ENFANT SQUARE S.E.

MINNESOTA AVE. S.E.

BMP-NP2

REMOVE EX. CATCH BASINS & ABANDON CONN. PIPES

BMP-M6A

BMP-M6B

MATCHLINE STA. 210+00, SEE SHEET SD-5

MINNESOTA AVE S.E.

REPLACE EX. CATCH BASIN WITH STANDARD WATER QUALITY BASIN

PENNSYLVANIA AVE. S.E.

REPLACE EX. CATCH BASIN WITH STANDARD TRIPLE BASIN

MATCHLINE STA. 106+00, SEE SHEET SD-1

MATCHLINE STA. 111+00, SEE SHEET SD-3

CONNECT PIPE TO EX. MANHOLE

REPLACE EX. CATCH BASIN & CONN. PIPE

REPLACE EX. CATCH BASIN WITH STD. DOUBLE CATCH BASIN

REPLACE EX. CATCH BASIN WITH STD. SINGLE CATCH BASIN

ABANDON EX. CATCH BASIN & CONN. PIPE

BMP-SP1

BMP-SP2

ABANDON EX. CATCH BASIN AND CONN. PIPE.

BULKHEAD

BMP-P13

ALLEY -3

ABANDON EX. CATCH BASIN AND CONN. PIPES.

MATCHLINE SEE SHEET SD-4

MATCHLINE STA. 31+00, SEE SHEET SD-4

ABANDON EX. CATCH BASIN & CONN. PIPE

SCALE: 1" = 20'

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

REFERENCE NOTES:

1. FOR GENERAL UTILITY NOTES, SEE SHEET SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. FOR STORM DRAIN PROFILES, SEE SHEETS DP-1 THRU DP-5.
4. FOR SWM-BMP DESIGN SUMMARY, PLAN, SECTIONS AND DETAILS, SEE SHEETS SW-3 THRU SW-18.

LEGEND:

- BMP – BIORETENTION
- BMP – PERMEABLE PAVER
- BULKHEAD
- LOD — LIMIT OF DISTURBANCE

SD-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

STORM DRAINAGE PLAN – 2

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF

DATE

FILE

DWG. 49 OF 197

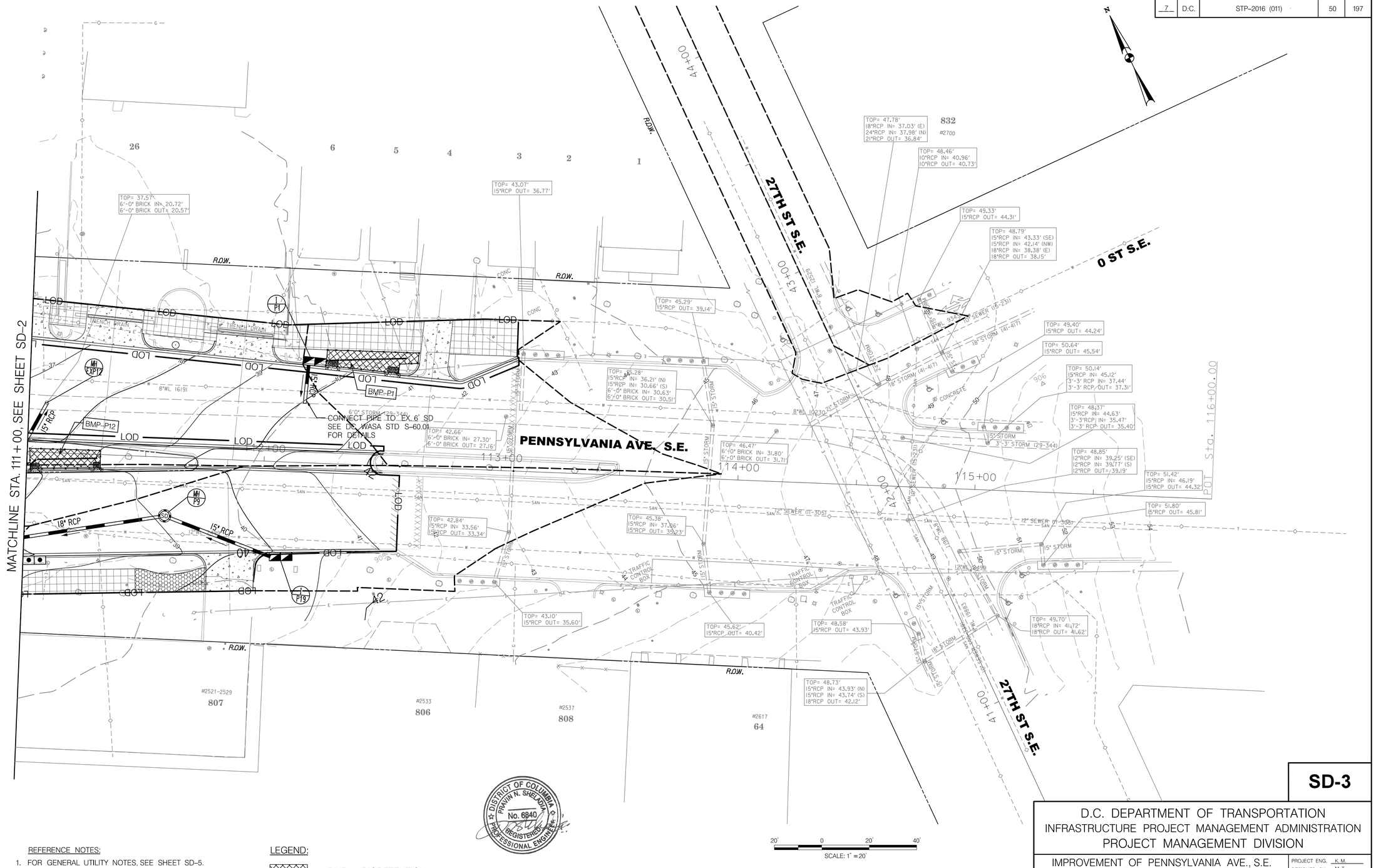
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\pSD-P002_ED08IA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	50	197



REFERENCE NOTES:

1. FOR GENERAL UTILITY NOTES, SEE SHEET SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. FOR STORM DRAIN PROFILES, SEE SHEETS DP-1 THRU DP-5.
4. FOR SWM-BMP DESIGN SUMMARY, PLAN, SECTIONS AND DETAILS, SEE SHEETS SW-3 THRU SW-18.

LEGEND:

- BMP – BIORETENTION
- BMP – PERMEABLE PAVER
- LOD — LIMIT OF DISTURBANCE

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
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Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

SD-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

STORM DRAINAGE PLAN – 3

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 50 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\PSD-P003_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	51	197

N

ALLEY

ALLEY -2

NICHOLSON ST S.E.

N 59° 08' 22" W 125.23'

R.O.W.

MATCHLINE STA. 31+00, SEE SHEET SD-2

L'ENFANT SQ. S.E.

MINNESOTA AVE. S.E.

WHITE PL S.E.

ABANDON EX. CATCH BASIN AND CONNECTING PIPE

ABANDON EX. CATCH BASINS AND CONNECTING PIPES

CONNECT PIPES TO EX. MANHOLE

REPLACE EX. CATCH BASIN WITH STANDARD DOUBLE BASIN

MATCHLINE STA. 207+25, SEE SHEET SD-2

BMP-L3

BMP-SP2

BMP-M5

TOP= 34.39'
10"RCP IN= 26.00'
10"RCP OUT= 25.95'

TOP= 34.80'
10"RCP OUT= 26.20'

TOP= 39.69'
10"RCP IN= 30.07' (NE)
10"RCP IN= 30.30' (SW)
10"RCP OUT= 29.90'

TOP= 42.12'
24"BRICK IN= 27.77'
2'X3' BRICK OUT= 27.75'

TOP= 42.60'
10"RCP IN= 32.00' (SW)
10"RCP IN= 31.65' (SE)
10"RCP OUT= 31.55'

TOP= 36.37'
10"RCP OUT= 31.68'

TOP= 35.21'
15"TERRA IN= 30.24' ('A')
15"TERRA IN= 27.86' ('B')
15"TERRA IN= 26.50' ('C')
2'X3' IN= 21.83'
2'X3' OUT= 21.70'

TOP= 37.81'
FILLED WITH DEBRIS
UNABLE TO DETERMINE
"OUT" CONNECTION

TOP= 38.83'
2'X3' IN= 25.23'
2'X3' OUT= 25.23'

TOP= 35.70'
FILLED WITH DEBRIS
BOTTOM= 31.10'

TOP= 35.79'
10"RCP IN= 30.37'
10"RCP OUT= 30.35'

TOP= 44.51'
FILLED WITH DEBRIS
BOTTOM= 43.56'

TOP= 44.60'
FILLED WITH DEBRIS
BOTTOM= 42.30'

TOP= 37.33'
FILLED WITH DEBRIS
BOTTOM= 33.13'

TOP= 36.65'
FILLED WITH DEBRIS
BOTTOM= 32.50'

TOP= 37.66'
FILLED WITH DEBRIS
BOTTOM= 33.06'

TOP= 37.33'
FILLED WITH DEBRIS
BOTTOM= 33.13'

TOP= 35.79'
10"RCP IN= 30.37'
12"RCP IN= 30.35'
10"RCP OUT= 30.35'

STA. 203+02.47, MINNESOTA AVE. S.E.
LIMIT OF WORK
LIMIT OF PAVEMENT
MATCH EXISTING CURB ELEV.
AND MATCH EXIST. GRADE

STA. 00+00 25TH ST. S.E.
LIMIT OF WORK
LIMIT OF PAVEMENT
MATCH EXISTING CURB ELEV.
AND MATCH EXIST. GRADE

REFERENCE NOTES:

1. FOR GENERAL UTILITY NOTES, SEE SHEET SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. FOR STORM DRAIN PROFILES, SEE SHEETS DP-1 THRU DP-5.
4. FOR SWM-BMP DESIGN SUMMARY, PLAN, SECTIONS AND DETAILS, SEE SHEETS SW-3 THRU SW-18.

LEGEND:

- BMP – BIORETENTION
- BMP – PERMEABLE PAVER
- LOD — LIMIT OF DISTURBANCE

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

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SD-4

SHELADIA ASSOCIATES, INC.
Engineers, Architects
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15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

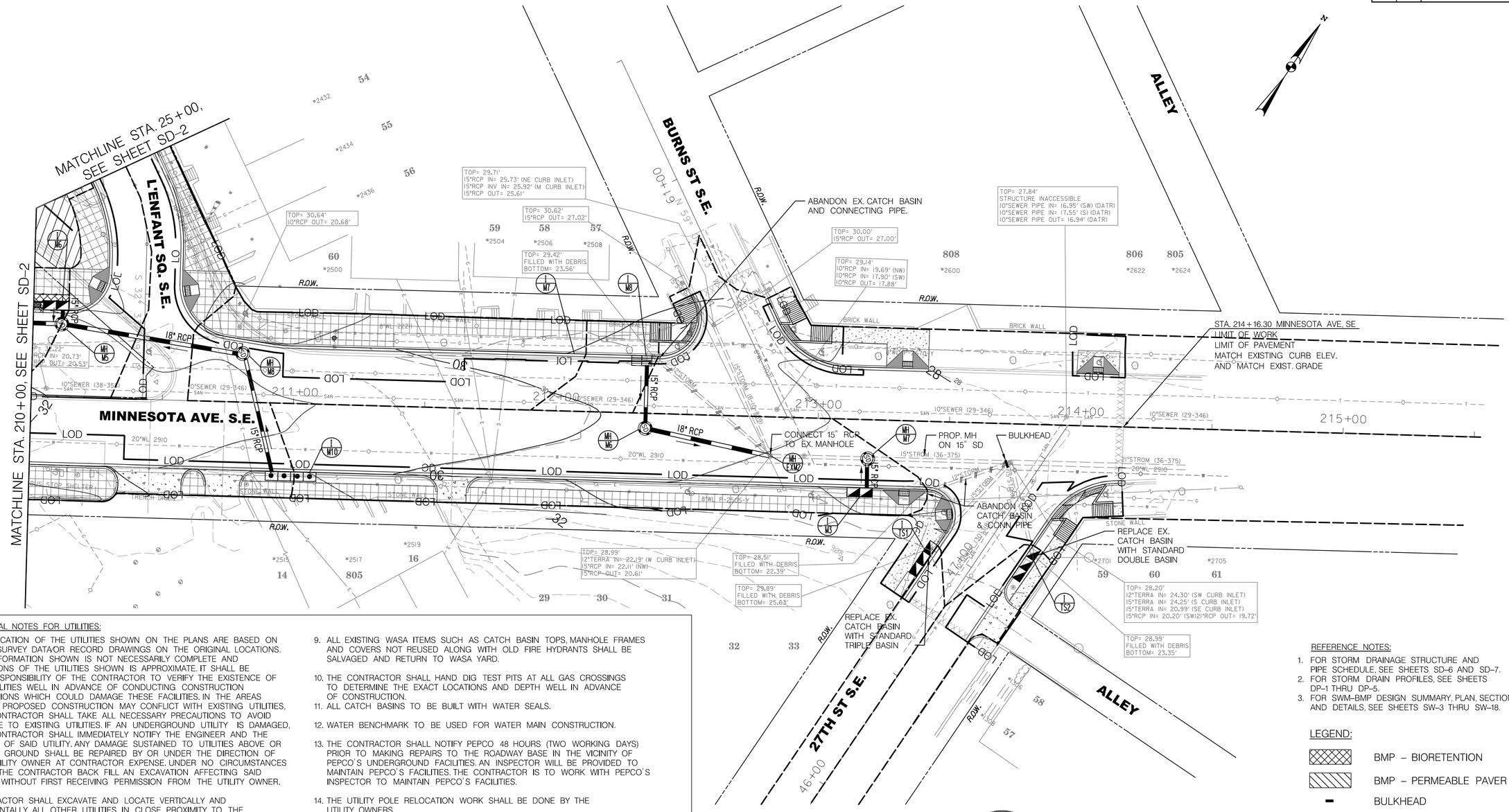
STORM DRAINAGE PLAN – 4

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 51 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\PSD-P004_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	52	197



GENERAL NOTES FOR UTILITIES:

1. THE LOCATION OF THE UTILITIES SHOWN ON THE PLANS ARE BASED ON FIELD SURVEY DATA OR RECORD DRAWINGS ON THE ORIGINAL LOCATIONS. THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND LOCATIONS OF THE 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 SAID UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW GROUND SHALL BE REPAIRED BY OR UNDER THE DIRECTION OF THE UTILITY OWNER AT CONTRACTOR EXPENSE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BACK FILL AN EXCAVATION AFFECTING SAID UTILITY WITHOUT FIRST RECEIVING PERMISSION FROM THE UTILITY OWNER.
2. CONTRACTOR SHALL EXCAVATE AND LOCATE VERTICALLY AND HORIZONTALLY ALL OTHER UTILITIES IN CLOSE PROXIMITY TO THE PROPOSED WATER AND SEWER FACILITIES.
3. PLACE BULKHEADS AT ALL OPEN ENDS OF SEWERS AND WATER MAINS TO BE ABANDONED. CAPS MAY BE UTILIZES ON 16" AND SMALLER DIAMETER WATER MAINS.
4. REMOVE FRAME AND COVERS OF SEWER MANHOLES AND/OR WATER MAIN VALVES CASINGS TO BE ABANDONED AND FILL TO THE GRADE.
5. ALL 12" AND SMALLER DIAMETER WATER MAIN FITTINGS, INCLUDING VALVES AND FIRE HYDRANTS, TO BE INSTALLED USING DUCTILE IRON RETAINER GLANDS AS FOLLOWER RINGS INSTEAD OF STANDARD FOLLOWER RINGS FOR RESTRAINT.
6. IF CONNECTIONS FROM BASINS TO BE CONVERTED (BUILT), ARE FOUND DURING CONSTRUCTION TO BE SMALLER THAN 15-INCH DIA., REPLACE BASIN CONNECTIONS WITH 15-INCH DIA. R.C.P.R.S. CLASS III WITH RUBBER GASKET BASIN CONNECTION.
7. REMOVE EXIST. SINGLE BASIN AND REPLACE WITH STANDARD DOUBLE BASIN AS SHOWN IN CONTRACT PLANS.
8. NOTIFY MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO EXCAVATING
9. ALL EXISTING WASA ITEMS SUCH AS CATCH BASIN TOPS, MANHOLE FRAMES AND COVERS NOT REUSED ALONG WITH OLD FIRE HYDRANTS SHALL BE SALVAGED AND RETURN TO WASA YARD.
10. THE CONTRACTOR SHALL HAND DIG TEST PITS AT ALL GAS CROSSINGS TO DETERMINE THE EXACT LOCATIONS AND DEPTH WELL IN ADVANCE OF CONSTRUCTION.
11. ALL CATCH BASINS TO BE BUILT WITH WATER SEALS.
12. WATER BENCHMARK TO BE USED FOR WATER MAIN CONSTRUCTION.
13. THE CONTRACTOR SHALL NOTIFY PEPCO 48 HOURS (TWO WORKING DAYS) PRIOR TO MAKING REPAIRS TO THE ROADWAY BASE IN THE VICINITY OF PEPCO'S UNDERGROUND FACILITIES. AN INSPECTOR WILL BE PROVIDED TO MAINTAIN PEPCO'S FACILITIES. THE CONTRACTOR IS TO WORK WITH PEPCO'S INSPECTOR TO MAINTAIN PEPCO'S FACILITIES.
14. THE UTILITY POLE RELOCATION WORK SHALL BE DONE BY THE UTILITY OWNERS.
15. IF EXISTING CONNECTION PIPE IS DAMAGED DURING REMOVAL OF EXISTING BASIN, CUT THE EXISTING PIPE AT LEAST 3' FROM BASIN AND CONNECT WITH CONCRETE PIPE COLLAR AS PER STD. NO. 323.01 "REINFORCED PIPE COLLAR DETAIL".

UTILITY NOTES: WATER SEAL (TYP.)

1. 15" DIA. CATCH BASIN CONNECT PIPE SHALL BE CONNECTED TO ALL CATCH BASINS WITH THE WATER SEAL. FOR DETAILS, SEE DCWASA STANDARD DETAIL S-30.20 SHEET 1 OF 2.
2. GRAY-IRON CASTINGS FOR WATER SEAL SHALL BE PER AASHTO M105, CLASS 30A.
3. ALL MACHINE FINISH TO BE A.S.A. SPECIFICATION, ROUGHNESS SYMBOL 250. TOLERANCE -0" +1/16".
4. WHEN THE CATCH BASIN CONNECTION PIPE IS NOT PERPENDICULAR TO THE CATCH BASIN WALL, THE WALL SHALL BE MODIFIED TO INSTALL WATER SEAL ON SAME ALIGNMENT AS THE CATCH BASIN PIPE. FOR DETAILS, SEE DCWASA STANDARD DETAIL S-30.20 SHEET 2 OF 2.
5. "DC WATER GREEN INFRASTRUCTURE UTILITY PROTECTION GUIDELINE" SHOULD BE FOLLOWED FOR THE PROTECTION OF DC WATER UTILITY LINE AS NEEDED.

REFERENCE NOTES:

1. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
2. FOR STORM DRAIN PROFILES, SEE SHEETS DP-1 THRU DP-5.
3. FOR SWM-BMP DESIGN SUMMARY, PLAN, SECTIONS AND DETAILS, SEE SHEETS SW-3 THRU SW-18.

LEGEND:

- BMP – BIORETENTION
- BMP – PERMEABLE PAVER
- BULKHEAD
- LOD — LIMIT OF DISTURBANCE

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

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

SD-5

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Engineers, Architects
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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

STORM DRAINAGE PLAN – 5

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 52 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\DSD-P005_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	53	197

PROPOSED DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NUMBER	DESCRIPTION	BASELINE	STATION	OFFSET	INVERT ELEVATION	TOP ELEVATION	VERTICAL DEPTH (FT)	DC WATER DETAILS
I-P4	DOUBLE CB	PENNSYLVANIA AVE. S.E.	105+18.69	60.50' LT.	19.15	25.61	7.96	S-30.03
I-P5	TRIPLE CB	PENNSYLVANIA AVE. S.E.	103+36.94	60.50' LT.	15.66	21.87	7.71	S-30.03
I-P10	TRIPLE CB	PENNSYLVANIA AVE. S.E.	105+25.32	60.50' RT.	21.63	26.77	6.64	S-30.03
I-P11	Double Grate CB	PENNSYLVANIA AVE. S.E.	102+92.20	58.50' RT.	15.36	20.95	7.09	S-30.31
I-P15	DOUBLE CB	PENNSYLVANIA AVE. S.E.	102+98.80	14.50' RT.	16.31	22.19	7.38	S-30.03
I-P16	DOUBLE CB	PENNSYLVANIA AVE. S.E.	102+02.72	14.50' LT.	12.96	19.92	8.46	S-30.03
MH-P1	MANHOLE	PENNSYLVANIA AVE. S.E.	103+32.17	48.17' LT.	14.00	21.44	7.44	S-20.01
MH-P2	MANHOLE	PENNSYLVANIA AVE. S.E.	105+13.80	48.55' LT.	18.00	25.35	7.35	S-20.01
MH-P3	MANHOLE	PENNSYLVANIA AVE. S.E.	102+94.60	0' Median	16.22	22.34	6.12	S-20.11
MH-P4	MANHOLE	PENNSYLVANIA AVE. S.E.	102+88.40	50.58' RT.	14.40	21.26	6.86	S-20.01
MH-P5	MANHOLE	PENNSYLVANIA AVE. S.E.	105+22.39	52.50' RT.	18.24	26.32	8.08	S-20.01
I-P20	DOUBLE CB	PENNSYLVANIA AVE. S.E.	105+24.57	3.51' RT.	18.90	27.17	9.77	S-30.03

REFER TO SHEET SD-1 FOR STORM DRAINAGE PLAN

PROPOSED STORM DRAIN PIPE SCHEDULE

STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	INVERT IN	INVERT OUT	SIZE	TYPE	LENGTH (FT)
I-P4	MH-P2	19.15	18.75	15"	CLASS IV RCP	12
MH-P2	MH-P1	18.00	15.00	18"	CLASS IV RCP	179
I-P5	MH-P1	15.66	15.36	15"	CLASS IV RCP	10
MH-P1	MH-EXR1	14.00	13.19	18"	CLASS IV RCP	85
I-P10	MH-P5	21.63	21.51	15"	CLASS IV RCP	6
MH-P5	MH-P4	18.24	15.26	18"	CLASS IV RCP	229
I-P11	MH-P4	15.36	15.22	15"	CLASS IV RCP	5
MH-P4	MH-EXP1	14.40	13.95	18"	CLASS IV RCP	35
I-P15	MH-P3	16.31	16.22	15"	CLASS IV RCP	10
I-P20	MH-P5	18.90	18.43	15"	CLASS IV RCP	47.0

PROPOSED DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NUMBER	DESCRIPTION	BASELINE	STATION	OFFSET	INVERT ELEVATION	TOP ELEVATION	VERTICAL DEPTH (FT)	DC WATER DETAILS
I-P2	TRIPLE CB	PENNSYLVANIA AVE. S.E.	110+43.84	52.20' LT.	31.05	35.70	6.15	S-30.03
I-P3	DOUBLE CB	PENNSYLVANIA AVE. S.E.	107+05.79	60.50' LT.	21.60	29.55	9.45	S-30.03
I-P9	TRIPLE CB	PENNSYLVANIA AVE. S.E.	107+14.73	60.50' RT.	23.91	30.99	8.58	S-30.03
I-P7	WATER QUALITY BASIN	PENNSYLVANIA AVE. S.E.	109+72.56	51.60' RT.	31.00	36.42	6.92	S-31.02
I-P8	DOUBLE CB	PENNSYLVANIA AVE. S.E.	108+50.74	50.50' RT.	30.75	34.33	5.08	S-30.03
I-P6	WATER QUALITY BASIN	PENNSYLVANIA AVE. S.E.	110+99.25	44.56' RT.	33.56	38.40	6.34	S-31.02
I-P12	DOUBLE CB	PENNSYLVANIA AVE. S.E.	110+96.74	8.31' RT.	31.20	38.46	8.76	S-30.03
I-P13	DOUBLE Grate CB	PENNSYLVANIA AVE. S.E.	109+81.07	14.65' RT.	28.60	35.93	7.33	S-30.31
I-P14	WATER QUALITY BASIN	PENNSYLVANIA AVE. S.E.	107+11.85	8.50' LT.	25.59	31.32	7.23	S-31.02
I-P17	SINGLE CB	PENNSYLVANIA AVE. S.E.	109+18.43	60.37' RT.	30.74	35.88	6.64	S-30.01
*I-L6	DOUBLE CB	ALLEY-1	1+04.14	13.00' RT.	21.21	27.11	5.90	S-30.03
I-L5	DOUBLE CB	L'ENFANT SQ. S.E.	22+76.26	14.00' RT.	20.70	27.83	8.63	S-30.03
I-L4	DOUBLE CB	L'ENFANT SQ. S.E.	21+98.57	14.00' RT.	20.52	27.35	8.33	S-30.03
I-L2	WATER QUALITY BASIN	ALLEY-3	30+85.37	14.00' LT.	25.79	30.61	6.32	S-31.02
MH-M4	MANHOLE	MINNESOTA AVE. S.E.	209+02.60	24.97' LT.	22.98	33.00	10.02	S-20.01
MH-P8	MANHOLE	PENNSYLVANIA AVE. S.E.	110+92.81	36.95' RT.	31.25	37.96	6.71	S-20.01
MH-P7	MANHOLE	PENNSYLVANIA AVE. S.E.	108+69.21	55.07' LT.	25.96	32.03	6.07	S-20.01
I-P18	WATER QUALITY BASIN	PENNSYLVANIA AVE. S.E.	108+33.00	62.50' LT.	26.45	31.36	6.41	S-31.02
R-2	RISER	L'ENFANT SQ. S.E.	22+08.67	37.11' RT.	19.00	27.00	8.00	
R-1	RISER	L'ENFANT SQ. S.E.	3080.63	31.39' LT.	23.3	30.00	8.2	

* WITHOUT CATCHMENT CHAMBER

REFER TO SHEET SD-2 FOR STORM DRAINAGE PLAN

PROPOSED STORM DRAIN PIPE SCHEDULE

STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	INVERT IN	INVERT OUT	SIZE	TYPE	LENGTH (FT)
I-P3	MH-EXP10	21.60	21.02	15"	CLASS IV RCP	27
I-P9	MH-EX2	23.91	23.65	15"	CLASS IV RCP	26
I-P7	MH-EXP4	31.00	30.85	15"	CLASS IV RCP	6
I-P6	MH-P8	33.56	33.44	15"	CLASS IV RCP	6
I-P12	MH-EXP12	31.20	30.78	15"	CLASS IV RCP	29
I-P13	MH-EXP4	28.60	28.28	15"	CLASS IV RCP	29
I-L6	MH-EXL3	21.21	20.70	15"	CLASS IV RCP	32
I-L5	MH-EXL3	20.70	20.49	15"	CLASS IV RCP	15
I-L4	MH-EXL2	20.52	20.25	15"	CLASS IV RCP	14
I-L2	MH-EXL1	25.79	25.66	15"	CLASS IV RCP	6
MH-M4	MH-EXM4	22.98	22.88	18"	CLASS IV RCP	20
MH-P8	MH-EXP4	31.25	29.65	18"	CLASS IV RCP	120
MH-EXL1	MH-EX2	22.10	21.30	18"	CLASS IV RCP	15
I-P18	MH-P7	26.45	26.17	15"	CLASS IV RCP	27
MH-P7	MH-EXM4	25.96	25.49	18"	CLASS IV RCP	47
R-2	MH-EXL2	19.00	17.85	15"	CLASS IV RCP	27
R-1	MH-EXL1	23.30	23.00	15"	CLASS IV RCP	20

PROPOSED DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NUMBER	DESCRIPTION	BASELINE	STATION	OFFSET	INVERT ELEVATION	TOP ELEVATION	VERTICAL DEPTH (FT)	DC WATER DETAILS
I-P1	DOUBLE CB	PENNSYLVANIA AVE. S.E.	112+19.55	41.00' LT.	31.00	40.40	10.90	S-30.03
I-P19	DOUBLE CB	PENNSYLVANIA AVE. S.E.	112+08.47	38.28' RT.	34.29	40.19	7.40	S-30.03
MH-P9	MANHOLE	PENNSYLVANIA AVE. S.E.	111+58.98	24.76' RT.	32.92	39.13	6.21	S-20.01

REFER TO SHEET SD-3 FOR STORM DRAINAGE PLAN

PROPOSED STORM DRAIN PIPE SCHEDULE

STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	INVERT IN	INVERT OUT	SIZE	TYPE	LENGTH (FT)
I-P1	6' TRUNK	31.00	29.00	15"	CLASS IV RCP	17
I-P19	MH-9	34.29	33.39	15"	CLASS IV RCP	45
MH-P9	MH-P8	32.92	31.98	18"	CLASS IV RCP	63

NOTES:

1. FOR PLAN VIEW, SEE SHEETS SD-1 THRU SD-5.
2. FOR STORM DRAIN PROFILES, SEE SHEETS DP-1 THRU DP-5.
3. STATIONS AND OFFSETS SHOWN ARE TAKEN FROM BASELINE TO CENTER OF THE STRUCTURES.
4. FOR DC WATER STRUCTURES STANDARD DETAILS, SEE SHEETS SD-8 THRU SD-11.

DISTRICT OF COLUMBIA · IRWIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

SD-6

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE – 1

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 53 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\SD-P006.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	54	197

PROPOSED DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NUMBER	DESCRIPTION	BASELINE	STATION	OFFSET	INVERT ELEVATION	TOP ELEVATION	VERTICAL DEPTH (FT)	DC WATER DETAILS
I-M1	WATER QUALITY BASIN	MINNESOTA AVE. S.E.	206+49.70	29.00' RT.	28.10	36.55	9.95	S-31.02
I-M5	DOUBLE CB	MINNESOTA AVE. S.E.	206+66.83	33.00' LT.	27.50	35.61	9.61	S-30.03
I-M4	WATER QUALITY BASIN	MINNESOTA AVE. S.E.	204+58.43	40.64' LT.	33.10	38.76	7.16	S-31.02
I-L3	DOUBLE CB	ALLEY-3	31+08.31	13.00' RT.	22.50	30.57	9.57	S-30.03
I-L1	DOUBLE CB	ALLEY-3	32+74.10	13.00' LT.	27.60	35.73	9.63	S-30.03
I-TF1	TRIPLE CB	25TH STREET S.E.	50+88.08	15.00' RT.	34.90	39.73	6.33	S-30.03
I-TF2	DOUBLE CB	25TH STREET S.E.	50+47.68	15.07' LT.	NO DATA	37.50		S-30.03
I-TF3	DOUBLE CB	25TH STREET S.E.	51+15.33	15.00' LT.	36.25	43.72	8.97	S-30.03
I-M9	TRIPLE CB	MINNESOTA AVE. S.E.	202+71.91	31.04' LT.	36.50	41.72	6.72	S-30.03
I-M2	WATER QUALITY BASIN	MINNESOTA AVE. S.E.	204+85.50	29.00'RT.	28.98	39.39	11.91	S-31.02
MH-A1	MANHOLE	L'ENFANT SQ. S.E.	32+20.66	8.07' LT.	26.42	34.47	8.05	S-20.01
MH-M2	MANHOLE	MINNESOTA AVE. S.E.	206+74.33	6.07' LT.	27.10	36.00	8.90	S-20.01
MH-M3	MANHOLE	25TH STREET S.E.	50+85.50	9.12' RT.	27.95	39.32	11.37	S-20.01

REFER TO SHEET SD-4 FOR STORM DRAINAGE PLAN

PROPOSED STORM DRAIN PIPE SCHEDULE

STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	INVERT IN	INVERT OUT	SIZE	TYPE	LENGTH (FT)
I-M1	MH-M2	28.10	27.71	15"	CLASS IV RCP	39
I-M5	MH-M2	27.50	27.25	15"	CLASS IV RCP	25
MH-M2	MH-EXM1	27.10	26.62	18"	CLASS IV RCP	49
I-M4	MH-EXM3	33.10	32.08	15"	CLASS IV RCP	55
I-L3	MH-EXL1	22.50	22.15	15"	CLASS IV RCP	35
I-L1	MH-A1	27.60	27.19	15"	CLASS IV RCP	25
MH-A1	MH-EXL1	26.42	24.71	18"	CLASS IV RCP	140
I-TF1	MH-M3	34.90	34.86	15"	CLASS IV RCP	5
MH-M3	MH-EXM1	27.95	26.50	18"	CLASS IV RCP	73
I-TF3	MH-M3	36.25	34.22	15"	CLASS IV RCP	35
I-M9	MH-EXM8	36.50	36.07	15"	CLASS IV RCP	43
I-M2	MH-EXM3	28.98	28.77	15"	CLASS IV RCP	24

PROPOSED DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NUMBER	DESCRIPTION	BASELINE	STATION	OFFSET	INVERT ELEVATION	TOP ELEVATION	VERTICAL DEPTH (FT)	DC WATER DETAILS
I-M3	DOUBLE CB	MINNESOTA AVE. S.E.	213+37.41	26.00' RT.	23.77	28.57	6.30	S-30.03
I-M8	DOUBLE GRATE CB	MINNESOTA AVE. S.E.	212+07.20	21.63' LT.	23.92	29.08	6.66	S-30.31
I-M6	DOUBLE CB	MINNESOTA AVE. S.E.	210+08.58	32.68' LT.	23.63	31.38	9.25	S-30.03
I-TS1	TRIPLE CB	27TH STREET S.E.	46+92.45	15.20' LT.	25.63	30.24	6.11	S-30.03
I-TS2	TRIPLE CB	27TH STREET S.E.	47+12.96	14.76' RT.	23.35	29.14	7.29	S-30.03
MH-M5	MANHOLE	MINNESOTA AVE. S.E.	210+11.25	25.24' LT.	23.60	31.20	7.60	S-20.01
MH-M6	MANHOLE	MINNESOTA AVE. S.E.	212+33.00	5.64' RT.	23.16	29.81	6.65	S-20.01
MH-M7	MANHOLE	MINNESOTA AVE. S.E.	213+39.89	14.86' RT.	20.31	28.45	8.14	S-20.11
I-M10	WATER QUALITY BASIN	MINNESOTA AVE. S.E.	210+99.13	26.00' RT.	25.55	31.15	7.10	S-31.02
MH-M8	MANHOLE	MINNESOTA AVE. S.E.	210+80.10	18.52' LT.	24.88	30.88	6.00	S-20.11

REFER TO SHEET SD-05 FOR STORM DRAINAGE PLAN

PROPOSED STORM DRAIN PIPE SCHEDULE

STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	INVERT IN	INVERT OUT	SIZE	TYPE	LENGTH (FT)
I-M6	MH-M5	23.63	23.60	15"	CLASS IV RCP	6
MH-M5	MH-M4	23.60	23.08	18"	CLASS IV RCP	108
I-M3	MH-M7	23.77	23.50	15"	CLASS IV RCP	10
I-M8	MH-M6	23.92	23.41	15"	CLASS IV RCP	22
MH-M6	MH-EXM2	23.16	22.45	18"	CLASS IV RCP	47
I-M10	MH-M8	25.55	25.13	15"	CLASS IV RCP	45
MH-M8	MH-M5	24.88	24.23	18"	CLASS IV RCP	65

NOTES:

1. FOR PLAN VIEW, SEE SHEETS SD-1 THRU SD-5.
2. FOR STORM DRAIN PROFILES, SEE SHEETS DP-1 THRU DP-5.
3. STATIONS AND OFFSETS SHOWN ARE TAKEN FROM BASELINE TO CENTER OF THE STRUCTURES.
4. FOR DC WATER STRUCTURES STANDARD DETAILS, SEE SHEETS SD-8 THRU SD-11.

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

PRAVIN N. SHELADIA — DISTRICT OF COLUMBIA — No. 6840 — REGISTERED PROFESSIONAL ENGINEER

SD-7

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE

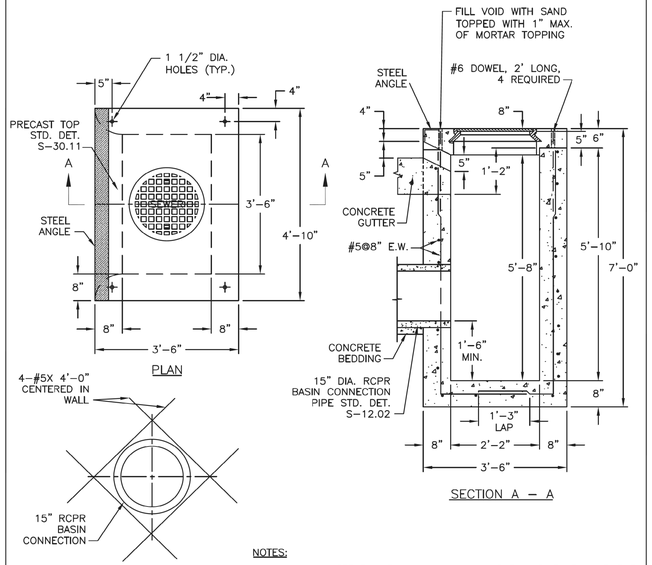
DIVISION CHIEF
DATE
FILE
DWG. 54 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\pSD-P007_ED0BIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	55	197

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-30.01
1 OF 1



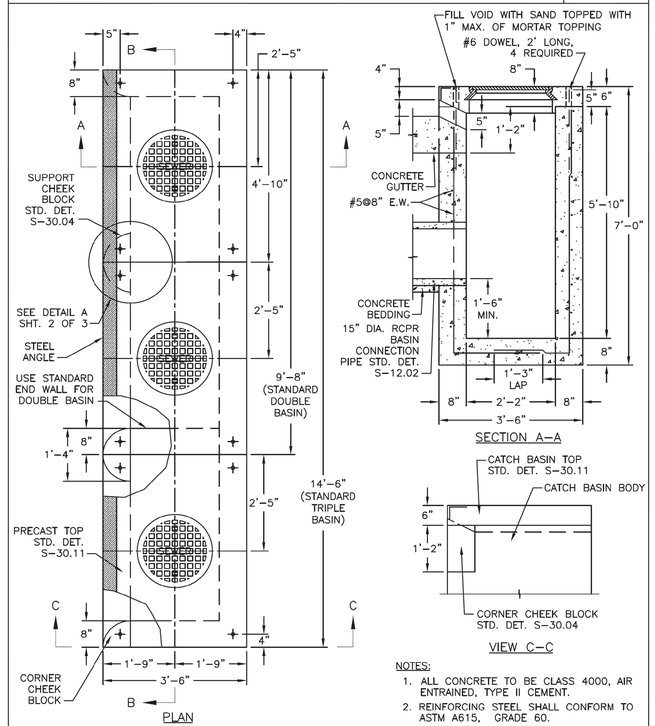
NOTES:

1. ALL CONCRETE TO BE CLASS 4000, AIR ENTRAINED,TYPE II CEMENT
2. REINFORCING SHALL BE CENTERED IN WALLS AND BASE AND SHALL CONFORM TO ASTM AC15 GRADE 60.

APPROVED DATE: June 20, 2003 — Digitally signed by Leonard Barkon, Date: 2004.11.24 07:56:36 -05'00' — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBG/BKJV CHECKED BY: W.DARROW	STANDARD DETAIL STANDARD CATCH BASIN

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-30.03
1 OF 2



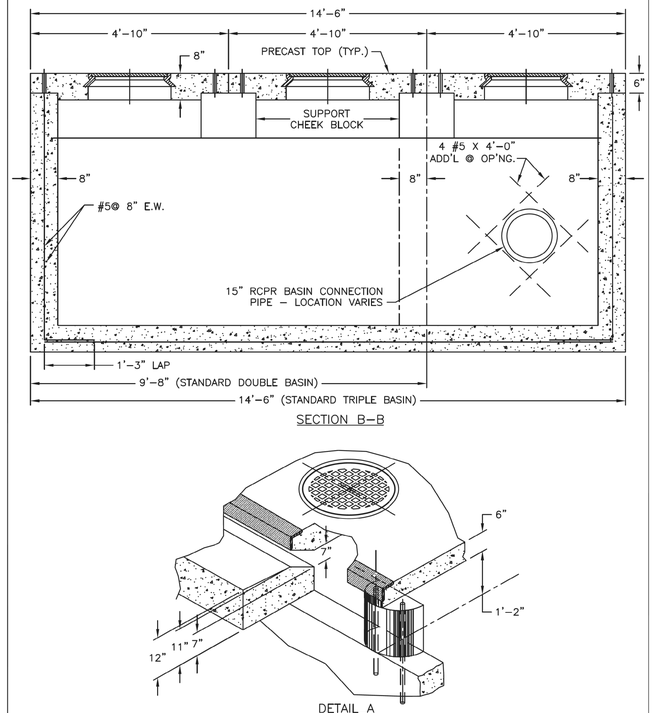
NOTES:

1. ALL CONCRETE TO BE CLASS 4000, AIR ENTRAINED, TYPE II CEMENT.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.

APPROVED DATE: June 20, 2003 — Digitally signed by Leonard Barkon, Date: 2004.11.24 07:56:05 -05'00' — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBG/BKJV CHECKED BY: W.DARROW	STANDARD DETAIL STANDARD DOUBLE AND STANDARD TRIPLE BASINS

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-30.03
2 OF 2



APPROVED DATE: June 20, 2003 — Digitally signed by Leonard Barkon, Date: 2004.11.24 07:56:20 -05'00' — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBG/BKJV CHECKED BY: W.DARROW	STANDARD DETAIL STANDARD DOUBLE AND STANDARD TRIPLE BASINS

PRAWIN N. SHELADIA — No. 6840 — REGISTERED PROFESSIONAL ENGINEER — DISTRICT OF COLUMBIA

SD-8

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

STORM DRAIN STRUCTURES
STANDARD DETAILS – 1

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 55 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

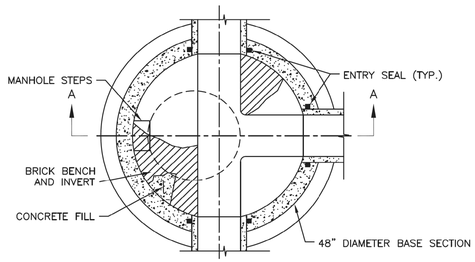
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\pSD-D008.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:27 AM

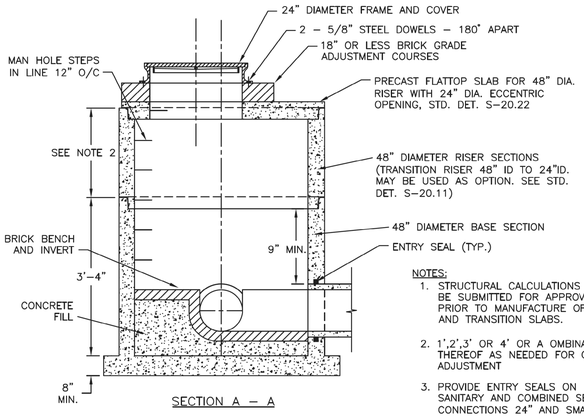
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	56	197

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-20.01
1 OF 1



SECTIONAL PLAN



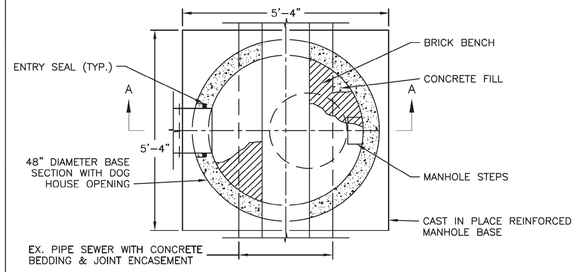
SECTION A - A

NOTES:
1. STRUCTURAL CALCULATIONS MUST BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OF BASE AND TRANSITION SLABS.
2. 1',2',3' OR 4' OR A OMBINATION THEREOF AS NEEDED FOR GRADE ADJUSTMENT
3. PROVIDE ENTRY SEALS ON SANITARY AND COMBINED SEWER CONNECTIONS 24" AND SMALLER.

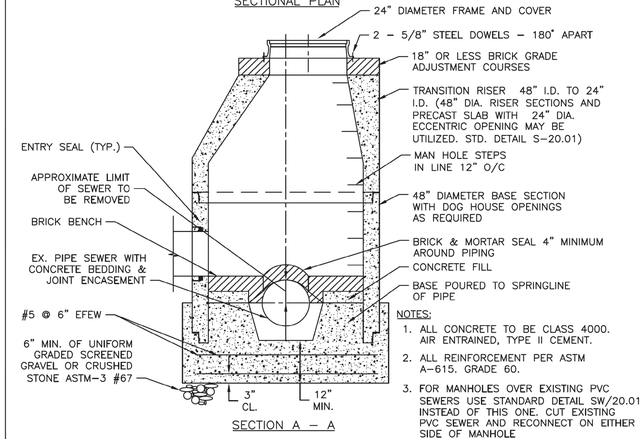
APPROVED DATE: June 20, 2003 Digitally signed by Leonard Barson Date: 2004.11.24 07:46:19 -05'00' DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBG/BKJV CHECKED BY: W.DARROW	STANDARD DETAIL PRECAST CONCRETE MANHOLE FOR NEW 10" THRU 21" DIAMETER SEWERS (48" DIAMETER PRECAST BASE)

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-20.11
1 OF 1



SECTIONAL PLAN



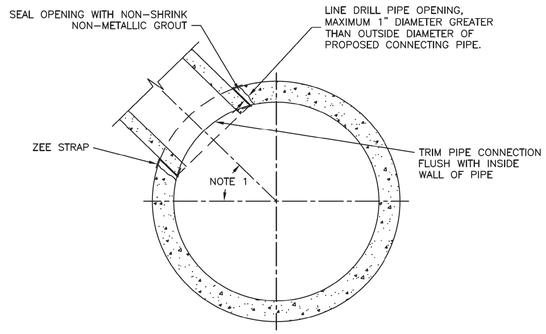
SECTION A - A

NOTES:
1. ALL CONCRETE TO BE CLASS 4000. AIR ENTRAINED, TYPE II CEMENT.
2. ALL REINFORCEMENT PER ASTM A-615. GRADE 60.
3. FOR MANHOLES OVER EXISTING PVC SEWERS USE STANDARD DETAIL SW/20.01 INSTEAD OF THIS ONE. CUT EXISTING PVC SEWER AND RECONNECT ON EITHER SIDE OF MANHOLE

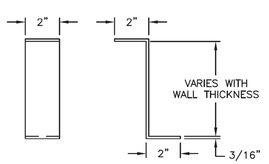
APPROVED DATE: June 20, 2003 Digitally signed by Leonard Barson Date: 2004.11.24 07:47:29 -05'00' DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBG/BKJV CHECKED BY: W.DARROW	STANDARD DETAIL PRECAST CONCRETE MANHOLE OVER EXISTING 10" THRU 21" DIAMETER SEWERS WITH CAST IN PLACE CONCRETE BASE

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-60.01
1 OF 1



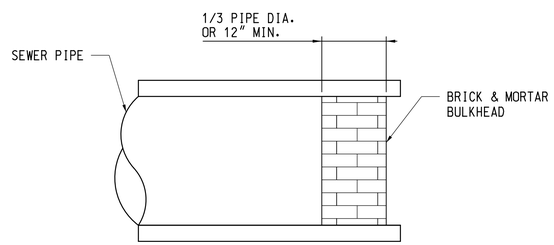
SECTIONAL CONNECTION DETAIL



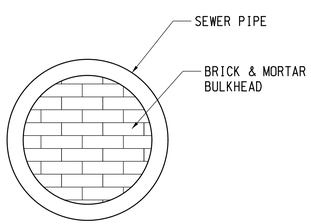
ZEE STRAP DETAIL

NOTE:
1. CONNECTIONS AT AN ANGLE GREATER THAN 45° FROM THE HORIZONTAL WILL ONLY BE PERMITTED WHEN SPECIFICALLY APPROVED BY WASA, AND MAY REQUIRE ADDITIONAL OR DIFFERENT PIPE RESTRAINT THAN ZEE STRAPS.

APPROVED DATE: June 20, 2003 Digitally signed by Leonard Barson Date: 2004.11.24 08:00:59 -05'00' DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBG/BKJV CHECKED BY: W.DARROW	STANDARD DETAIL CONNECTIONS TO SEWERS LARGER THAN 36" I.D. UTILIZING ZEE STRAPS



SEWER BULKHEAD DETAIL SECTION
SCALE: NTS



SEWER BULKHEAD DETAIL END VIEW
SCALE: NTS

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SD-9

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 - WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

STORM DRAIN STRUCTURES
STANDARD DETAILS - 2

DIVISION CHIEF
DATE
FILE
DWG. 56 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

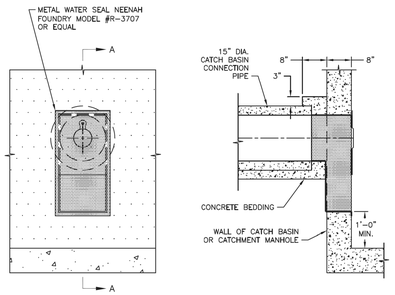
NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\SD-D009.EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:28 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	57	197

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY — S-30.20, 1 OF 2



FRONT ELEVATION — SECTION A–A

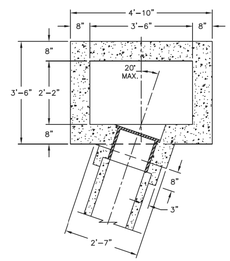
NOTES:

1. GRAY IRON CASTINGS PER ASTM A-48, CLASS 30A.
2. ALL MACHINE FINISH TO BE A.S.A. SPECIFICATION, ROUGHNESS SYMBOL 250, TOLERANCE –0" +1/16".
3. WHEN THE CATCH BASIN CONNECTION PIPE IS NOT PERPENDICULAR TO THE CATCH BASIN WALL, THE WALL SHALL BE MODIFIED TO INSTALL WATER SEAL ON SAME ALIGNMENT AS THE CATCH BASIN PIPE, SEE SECTIONAL PLAN, SHEET 2 OF 2 FOR TYPICAL DETAIL.

APPROVED DATE: June 20, 2003 — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES
REVISION NO.: 0 — DATE: 6/20/03 — PREPARED BY: OBG/BKJV — CHECKED BY: W.DARROW

STANDARD DETAIL
WATER SEAL FOR 15" DIAMETER CATCH BASIN CONNECTION (COMBINED AREA ONLY)

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY — S-30.20, 2 OF 2

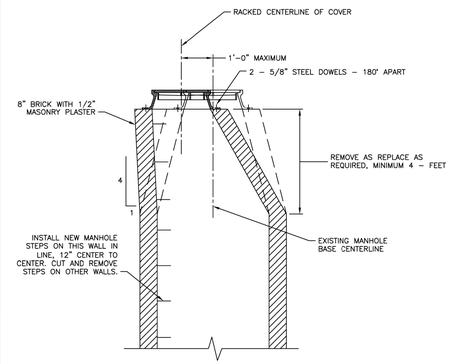


SECTIONAL PLAN

APPROVED DATE: June 20, 2003 — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES
REVISION NO.: 0 — DATE: 6/20/03 — PREPARED BY: OBG/BKJV — CHECKED BY: W.DARROW

STANDARD DETAIL
TYPICAL FOR NON-PERPENDICULAR CATCH BASIN CONNECTION PIPE

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY — S-21.14, 1 OF 1



SECTIONAL VIEW

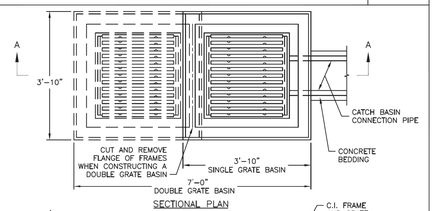
SEWER DIAMETER	FRAME AND COVER DIAMETER (A)
10" THRU 21"	24"
24" THRU 36"	36" *

* 15 – FEET OR LESS, SURFACE TO INVERT, A 36" X 24" DIAMETER ADAPTER RING WITH 24" DIAMETER COVER SHALL BE USED.

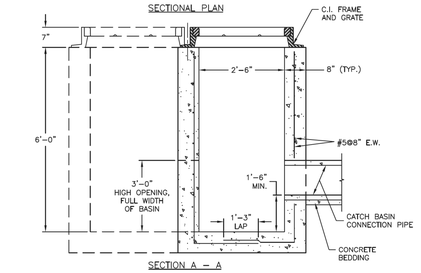
APPROVED DATE: June 20, 2003 — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES
REVISION NO.: 0 — DATE: 6/20/03 — PREPARED BY: OBG/BKJV — CHECKED BY: W.DARROW

STANDARD DETAIL
BRICK MANHOLE RACKING

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY — S-30.31, 1 OF 2



SECTIONAL PLAN



SECTION A – A

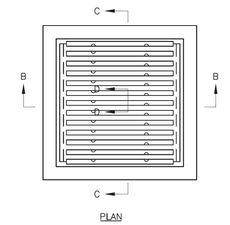
NOTES:

1. GRAY IRON CASTINGS PER ASTM A-48, CLASS 30A.
2. ALL MACHINE FINISH TO BE A.S.A. SPECIFICATION, ROUGHNESS SYMBOL 250, TOLERANCE – 0 + 1/16".
3. ALL CONCRETE TO BE CLASS 4000, AIR ENTRAINED, TYPE II CEMENT.
4. REINFORCING SHALL BE CENTERED IN WALL AND BASE AND SHALL CONFORM TO ASTM A615 GRADE 60.

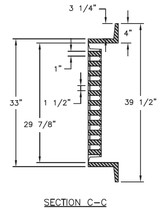
APPROVED DATE: June 20, 2003 — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES
REVISION NO.: 0 — DATE: 6/20/03 — PREPARED BY: OBG/BKJV — CHECKED BY: W.DARROW

STANDARD DETAIL
GRATE TYPE CATCH BASIN WITH SAFETY GRATE

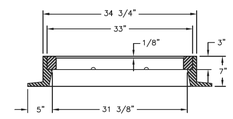
DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY — S-30.31, 2 OF 2



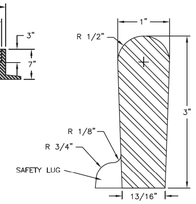
PLAN



SECTION C–C



SECTION B–B



SECTION D–D

APPROVED DATE: June 20, 2003 — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES
REVISION NO.: 0 — DATE: 6/20/03 — PREPARED BY: OBG/BKJV — CHECKED BY: W.DARROW

STANDARD DETAIL
GRATE TYPE CATCH BASIN WITH SAFETY GRATE

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SD-10

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

STORM DRAIN STRUCTURES
STANDARD DETAILS – 3

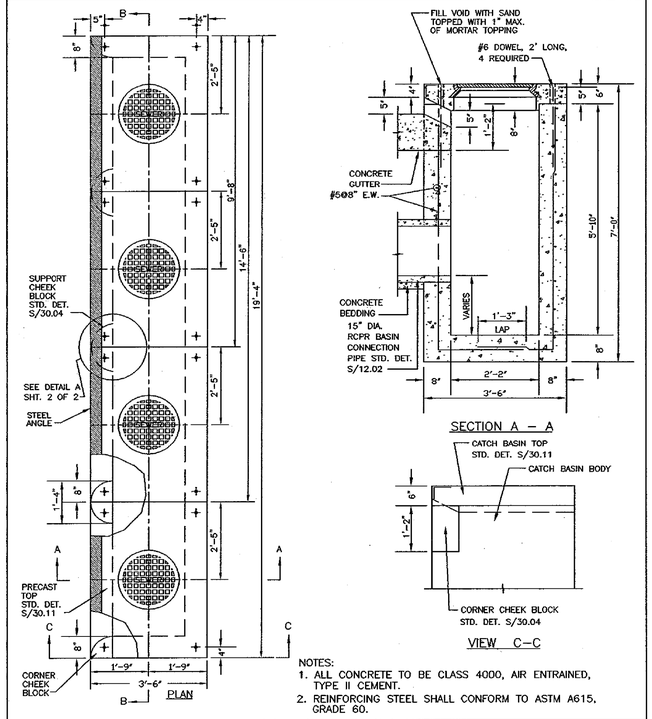
DIVISION CHIEF
DATE
FILE
DWG. 57 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\pSD-D010.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:28 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	58	197

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-31.02
1 OF 3



SECTION A – A

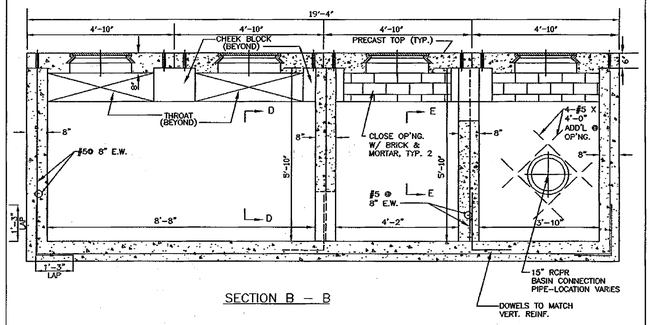
VIEW C–C

NOTES:
1. ALL CONCRETE TO BE CLASS 4000, AIR ENTRAINED, TYPE II CEMENT.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.

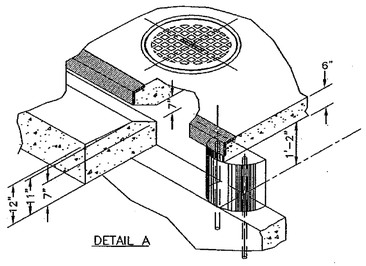
APPROVED DATE: _____ DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 8-16-07 PREPARED BY: W. DEVAUGHN CHECKED BY: W. DARROW	STANDARD DETAIL DUAL THROAT WATER QUALITY BASIN

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-31.02
2 OF 3



SECTION B – B

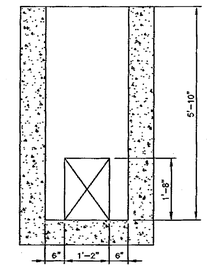


DETAIL A

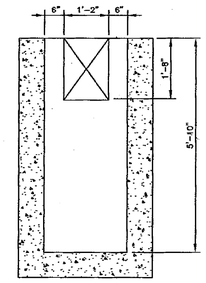
APPROVED DATE: _____ DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 8-16-07 PREPARED BY: W. DEVAUGHN CHECKED BY: W. DARROW	STANDARD DETAIL DUAL THROAT WATER QUALITY BASIN

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-31.02
3 OF 3



VIEW D–D



VIEW E–E

APPROVED DATE: _____ DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 8-16-07 PREPARED BY: W. DEVAUGHN CHECKED BY: W. DARROW	STANDARD DETAIL DUAL THROAT WATER QUALITY BASIN

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

SD-11

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

STORM DRAIN STRUCTURES
STANDARD DETAILS – 4

DIVISION CHIEF
DATE
FILE
DWG. 58 OF 197

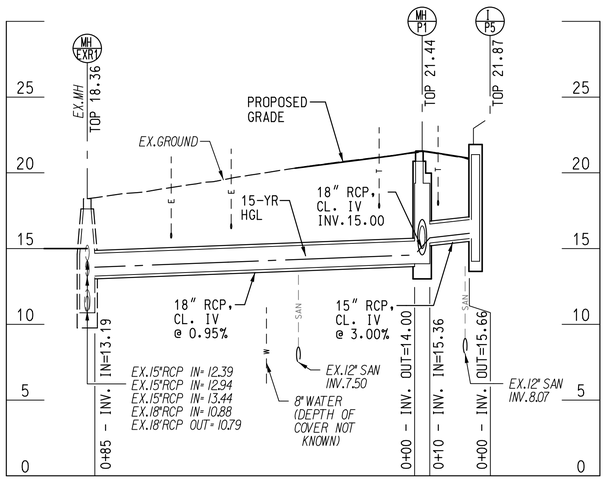
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

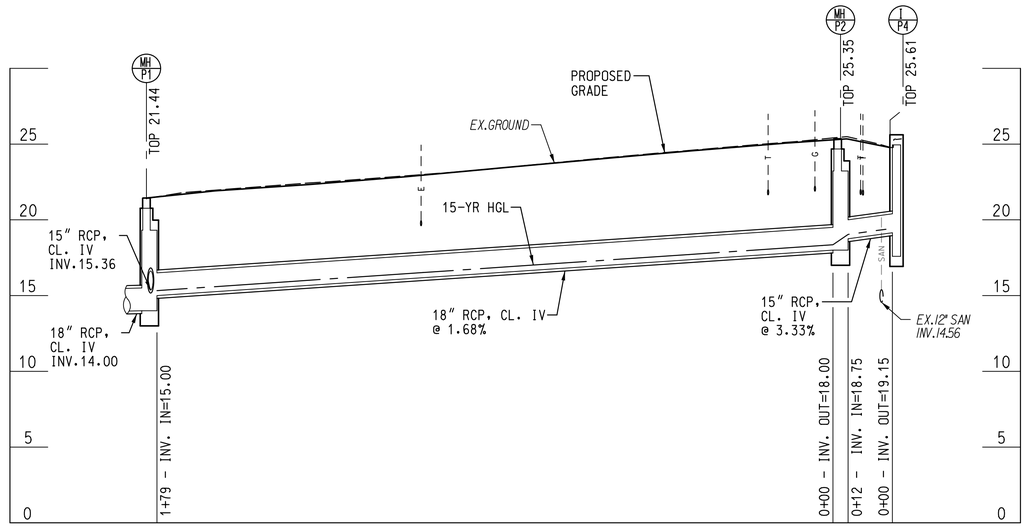
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Drainage\PSD-D011_ED08IA.dgn
Tuesday, September 25, 2018 AT 11:28 AM

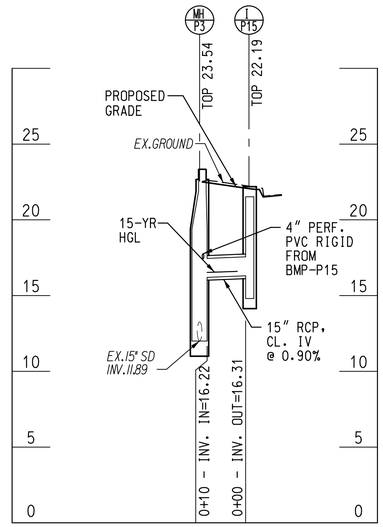
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	59	197



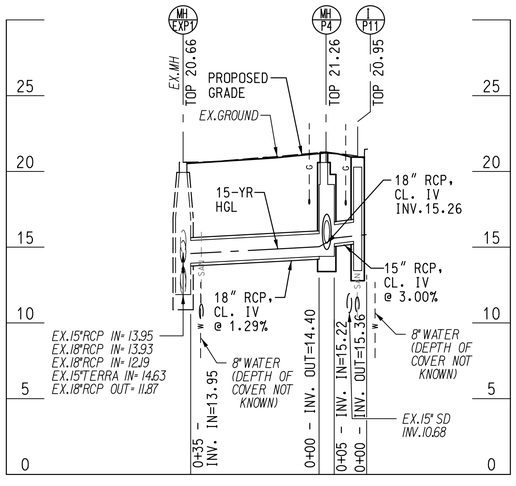
FROM MH-EXRI TO I-P5



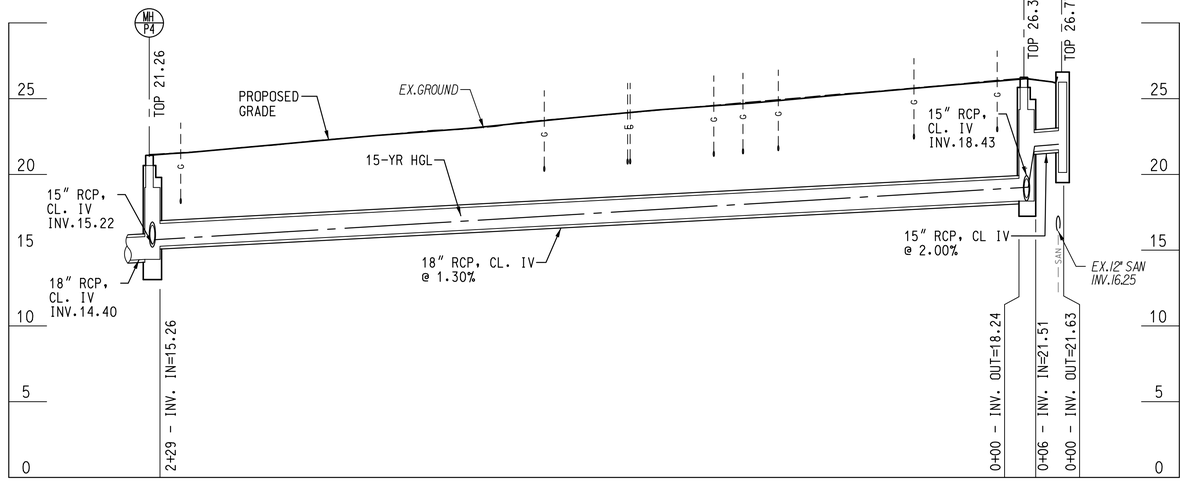
FROM MH-PI TO I-P4



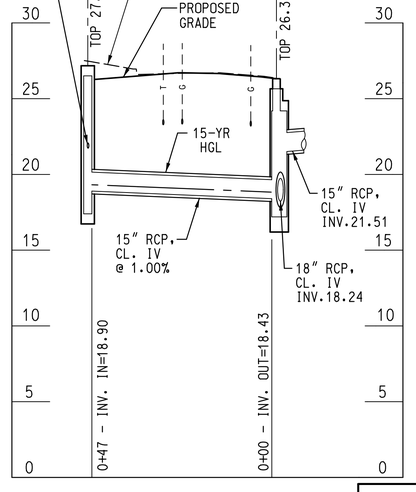
FROM MH-P3 TO I-PI5



FROM MH-EXPI TO I-PII



FROM MH-P4 TO I-PI0



FROM I-P20 TO MH-P5

DP-1

NOTES:

1. FOR PLAN VIEW SEE SHEETS SD-1 THRU SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. EXISTING UNDERGROUND UTILITIES (ELECTRICAL, TELEPHONE, AND GAS SERVICES) HAS BEEN SHOWN WITH 3' COVER. ACTUAL DEPTH NOT KNOWN. CONTRACTOR TO VERIFY IN THE FIELD.

HORIZ: 0 20 40 SCALE IN FEET

VERT: 0 5 10 SCALE IN FEET

DISTRICT OF COLUMBIA · IRWIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

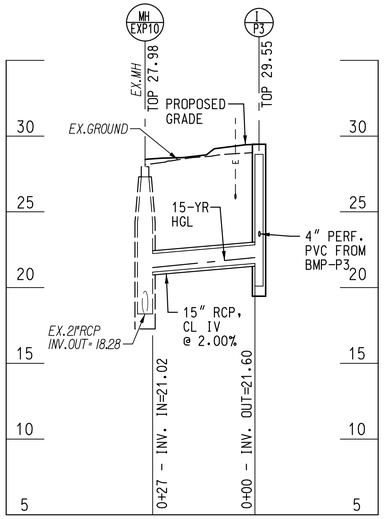
STORM DRAIN PROFILES – 1

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

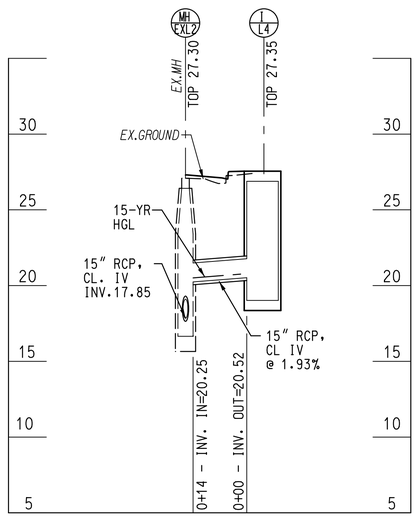
DIVISION CHIEF
DATE
FILE
DWG. 59 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Storm Profile\pDP-V001.EDOB|A.dgn
Tuesday, September 25, 2018 AT 11:29 AM

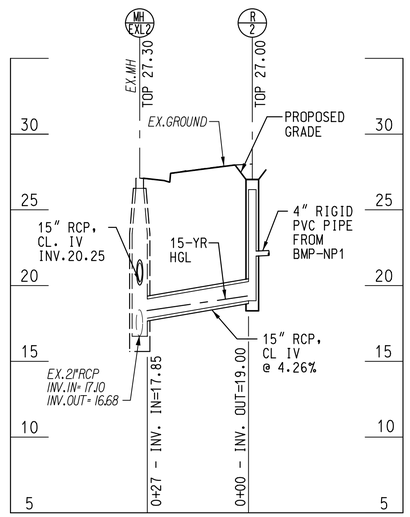
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	60	197



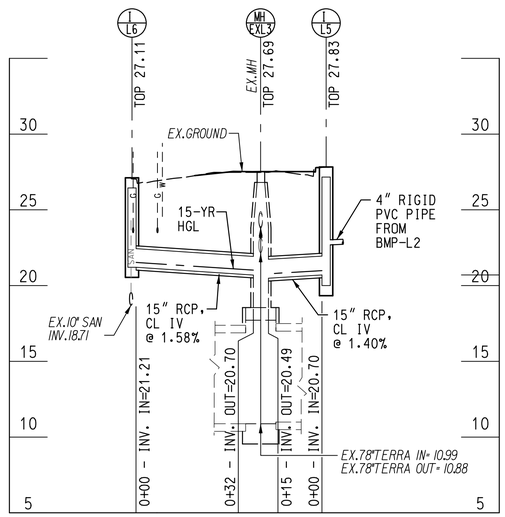
FROM MH-EXP10 TO I-P3



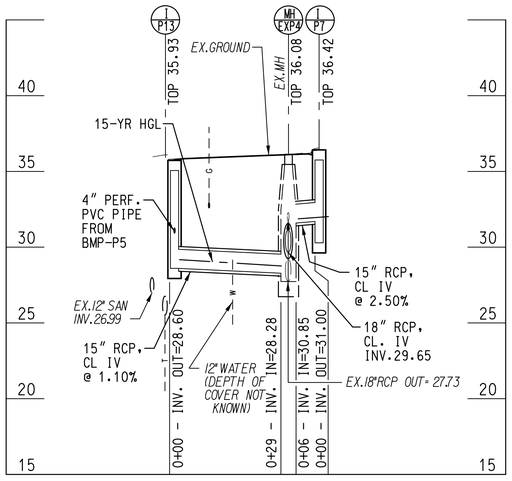
FROM MH-EXL2 TO I-L4



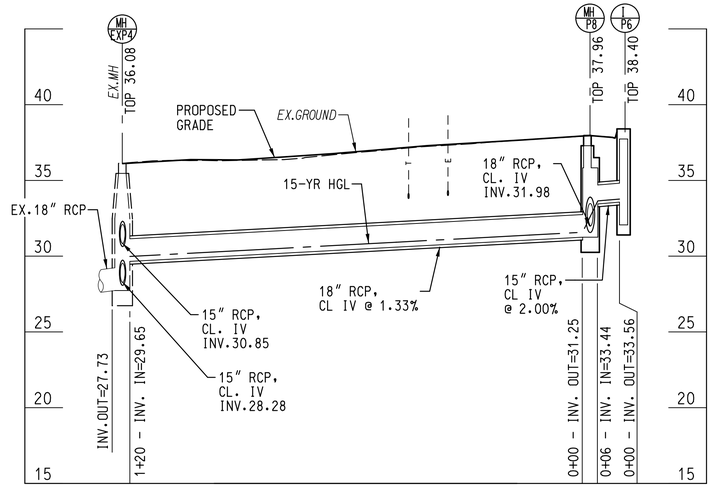
FROM MH-EXL2 TO R-2



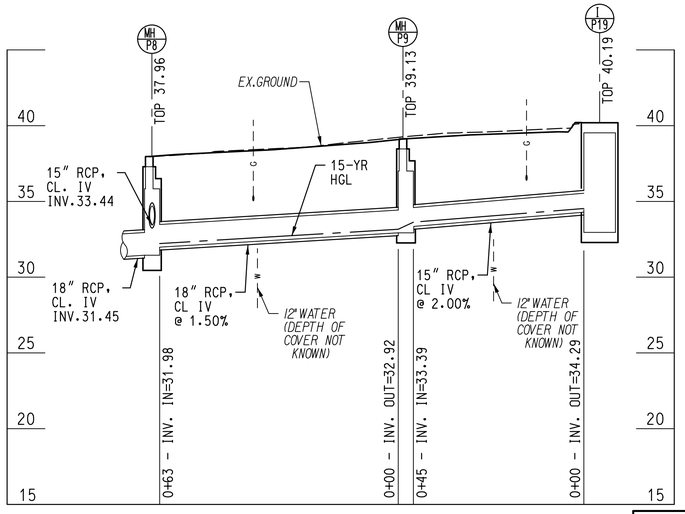
FROM I-L6 TO MH-EXL3 TO I-L5



FROM I-PI3 TO MH-EXP4 TO I-P7



FROM MH-EXP4 TO I-P6



FROM MH-P8 TO I-P19

NOTES:

1. FOR PLAN VIEW SEE SHEETS SD-1 THRU SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. EXISTING UNDERGROUND UTILITIES (ELECTRICAL, TELEPHONE, AND GAS SERVICES) HAS BEEN SHOWN WITH 3' COVER. ACTUAL DEPTH NOT KNOWN. CONTRACTOR TO VERIFY IN THE FIELD.

HORIZ: 0 20 40 SCALE IN FEET

VERT: 0 5 10 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

DP-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

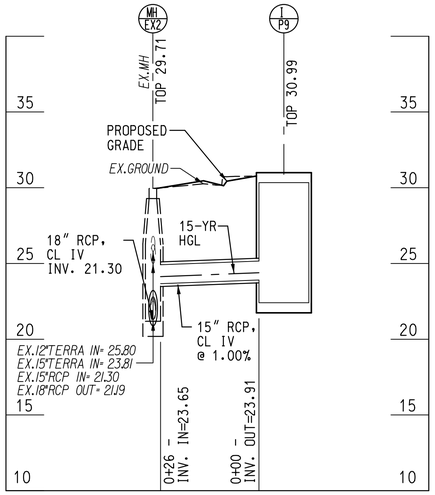
STORM DRAIN PROFILES – 2

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

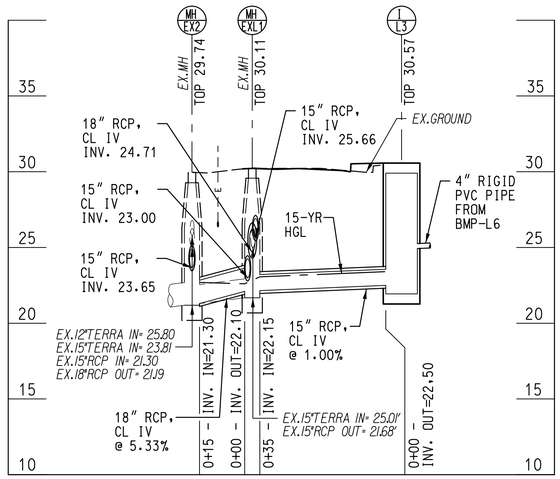
DIVISION CHIEF
DATE
FILE
DWG. 60 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Storm Profile\pDP-V002_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:29 AM

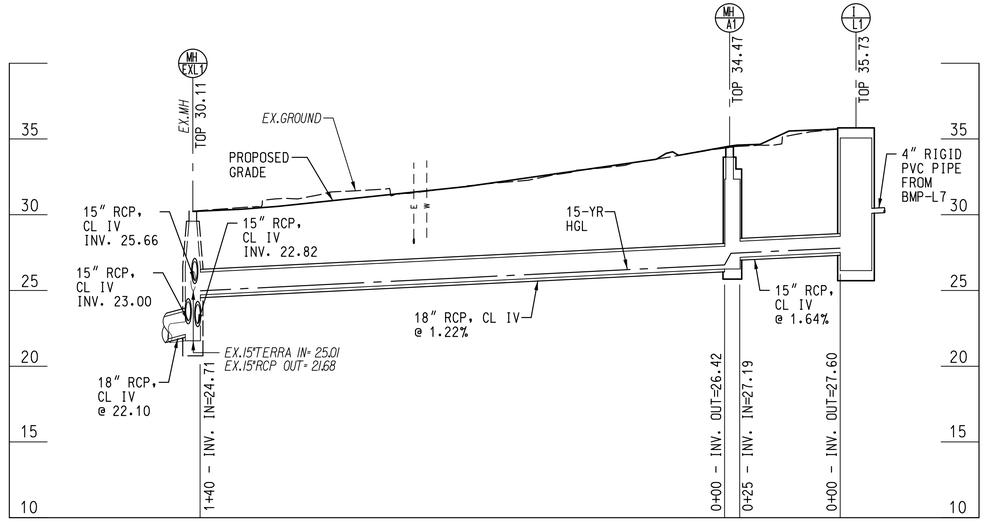
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	61	197



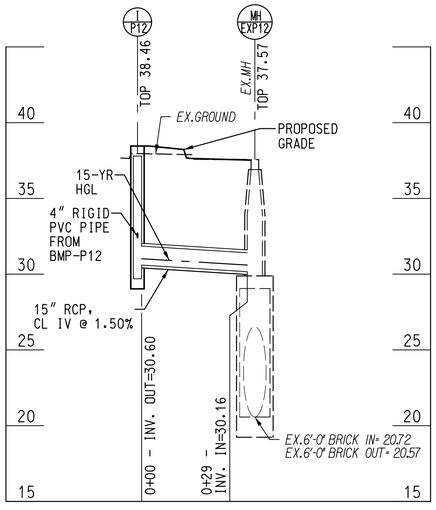
FROM TO MH-EX2 TO I-P9



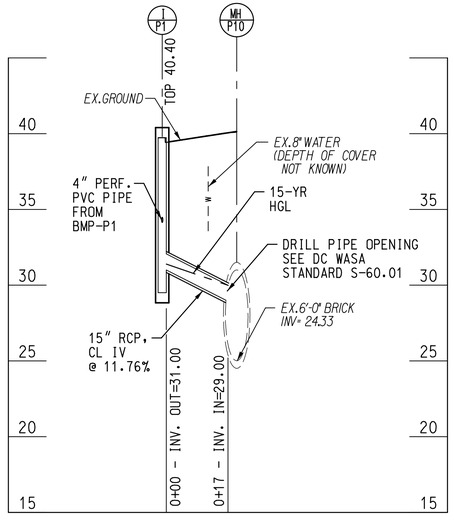
FROM MH-EX2 TO I-L3



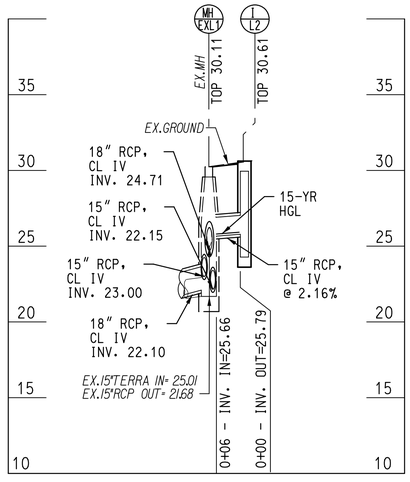
FROM MH-EXLI TO I-LI



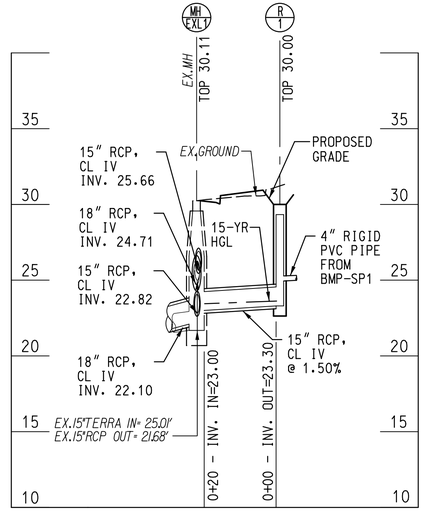
FROM I-PI2 TO MH-EXPI2



FROM I-PI TO 6-TRUNK



FROM MH-EXLI TO I-L2



FROM MH-EXLI TO R-I

NOTES:

1. FOR PLAN VIEW SEE SHEETS SD-1 THRU SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. EXISTING UNDERGROUND UTILITIES (ELECTRICAL, TELEPHONE, AND GAS SERVICES) HAS BEEN SHOWN WITH 3' COVER, ACTUAL DEPTH NOT KNOWN. CONTRACTOR TO VERIFY IN THE FIELD.

HORIZ: 0 20 40 SCALE IN FEET

VERT: 0 5 10 SCALE IN FEET

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Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

DP-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

STORM DRAIN PROFILES – 3

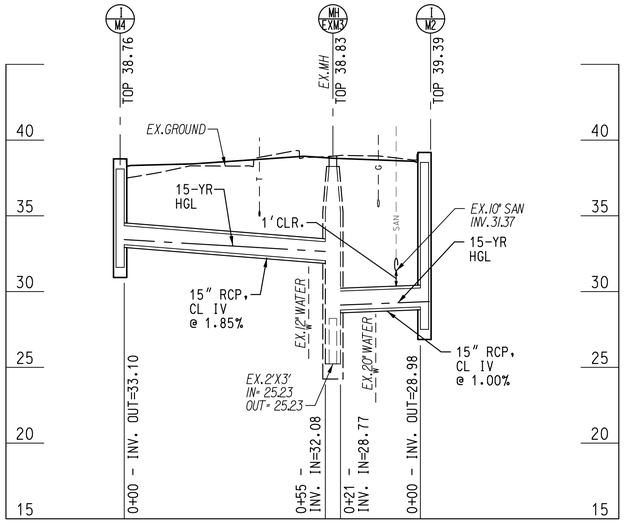
PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF

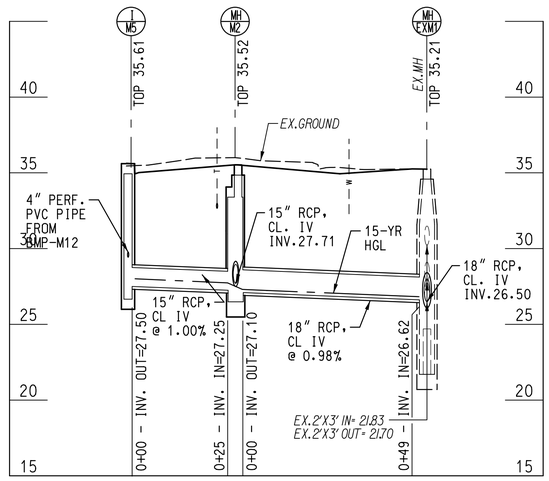
DATE
FILE
DWG. 61 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Storm Profile\pDP-V003.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:29 AM

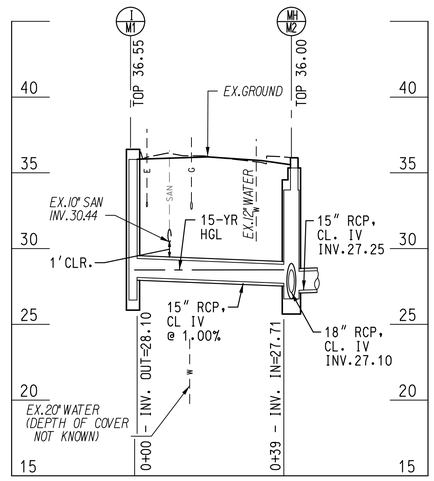
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	62	197



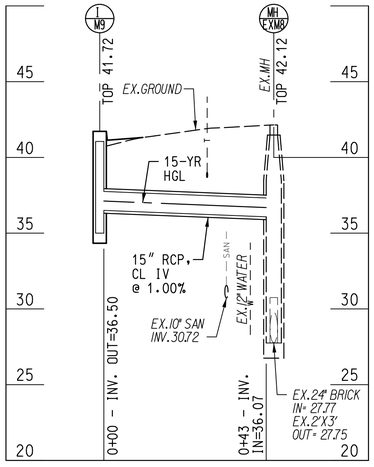
FROM I-M4 TO MH-EXM3 TO I-M2



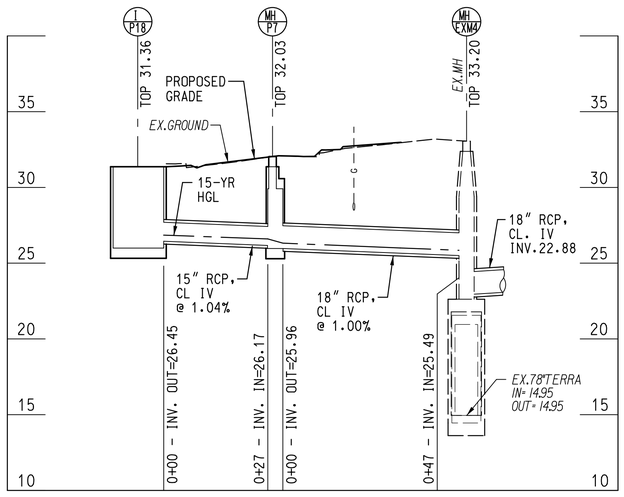
FROM MH-EXMI TO I-M5



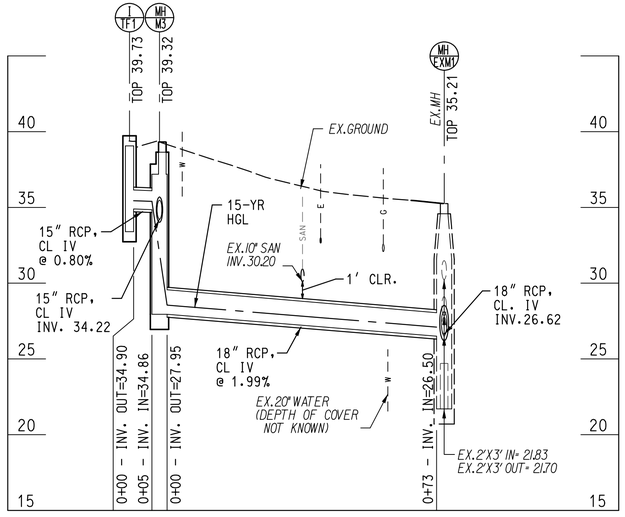
FROM MH-M2 TO I-MI



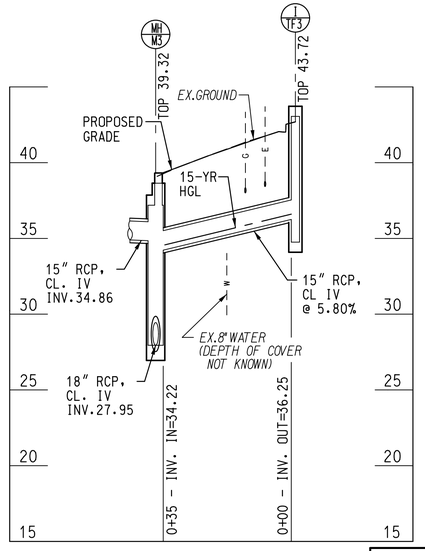
FROM I-M9 TO MH-EXM8



FROM I-PI8 TO MH-EXM4



FROM I-TFI TO MH-EXMI



FROM MH-M3 TO I-TF3

DP-4

NOTES:

1. FOR PLAN VIEW SEE SHEETS SD-1 THRU SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. EXISTING UNDERGROUND UTILITIES (ELECTRICAL, TELEPHONE, AND GAS SERVICES) HAS BEEN SHOWN WITH 3' COVER. ACTUAL DEPTH NOT KNOWN. CONTRACTOR TO VERIFY IN THE FIELD.

HORIZ: 0 20 40 SCALE IN FEET

VERT: 0 5 10 SCALE IN FEET

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

STORM DRAIN PROFILES – 4

DIVISION CHIEF
DATE
FILE
DWG. 62 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Storm Profile\pDP-V004.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:29 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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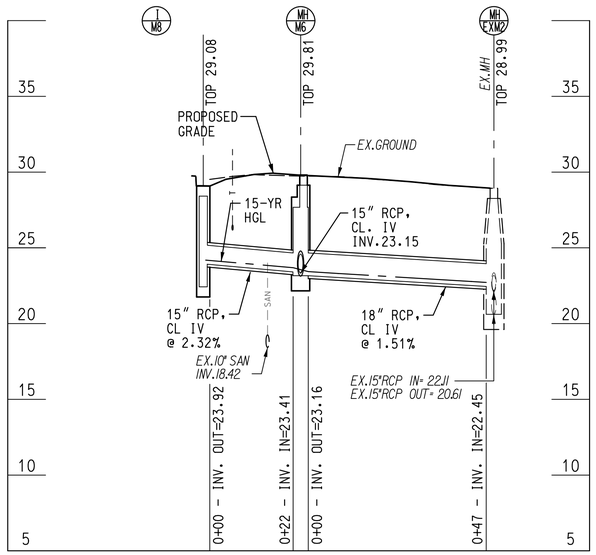
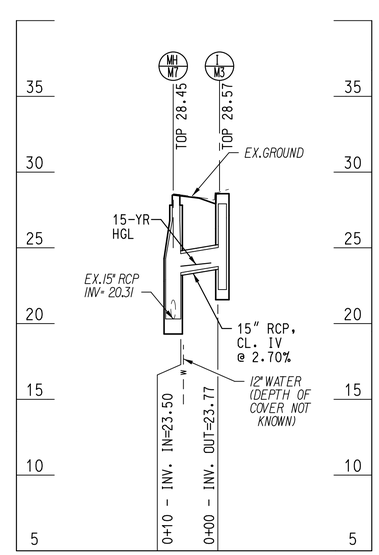
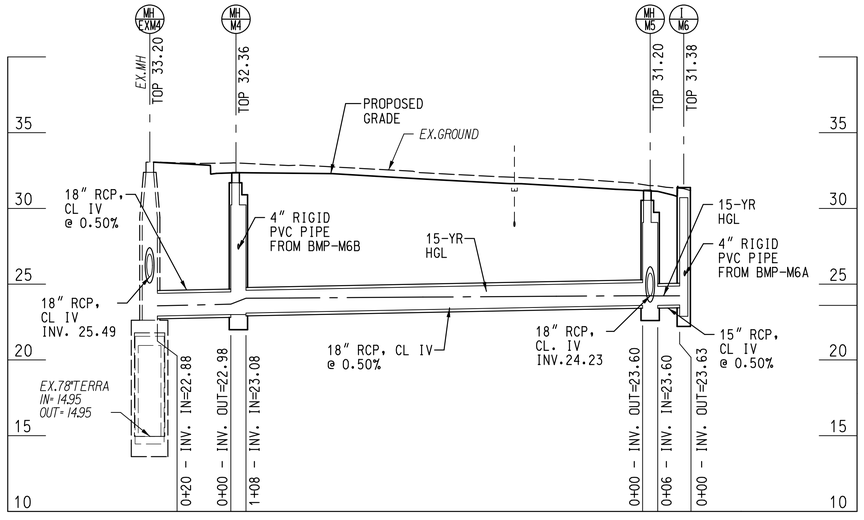


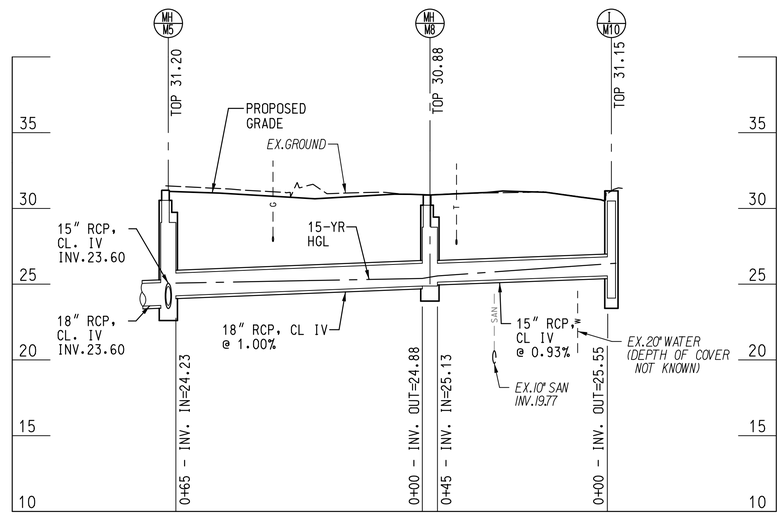
FROM I-M7 TO MH-M6 TO MH-EXM2



FROM MH-MH7 TO I-M3



FROM MH-EXM4 TO I-M6



FROM MH-M5 TO I-M10

NOTES:

1. FOR PLAN VIEW SEE SHEETS SD-1 THRU SD-5.
2. FOR STORM DRAINAGE STRUCTURE AND PIPE SCHEDULE, SEE SHEETS SD-6 AND SD-7.
3. EXISTING UNDERGROUND UTILITIES (ELECTRICAL, TELEPHONE, AND GAS SERVICES) HAS BEEN SHOWN WITH 3' COVER. ACTUAL DEPTH NOT KNOWN. CONTRACTOR TO VERIFY IN THE FIELD.

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DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

DP-5

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

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PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

STORM DRAIN PROFILES – 5

DIVISION CHIEF
DATE
FILE
DWG. 63 OF 197

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Tuesday, September 25, 2018 AT 11:29 AM

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STORMWATER BEST MANAGEMENT PRACTICES (BMPS)

TREE SPECIES SHOULD BE THOSE THAT ARE KNOWN TO SURVIVE WELL IN THE COMPACTED SOILS AND THE POLLUTED AIR AND WATER OF AN URBAN LANDSCAPE.

IF TREES ARE USED, PLANT SHADE-TOLERANT GROUND COVERS WITHIN THE DRIP LINE.

IF THE BIORETENTION AREA IS TO BE USED FOR SNOW STORAGE OR IS TO ACCEPT SNOWMELT RUNOFF, IT SHOULD BE PLANTED WITH SALT-TOLERANT, HERBACEOUS PERENNIALS.
3.6.6 BIORETENTION CONSTRUCTION SEQUENCE
SOIL EROSION AND SEDIMENT CONTROLS. THE FOLLOWING SOIL EROSION AND SEDIMENT CONTROL GUIDELINES MUST BE FOLLOWED DURING CONSTRUCTION:

ALL BIORETENTION AREAS MUST BE FULLY PROTECTED BY SILT FENCE OR CONSTRUCTION FENCING.

BIORETENTION AREAS INTENDED TO INFILTRATE RUNOFF MUST REMAIN OUTSIDE THE LIMIT OF DISTURBANCE DURING CONSTRUCTION TO PREVENT SOIL COMPACTION BY HEAVY EQUIPMENT AND LOSS OF DESIGN INFILTRATION RATE.

WHERE IT IS INFEASIBLE KEEP THE PROPOSED BIORETENTION AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE, THERE ARE SEVERAL POSSIBLE OUTCOMES FOR THE IMPACTED AREA. IF EXCAVATION IN THE PROPOSED BIORETENTION AREA CAN BE RESTRICTED THEN THE REMEDIATION CAN BE ACHIEVED WITH DEEP TILLING PRACTICES. THIS IS ONLY POSSIBLE IF IN-SITU SOILS ARE NOT DISTURBED ANY DEEPER THAN 2 FEET ABOVE THE FINAL DESIGN ELEVATION OF THE BOTTOM OF THE BIORETENTION. IN THIS CASE, WHEN HEAVY EQUIPMENT ACTIVITY HAS CEASED,
THE AREA IS EXCAVATED TO GRADE, AND THE IMPACTED AREA MUST BE TILLED TO A DEPTH OF 12 INCHES BELOW THE BOTTOM OF THE BIORETENTION.

ALTERNATIVELY, IF IT IS INFEASIBLE TO KEEP THE PROPOSED PERMEABLE PAVEMENT
AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE, AND EXCAVATION OF THE AREA CANNOT BE RESTRICTED, THEN INFILTRATION TESTS WILL BE REQUIRED PRIOR TO INSTALLATION OF THE BIORETENTION TO ENSURE THAT THE DESIGN INFILTRATION RATE IS STILL PRESENT. IF TESTS REVEAL THE LOSS OF DESIGN INFILTRATION RATES THEN DEEP TILLING PRACTICES MAY BE USED IN AN EFFORT TO RESTORE THOSE RATES. IN THIS CASE FURTHER TESTING MUST BE DONE TO ESTABLISH DESIGN RATES EXIST BEFORE THE PERMEABLE PAVEMENT CAN BE INSTALLED.

FINALLY, IF IT IS INFEASIBLE TO KEEP THE PROPOSED BIORETENTION AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE, AND EXCAVATION OF THE AREA CANNOT BE RESTRICTED, AND INFILTRATION TESTS REVEAL DESIGN RATES CANNOT BE RESTORED, THEN A RESUBMISSION OF THE SWMP WILL BE REQUIRED.

BIORETENTION AREAS MUST BE CLEARLY MARKED ON ALL CONSTRUCTION DOCUMENTS AND GRADING PLANS.

LARGE BIORETENTION APPLICATIONS MAY BE USED AS SMALL SEDIMENT TRAPS OR BASINS DURING CONSTRUCTION. HOWEVER, THESE MUST BE ACCOMPANIED BY NOTES AND GRAPHIC DETAILS ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN SPECIFYING THAT (1) THE MAXIMUM EXCAVATION DEPTH OF THE TRAP OR BASIN AT THE CONSTRUCTION STAGE MUST BE AT LEAST 1 FOOT HIGHER THAN THE POST-CONSTRUCTION (FINAL) INVERT (BOTTOM OF THE FACILITY), AND (2) THE FACILITY MUST CONTAIN AN UNDERDRAIN. THE PLAN MUST ALSO SHOW THE PROPER PROCEDURES FOR CONVERTING THE TEMPORARY SEDIMENT CONTROL PRACTICE TO A PERMANENT BIORETENTION BMP, INCLUDING DEWATERING, CLEANOUT, AND STABILIZATION.

BIORETENTION

BIORETENTION INSTALLATION. THE FOLLOWING IS A TYPICAL CONSTRUCTION SEQUENCE TO PROPERLY INSTALL A BIORETENTION BASIN. THE CONSTRUCTION SEQUENCE FOR MICRO-BIORETENTION IS MORE SIMPLIFIED. THESE STEPS MAY BE MODIFIED TO REFLECT DIFFERENT BIORETENTION APPLICATIONS OR EXPECTED SITE CONDITIONS:

STEP 1: STABILIZE DRAINAGE AREA. CONSTRUCTION OF THE BIORETENTION AREA MAY ONLY BEGIN AFTER THE ENTIRE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED WITH VEGETATION. IT MAY BE NECESSARY TO BLOCK CERTAIN CURB OR OTHER INLETS WHILE THE BIORETENTION AREA IS BEING CONSTRUCTED. THE PROPOSED SITE SHOULD BE CHECKED FOR EXISTING UTILITIES PRIOR TO ANY EXCAVATION.

STEP 2: PRECONSTRUCTION MEETING. THE DESIGNER, THE INSTALLER, AND DDOE INSPECTOR MUST HAVE A PRECONSTRUCTION MEETING, CHECKING THE BOUNDARIES OF THE CONTRIBUTING DRAINAGE AREA AND THE ACTUAL INLET ELEVATIONS TO ENSURE THEY CONFORM TO ORIGINAL DESIGN. SINCE OTHER CONTRACTORS MAY BE RESPONSIBLE FOR CONSTRUCTING PORTIONS OF THE SITE, IT IS QUITE COMMON TO FIND SUBTLE DIFFERENCES IN SITE GRADING, DRAINAGE AND PAVING ELEVATIONS THAT CAN PRODUCE HYDRAULICALLY IMPORTANT DIFFERENCES FOR THE PROPOSED BIORETENTION AREA. THE DESIGNER SHOULD CLEARLY COMMUNICATE, IN WRITING, ANY PROJECT CHANGES DETERMINED DURING THE PRECONSTRUCTION MEETING TO THE INSTALLER AND THE INSPECTOR. MATERIAL CERTIFICATIONS FOR AGGREGATE, SOIL MEDIA AND ANY GEOTEXTILES MUST BE SUBMITTED FOR APPROVAL TO THE INSPECTOR AT THE PRECONSTRUCTION MEETING.

STEP 3: INSTALL SOIL EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE BIORETENTION. TEMPORARY SOIL EROSION AND SEDIMENT CONTROLS (E.G., DIVERSION DIKES, REINFORCED SILT FENCES) ARE NEEDED DURING CONSTRUCTION OF THE BIORETENTION AREA TO DIVERT STORMWATER AWAY FROM THE BIORETENTION AREA UNTIL IT IS COMPLETED. SPECIAL PROTECTION MEASURES, SUCH AS EROSION CONTROL FABRICS, MAY BE NEEDED TO PROTECT VULNERABLE SIDE SLOPES FROM EROSION DURING THE CONSTRUCTION PROCESS.

STEP 4: INSTALL PRETREATMENT CELLS. ANY PRETREATMENT CELLS SHOULD BE EXCAVATED FIRST AND THEN SEALED TO TRAP SEDIMENT.

STEP 5: AVOID IMPACT OF HEAVY INSTALLATION EQUIPMENT. EXCAVATORS OR BACKHOES SHOULD WORK FROM THE SIDES TO EXCAVATE THE BIORETENTION AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS. EXCAVATING EQUIPMENT SHOULD HAVE SCOOPS WITH ADEQUATE REACH SO THEY DO NOT HAVE TO SIT INSIDE THE FOOTPRINT OF THE BIORETENTION AREA. CONTRACTORS SHOULD USE A CELL CONSTRUCTION APPROACH IN LARGER BIORETENTION BASINS, WHEREBY THE BASIN IS SPLIT INTO 500- TO 1,000-SQUARE FOOT TEMPORARY CELLS WITH A 10- TO15-FOOT EARTH BRIDGE IN BETWEEN, SO THAT CELLS CAN BE EXCAVATED FROM THE SIDE.

STEP 6: PROMOTE INFILTRATION RATE. IT MAY BE NECESSARY TO RIP THE BOTTOM SOILS TO A DEPTH OF 6 TO 12 INCHES TO PROMOTE GREATER INFILTRATION.

STEP 7: ORDER OF MATERIALS. IF USING A GEOTEXTILE FABRIC, PLACE THE FABRIC ON THE SIDES OF THE BIORETENTION AREA WITH A 6-INCH OVERLAP ON THE SIDES. IF A STONE STORAGE LAYER WILL BE USED, PLACE THE APPROPRIATE DEPTH OF NO. 57 STONE (CLEAN DOUBLE WASHED) ON THE BOTTOM, INSTALL THE PERFORATED UNDERDRAIN PIPE, PACK NO. 57 STONE TO 3 INCHES ABOVE THE UNDERDRAIN PIPE, AND ADD THE CHOKING LAYER OR APPROPRIATE GEOTEXTILE LAYER AS A FILTER BETWEEN THE UNDERDRAIN AND THE SOIL MEDIA LAYER. IF NO STONE STORAGE LAYER IS USED, START WITH 6 INCHES OF NO. 57 STONE ON THE BOTTOM AND PROCEED WITH THE LAYERING AS DESCRIBED ABOVE.

STEP 8: LAYERED INSTALLATION OF MEDIA. APPLY THE MEDIA IN 12-INCH LIFTS UNTIL THE DESIRED TOP ELEVATION OF THE BIORETENTION AREA IS ACHIEVED. WAIT A FEW DAYS TO CHECK FOR SETTLEMENT AND ADD ADDITIONAL MEDIA, AS NEEDED, TO ACHIEVE THE DESIGN ELEVATION.

STORMWATER BEST MANAGEMENT PRACTICES (BMPS)

NOTE: THE BATCH RECEIPT CONFIRMING THE SOURCE OF THE SOIL MEDIA MUST BE SUBMITTED TO THE DDOE INSPECTOR.

STEP 9: PREPARE FILTER MEDIA FOR PLANTS. PREPARE PLANTING HOLES FOR ANY TREES AND SHRUBS, INSTALL THE VEGETATION, AND WATER ACCORDINGLY. INSTALL ANY TEMPORARY IRRIGATION.

STEP 10: PLANTING. INSTALL THE PLANT MATERIALS AS SHOWN IN THE LANDSCAPING PLAN, AND WATER THEM AS NEEDED.

STEP 11: SECURE SURFACE AREA. PLACE THE SURFACE COVER (I.E., MULCH, RIVER STONE, OR TURF) IN BOTH CELLS, DEPENDING ON THE DESIGN. IF COIR OR JUTE MATTING WILL BE USED IN LIEU OF MULCH, THE MATTING WILL NEED TO BE INSTALLED PRIOR TO PLANTING (STEP 10), AND HOLES OR SLITS WILL HAVE TO BE CUT IN THE MATTING TO INSTALL THE PLANTS.

STEP 12: INFLOWS. IF CURB CUTS OR INLETS ARE BLOCKED DURING BIORETENTION INSTALLATION, UNBLOCK THESE AFTER THE DRAINAGE AREA AND SIDE SLOPES HAVE GOOD VEGETATIVE COVER. IT IS RECOMMENDED THAT UNBLOCKING CURB CUTS AND INLETS TAKE PLACE AFTER TWO TO THREE STORM EVENTS IF THE DRAINAGE AREA INCLUDES NEWLY INSTALLED ASPHALT, SINCE NEW ASPHALT TENDS TO PRODUCE A LOT OF FINES AND GRIT DURING THE FIRST SEVERAL STORMS.

STEP 13: FINAL INSPECTION. CONDUCT THE FINAL CONSTRUCTION INSPECTION USING A QUALIFIED PROFESSIONAL, PROVIDING DDOE WITH AN AS-BUILT, THEN LOG THE GPS COORDINATES FOR EACH BIORETENTION FACILITY, AND SUBMIT THEM FOR ENTRY INTO THE MAINTENANCE TRACKING DATABASE.

TYPICAL MAINTENANCE TASKS FOR BIORETENTION PRACTICES

FREQUENCY	MAINTENANCE TASKS
UPUN ESTABLISHEMENT	■ FOR THE FIRST 6 MONTHS FOLLOWING CONSTRUCTION, THE PRACTICE AND CDA SHOULD BE INSPECTED AT LEAST TWICE AFTER STORM EVENTS THAT EXCEED 1/2 INCH OF RAINFALL. CONDUCT ANY NEEDED REPAIRS OR STABILIZATION. ■ INSPECTORS SHOULD LOOK FOR BARE OR ERODING AREAS IN THE CONTRIBUTING DRAINAGE AREA OR AROUND THE BIORETENTION AREA, AND MAKE SURE THEY ARE IMMEDIATELY STABILIZED WITH GRASS COVER. ■ ONE-TIME, SPOT FERTILIZATION MAY BE NEEDED FOR INITIAL PLANTINGS. ■ WATERING IS NEEDED ONCE A WEEK DURING THE FIRST 2 MONTHS, AND THEN AS NEEDED DURING FIRST GROWING SEASON (APRIL-OCTOBER), DEPENDING ON RAINFALL. ■ REMOVE AND REPLACE DEAD PLANTS. UP TO 10% OF THE PLANT STOCK MAY DIE OFF IN THE FIRST YEAR, SO CONSTRUCTION CONTRACTS SHOULD INCLUDE A CARE AND REPLACEMENT WARRANTY TO ENSURE THAT VEGETATION IS PROPERLY ESTABLISHED AND SURVIVES DURING THE FIRST GROWING SEASON FOLLOWING CONSTRUCTION.
AT LEAST 4 TIMES PER YEAR	■ MOW GRASS FILTER STRIPS AND BIORETENTION WITH TURF COVER CHECK CURB ■ CUTS AND INLETS FOR ACCUMULATED GRIT, LEAVES, AND DEBRIS THAT MAY BLOCK INFLOW
TWICE DURING GROWING SEASON	SPOT WEED, REMOVE TRASH, AND RAKE THE MULCH
ANNUALLY	■ CONDUCT A MAINTENANCE INSPECTION ■ SUPPLEMENT MULCH IN DEVOID AREAS TO MAINTAIN A 3 INCH LAYER ■ PRUNE TREES AND SHRUBS ■ REMOVE SEDIMENT IN PRETREATMENT CELLS AND INFLOW POINTS
ONCE EVERY 2-3 YEARS	REMOVE SEDIMENT IN PRETREATMENT CELLS AND INFLOW POINTS REMOVE AND REPLACE THE MULCH LAYER
AS NEEDED	ADD REINFORCEMENT PLANTING TO MAINTAIN DESIRED VEGETATION DENSITY ■ REMOVE INVASIVE PLANTS USING RECOMMENDED CONTROL METHODS ■ REMOVE ANY DEAD OR DISEASED PLANTS ■ STABILIZE THE CONTRIBUTING DRAINAGE AREA TO PREVENT EROSION

STANDING WATER IS THE MOST COMMON PROBLEM OUTSIDE OF ROUTINE MAINTENANCE. IF WATER REMAINS ON THE SURFACE FOR MORE THAN 72 HOURS AFTER A STORM, ADJUSTMENTS TO THE GRADING MAY BE NEEDED OR UNDERDRAIN REPAIRS MAY BE NEEDED. THE SURFACE OF THE FILTER BED SHOULD ALSO BE CHECKED FOR ACCUMULATED SEDIMENT OR A FINE CRUST THAT BUILDS UP AFTER THE FIRST SEVERAL STORM EVENTS. THERE ARE SEVERAL METHODS THAT CAN BE USED TO REHABILITATE THE FILTER. THESE ARE LISTED BELOW, STARTING WITH THE SIMPLEST APPROACH AND RANGING TO MORE INVOLVED PROCEDURES (I.E., IF THE SIMPLER ACTIONS DO NOT SOLVE THE PROBLEM):

■ OPEN THE UNDERDRAIN OBSERVATION WELL OR CLEANOUT AND POUR IN WATER TO VERIFY THAT THE UNDERDRAINS ARE FUNCTIONING AND NOT CLOGGED OR OTHERWISE IN NEED OF REPAIR. THE PURPOSE OF THIS CHECK IS TO SEE IF THERE IS STANDING WATER ALL THE WAY DOWN THROUGH THE SOIL. IF THERE IS STANDING WATER ON TOP, BUT NOT IN THE UNDERDRAIN, THEN THERE IS A CLOGGED SOIL LAYER. IF THE UNDERDRAIN AND STAND PIPE INDICATES STANDING WATER, THEN THE UNDERDRAIN MUST BE CLOGGED AND WILL NEED TO BE CLEANED OUT.

■ REMOVE ACCUMULATED SEDIMENT AND TILL 2 TO 3 INCHES OF SAND INTO THE UPPER 6 TO 12 INCHES OF SOIL

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

SW-1

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT ADMINISTRATION
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STORM WATER MANAGEMENT NOTES–1

PROJECT ENG. C. C.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
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NO	DESCRIPTION	NAME	DATE

REVISIONS

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Table 3.20 Filter Media Criteria for Bioretention

Soil Media Criterion	Description	Standard(s)		
General Composition	Soil media must have the proper proportions of sand, fines, and organic matter to promote plant growth, drain at the proper rate, and filter pollutants	80% to 90% sand (75% of which is coarse or very coarse); 10% to 20% soil fines; maximum of 10% clay; and 3% to 5% organic matter		
Sand	Silica based coarse aggregate[1]	**Sieve Type** 3/8 in. No. 4 No. 8 No. 16 No. 30 No. 50 No. 100	**Particle Size (mm)** 9.50 4.75 2.36 1.18 0.6 0.3 0.15	**Percent Passing (%)** 100 95–100 80–100 45–85 15–60 3–15 0–4
		Effective Particle size (D10) > 0.3mm Uniformity Coefficient (D60/D10) < 4.0		
Top Soil	Loamy sand or sandy loam	USDA Textural Triangle		
Organic Matter	Well-aged, clean compost	Appendix J		
P-Index or Phosphorus (P) Content	Soil media with high P levels will export P through the media and potentially to downstream conveyances or receiving waters	P content = 5 to 15 mg/kg (Mehlich I) or 18 to 40 mg/kg (Mehlich III)		
Cation Exchange Capacity (CEC)	The CEC is determined by the amount of soil fines and organic matter. Higher CEC will promote pollutant removal	CEC > 5 milliequivalents per 100 grams		

[1]Many specifications for sand refer to ASTM C-33. The ASTM C-33 specification allows a particle size distribution that contains a large fraction of fines (silt and clay sized particles< 0.05 mm). The smaller fines fill the voids between the larger sand sized particles, resulting in smaller and more convoluted pore spaces. While this condition provides a high degree of treatment, it also encourages clogging of the remaining void spaces with suspended solids and biological growth, resulting in a greater chance of a restrictive biomat forming. By limiting the fine particles allowed in the sand component, the combined media recipe of sand and the fines associated with the soil and organic material will be less prone to clogging, while also providing an adequate level of filtration and retention.

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 first two months for fourteen consecutive days after planting has been completed , then as needed during first growing season.?				
Observation Well 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" +/- ___ 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 _____

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DISTRICT DEPARTMENT OF THE ENVIRONMENT

Open Channel System Construction Inspection Report

Building Permit #: _____ Plan and File#: _____ Lot: _____ Square: _____

Project Name and Address: _____Ward_____

Contractor: _____ Telephone: _____

Engineer: _____ Telephone: _____

Responsible for Maintenance: _____ Telephone: _____

Open Channel System Type: Grass Channel _____ Dry Swale _____ Wet Swale _____ Other _____

Date Started: _____ Final Inspection Date: _____ As-Built Plan Due Date: _____

Inspection Items	Yes	No	Remarks	Date
Site Preparation:				
Have erosion and sediment controls been properly installed and maintained according to approved plans?				
Is stormwater runoff being diverted around the practice?				
Has the contributing drainage area been fully stabilized?				
Practice Geometry:				
Are the practice dimensions and longitudinal slope correct as shown on the plans?				
Are the channel side slopes no steeper than 3:1?				
Have the check dams been properly installed and to the correct elevations (where applicable)?				
Pretreatment:				
Are the pretreatment facilities installed according to the approved plans?				
Vegetation:				
Does the channel surface vegetation comply with the approved planting plan and specification?				
Topsoil mixture, soil amendments, and soil compaction comply with plan (if required)				
Over Flow (where Applicable):				
Is overflow invert at correct elevation?				
Has the outfall been constructed with adequate protection as specified on the plans?				

SW-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

STORM WATER MANAGEMENT NOTES–2

PROJECT ENG. C. C.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 65 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P002_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:29 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	66	197

BMP ID	Drainage Area	BMP Type	BMP Surface Area (sf)	BMP DESIGN			Total Storage Volume (cf)	SWRv Provided (cf)	SWRv Achieved (cf)
				Depth of Ponding (ft)	Depth of Filter Media (ft)	Depth of Gravel (ft)			
BMP-P1	DA-P1	Standard Bioretention	277	1.00	3.00	1.00	660	396	396
BMP-P12	DA-P12	Standard Bioretention	226	1.00	3.00	1.00	509	305	305
BMP-P13	DA-P13	Standard Bioretention	335	1.00	3.00	1.00	754	452	450
BMP-P15	DA-P15	Standard Bioretention	652	1.00	2.00	1.00	1304	782	782
BMP-P3	DA-P3	Standard Bioretention	207	1.00	3.00	1.00	466	279	279
BMP-P20	DA-P20	Standard Bioretention	600	1.00	3.00	1.00	1350	810	738
BMP-M5	DA-M5	Standard Bioretention	424	1.00	3.00	1.00	954	572	572
BMP-M6	DA-M6	Standard Bioretention	575	1.00	3.00	1.00	1294	776	776
BMP-L1	DA-L1	Standard Bioretention	87	1.00	3.00	1.00	196	117	117
BMP-L3	DA-L3	Standard Bioretention	230	1.00	3.00	1.00	518	311	311
BMP-L4	DA-L4	Standard Bioretention	552	1.00	2.00	1.00	1104	662	655
BMP-L5	DA-L5	Standard Bioretention	759	1.00	2.00	1.00	1518	911	911
BMP-NP1*	DA-NP1	Standard Bioretention	1870	1.00	2.50	1.00	3974	2384	1947
BMP-SP1*	DA-SP1	Standard Bioretention	421	1.00	3.00	1.00	947	568	568
BMP-NP2	DA-NP2	Permeable interlocking paver	11725			1.00	4104	528	528
BMP-SP2	DA-SP2	Permeable interlocking paver	5333			1.00	1867	240	240
TOTAL			**24273**						**9575**

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P003.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:29 AM

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SW-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. C. C.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

SWM – BMP DESIGN SUMMARY TABLE

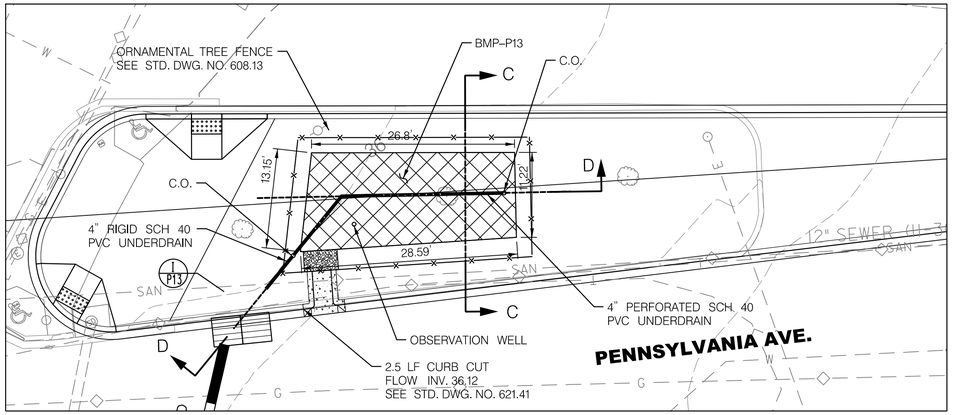
DIVISION CHIEF
DATE
FILE
DWG. 66 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

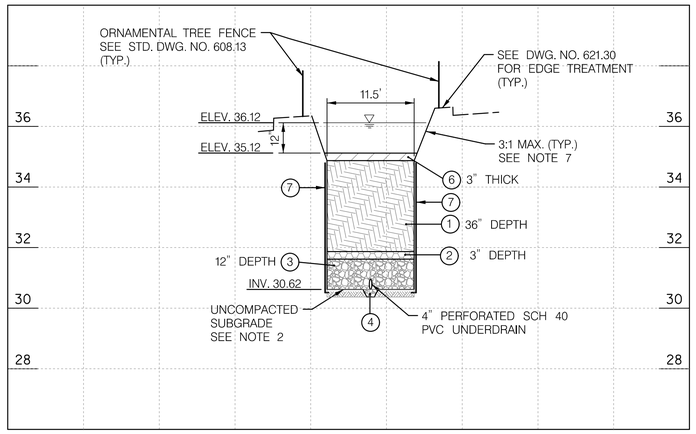
NO	DESCRIPTION	NAME	DATE

REVISIONS

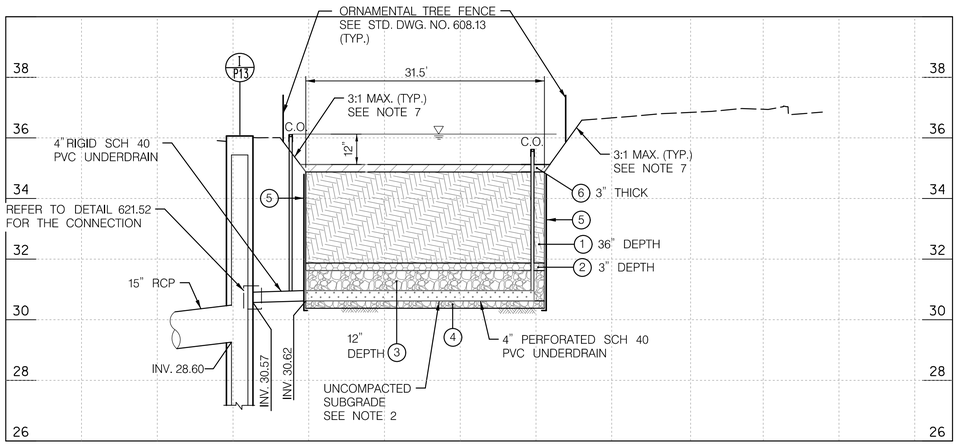
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	67	197



BMP–P13
PLAN VIEW
SCALE: 1" = 10'



SECTION C-C
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION D-D
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

LEGEND:

1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32
4. TREES AND PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN PLANS.
5. BOTTOM OF BIORETENTION SHALL BE AT 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
6. OUTLET REQUIRED AS SPECIFIED BY PLANS.
7. SIDE SLOPE STEEPER THAN 3:1 MAY BE ALLOWED: HOWEVER, MUST BE STABILIZED IN ACCORDANCE WITH DDOT DESIGN REQUIREMENTS. MINIMUM 12" PLANT BED SOIL SHALL BE PROVIDED UNDER THE SLOPE.

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

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

SW-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 67 OF 197

BIORETENTION PLAN & SECTIONS
BMP–P13

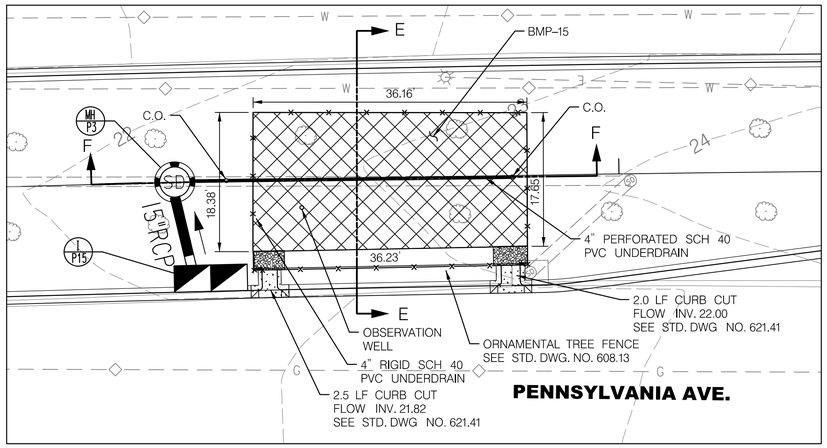
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

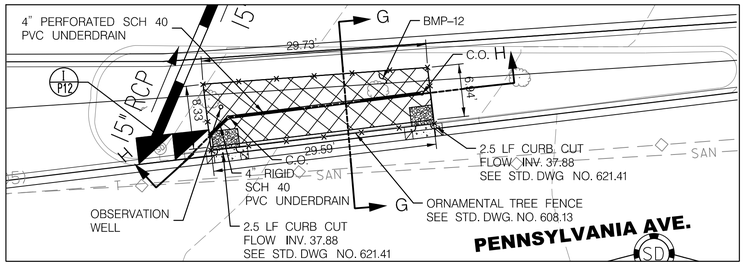
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P004_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

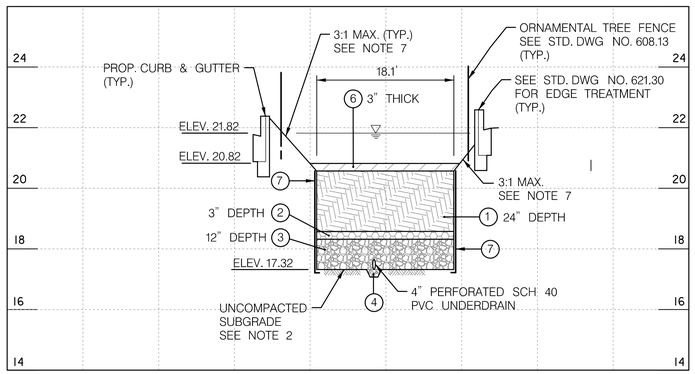
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	68	197



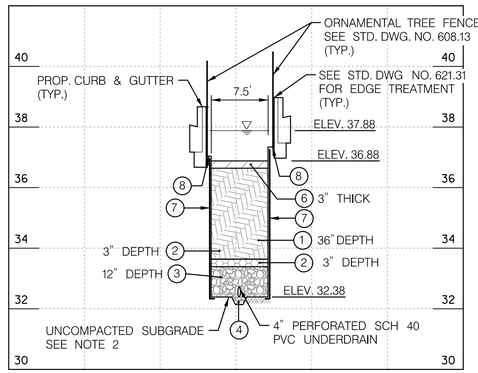
BMP–P15
PLAN VIEW
SCALE: 1" = 10'



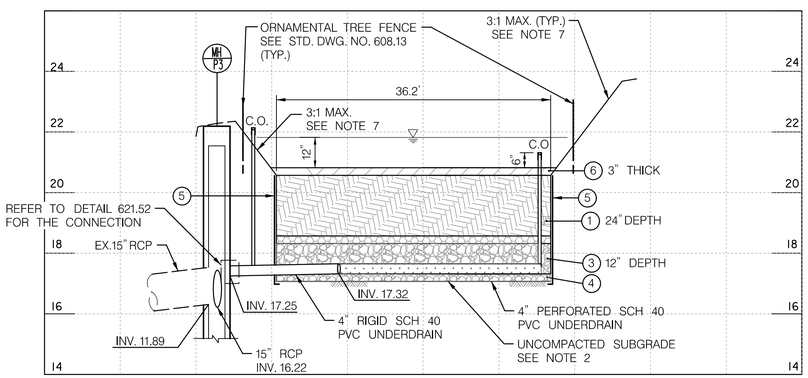
BMP–P12
PLAN VIEW
SCALE: 1" = 10'



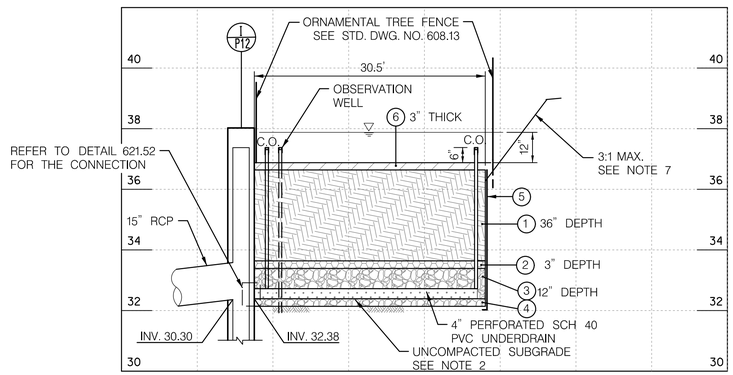
SECTION E-E
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION G-G
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION F-F
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION H-H
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

LEGEND:

1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32
4. TREES AND PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN PLANS.
5. BOTTOM OF BIORETENTION SHALL BE AT 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
6. OUTLET REQUIRED AS SPECIFIED BY PLANS.
7. SIDE SLOPE STEEPER THAN 3:1 MAY BE ALLOWED: HOWEVER, MUST BE STABILIZED IN ACCORDANCE WITH DDOT DESIGN REQUIREMENTS. MINIMUM 12" PLANT BED SOIL SHALL BE PROVIDED UNDER THE SLOPE.

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SW-5

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

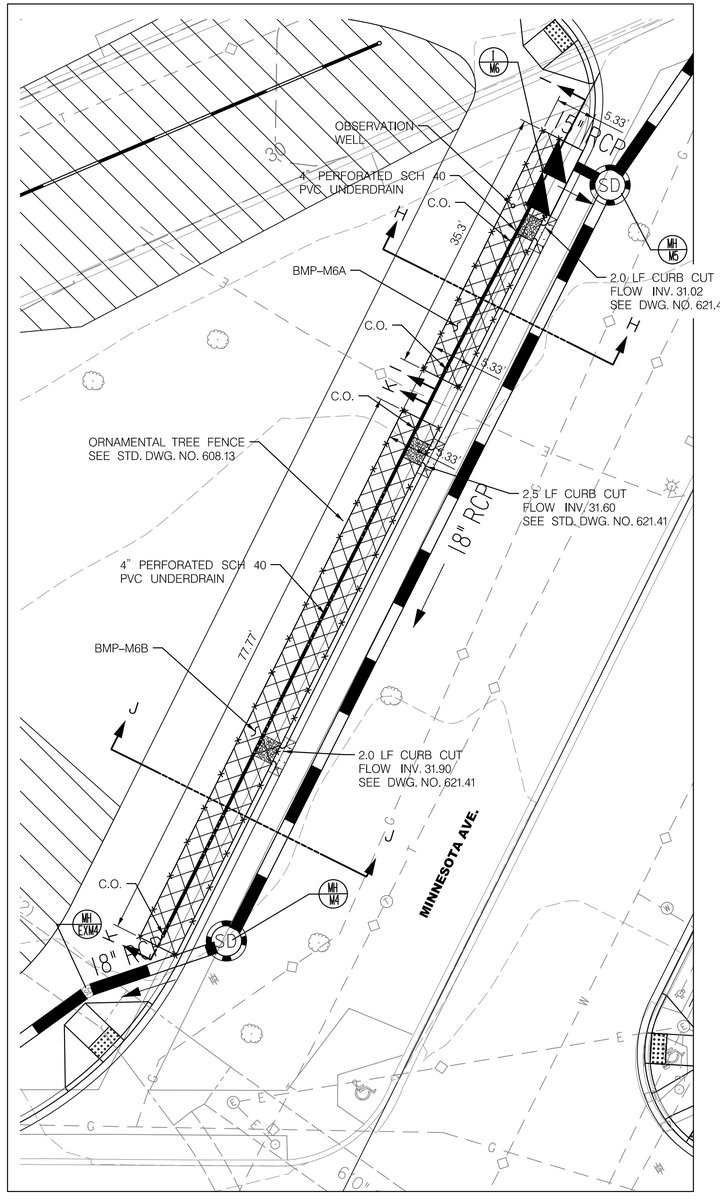
PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

BIORETENTION PLAN & SECTIONS
BMP–P12 AND BMP–P15

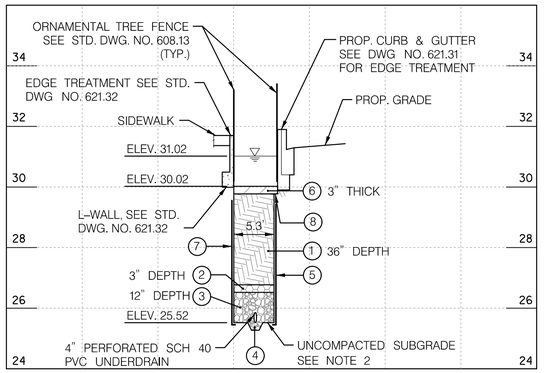
DIVISION CHIEF
DATE
FILE
DWG. 68 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P005_ED0BIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

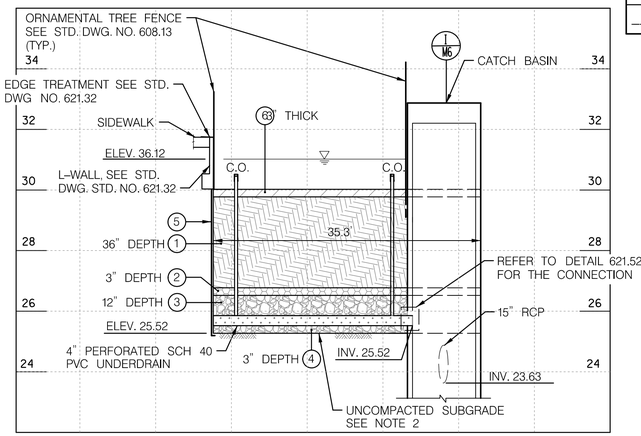
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	69	197



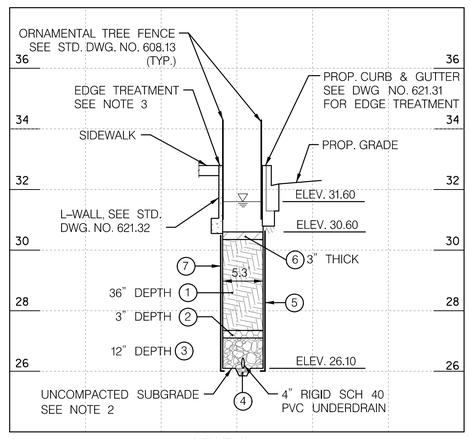
BMP-M6
PLAN VIEW
SCALE: 1" = 10'



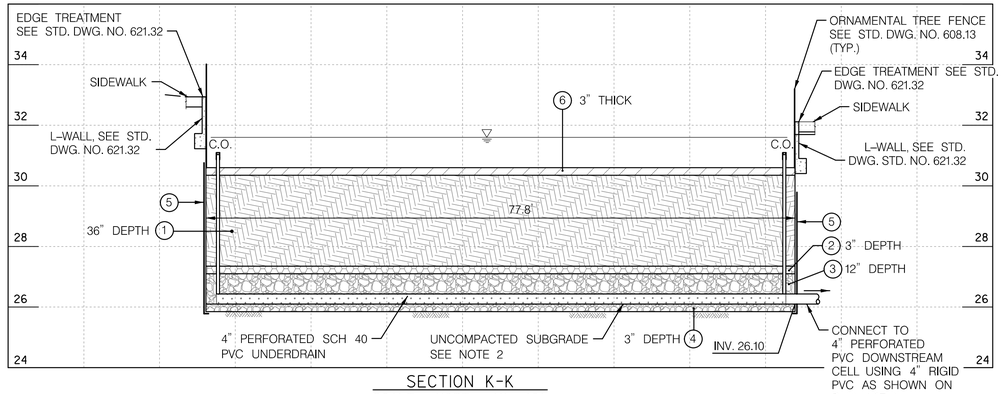
SECTION H-H
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION I-I
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION J-J
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION K-K
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

LEGEND:

1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32
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SW-6

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

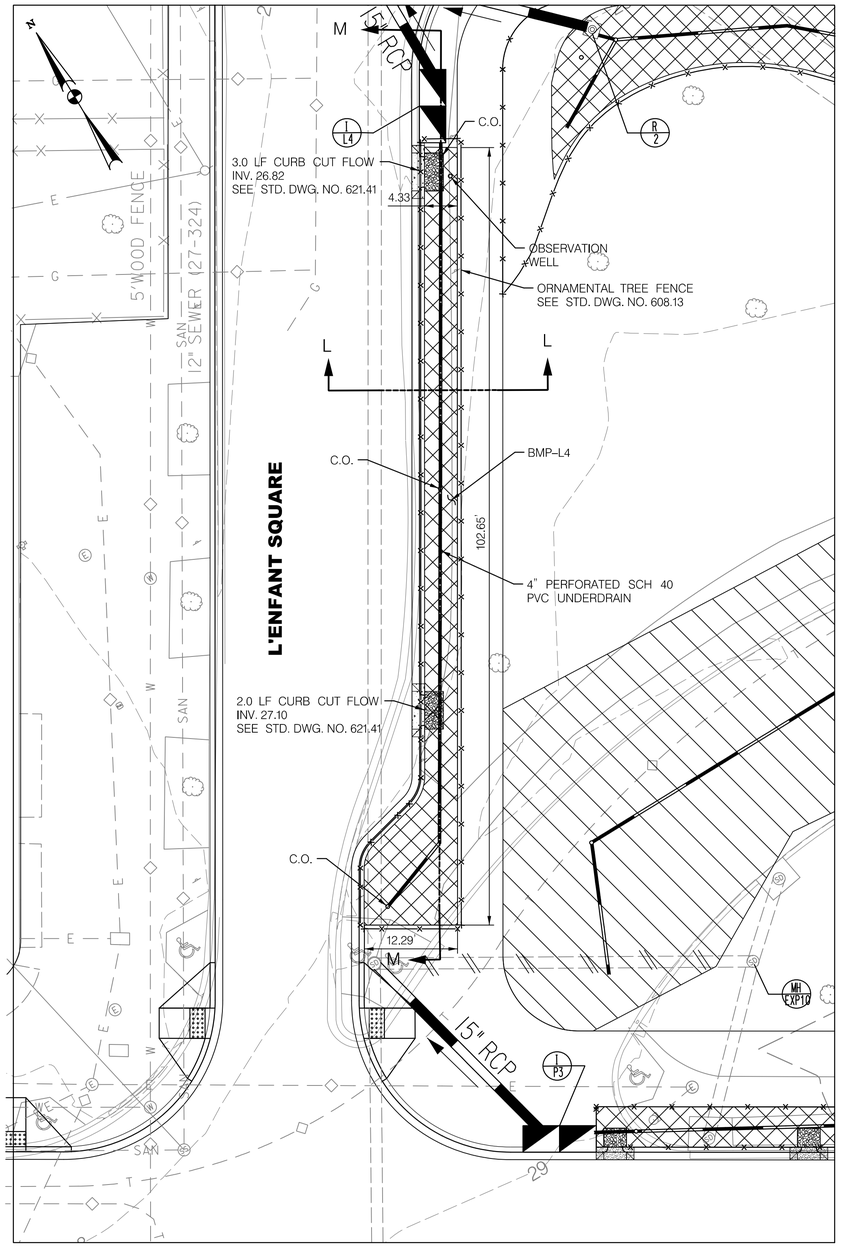
BIORETENTION PLAN & SECTIONS
BMP-M6

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

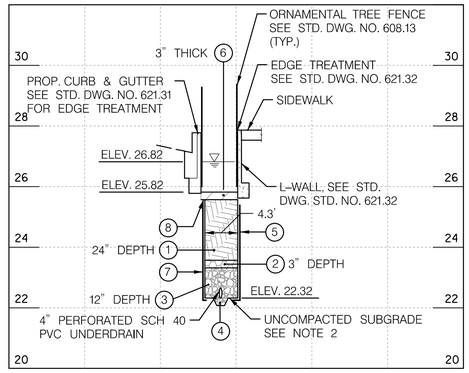
DIVISION CHIEF
DATE
FILE
DWG. 69 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P006.EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

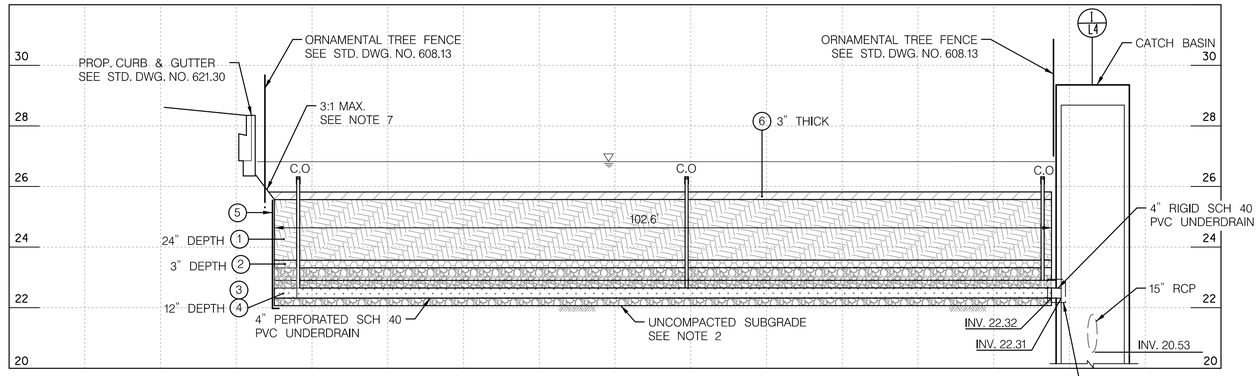
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	70	197



BMP-L4
PLAN VIEW
SCALE: 1" = 10'



SECTION L-L
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION M-M
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
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LEGEND:

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3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

SW-7

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

BIORETENTION PLAN & SECTIONS
BMP-L4

DIVISION CHIEF
DATE
FILE
DWG. 70 OF 197

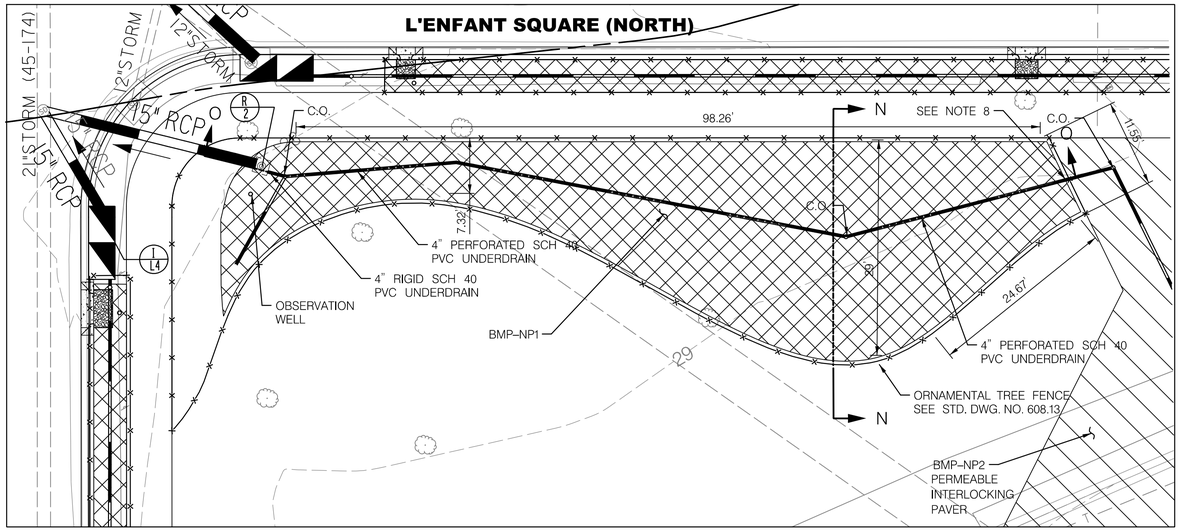
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

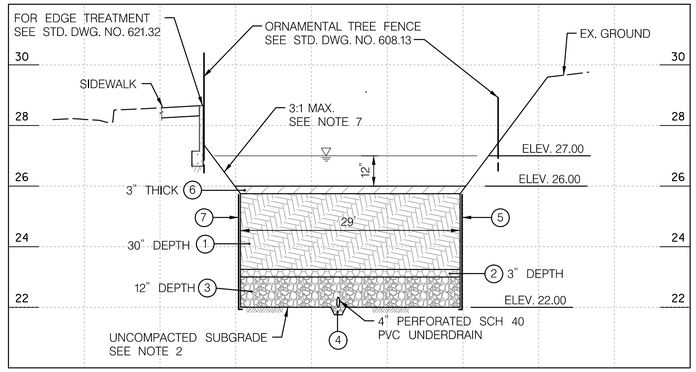
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P007.E00BIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	71	197

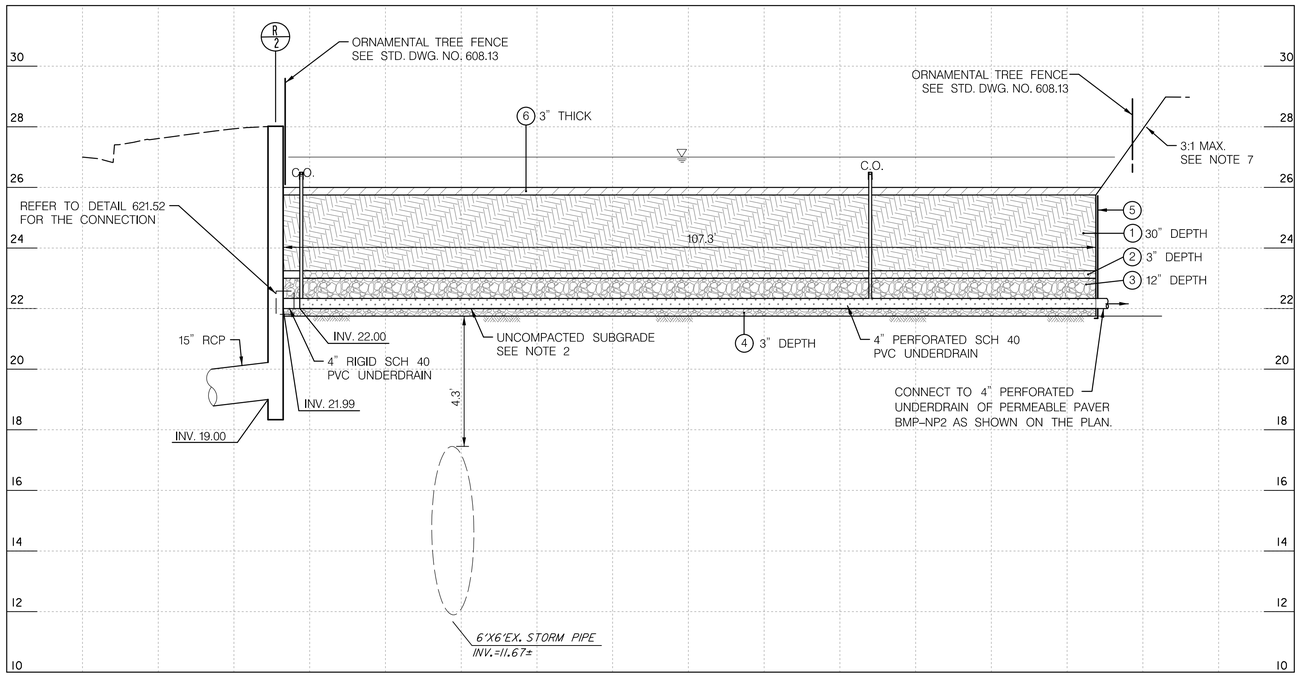


BMP-NP1
PLAN VIEW
SCALE: 1" = 10'



SECTION N-N
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

PERMEABLE PAVER



SECTION O-O
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

AS BUILT DATA RISER (R-2)			
DIMENSION	OPENING TOP ELEV.	15" RCP INVERT	4" PVC UNDERDRAIN INVERT
2' X 2'	26.75	19.00	22.15

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32
4. TREES AND PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN PLANS.
5. BOTTOM OF BIORETENTION SHALL BE AT 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
6. OUTLET REQUIRED AS SPECIFIED BY PLANS.
7. SIDE SLOPE STEEPER THAN 3:1 MAY BE ALLOWED: HOWEVER, MUST BE STABILIZED IN ACCORDANCE WITH DDOT DESIGN REQUIREMENTS. MINIMUM 12" PLANT BED SOIL SHALL BE PROVIDED UNDER THE SLOPE.
8. 4" PERFORATED PIPE BEND SHALL BE PROVIDED FOR THE CONNECTION BETWEEN BMP-NP1 AND BMP-NP2 UNDERDRAIN.

LEGEND:

1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

SW-8

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
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PROFESSIONAL ENGINEER

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PROJECT MANAGEMENT DIVISION

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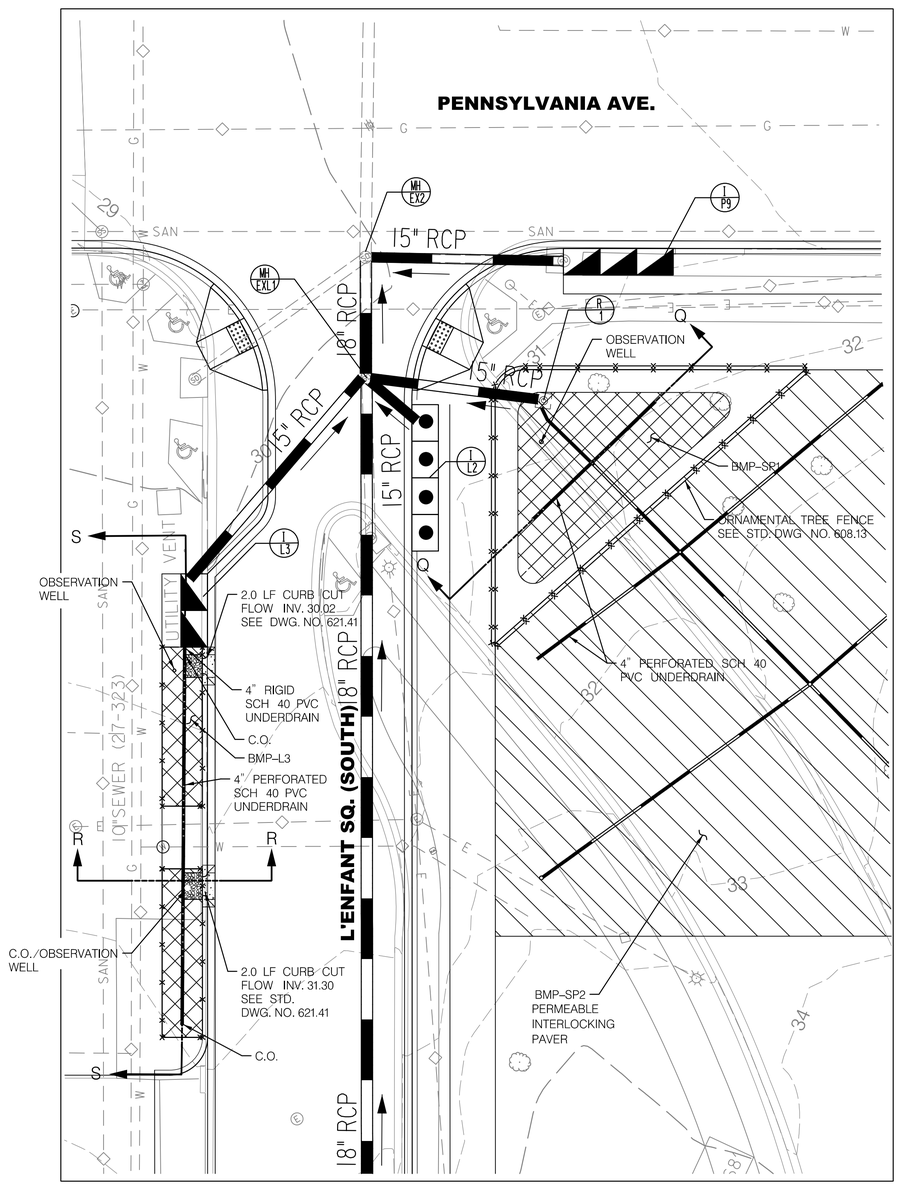
BIORETENTION PLAN & SECTIONS
BMP-NP1

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

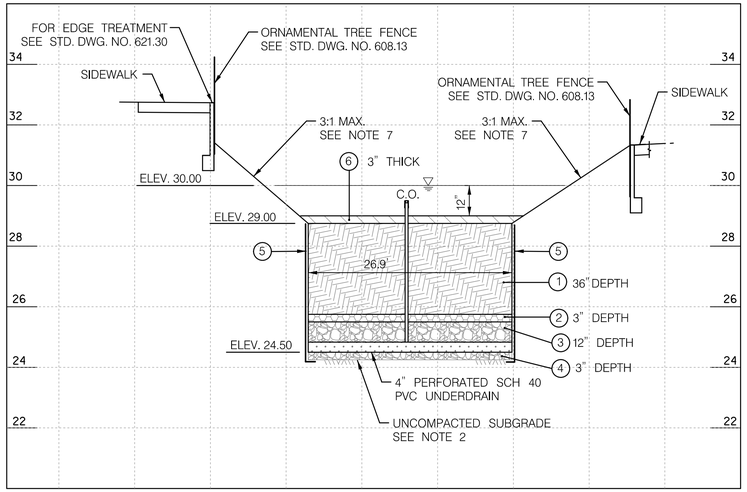
DIVISION CHIEF
DATE
FILE
DWG. 71 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P008.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

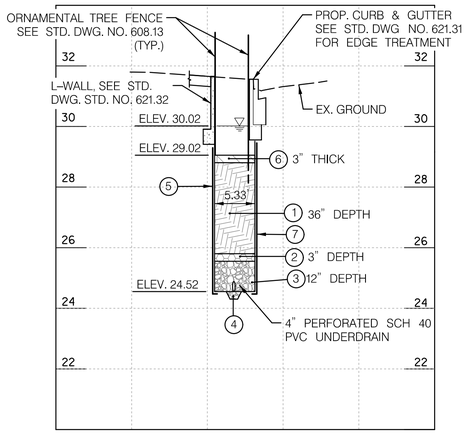
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	72	197



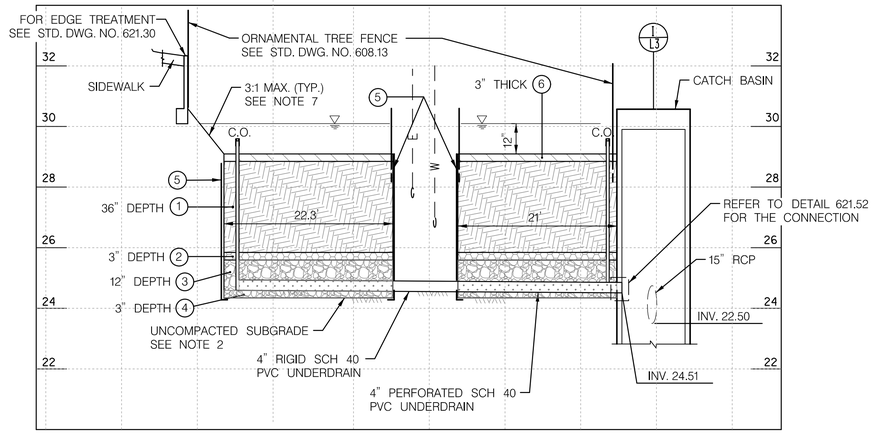
BMP-L3 & BMP-SP1
PLAN VIEW
SCALE: 1" = 10'



SECTION Q-Q
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION R-R
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION S-S
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32
4. TREES AND PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN PLANS.
5. BOTTOM OF BIORETENTION SHALL BE AT 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
6. OUTLET REQUIRED AS SPECIFIED BY PLANS.
7. SIDE SLOPE STEEPER THAN 3:1 MAY BE ALLOWED: HOWEVER, MUST BE STABILIZED IN ACCORDANCE WITH DDOT DESIGN REQUIREMENTS. MINIMUM 12" PLANT BED SOIL SHALL BE PROVIDED UNDER THE SLOPE.

AS BUILT DATA RISER (R-1)			
DIMENSION	OPENING TOP ELEV.	15" RCP INVERT	4" PVC UNDERDRAIN INVERT
2' X 2'	26.75	23.30	24.50

LEGEND:

1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

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SW-9

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INFRASTRUCTURE PROJECT MANAGEMENT ADMINISTRATION
PROJECT MANAGEMENT DIVISION

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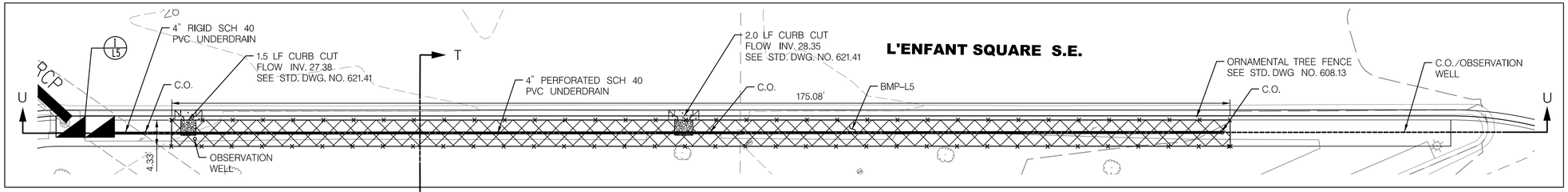
PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

BIORETENTION PLAN & SECTIONS
BMP-L3 AND BMP-SP1

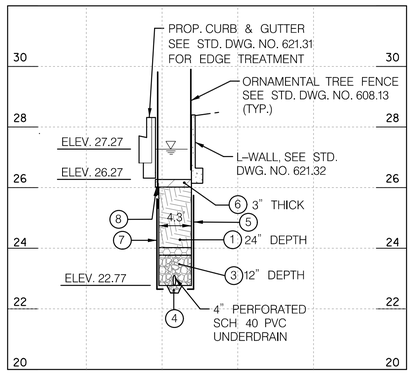
DIVISION CHIEF
DATE
FILE
DWG. 72 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P009.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

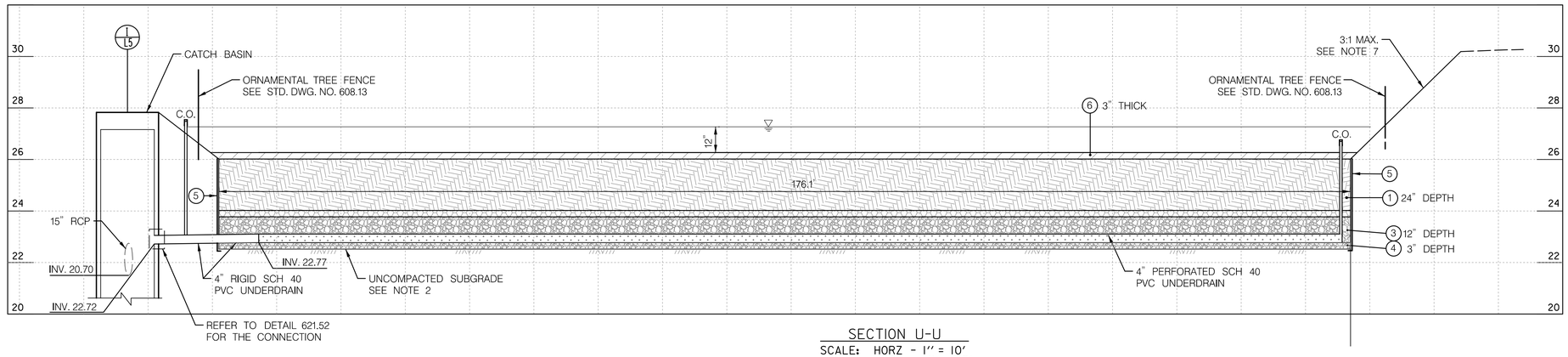
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	73	197



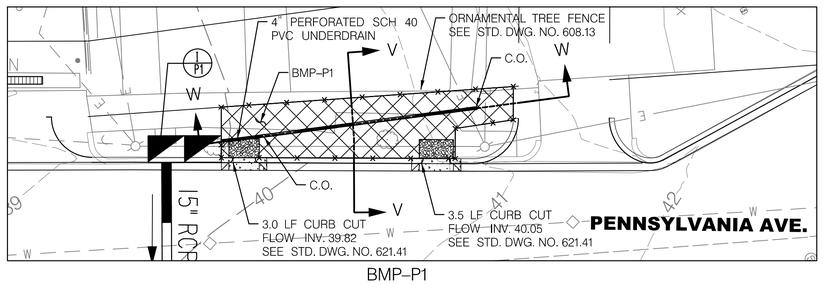
BMP-L5
PLAN VIEW
SCALE: 1" = 10'



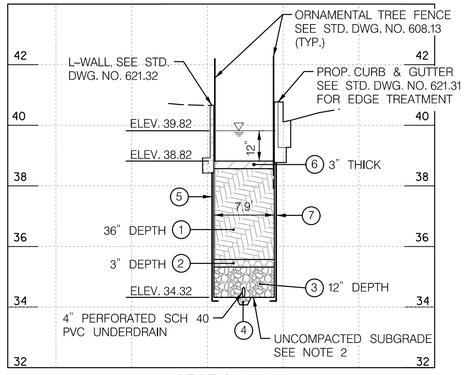
SECTION T-T
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



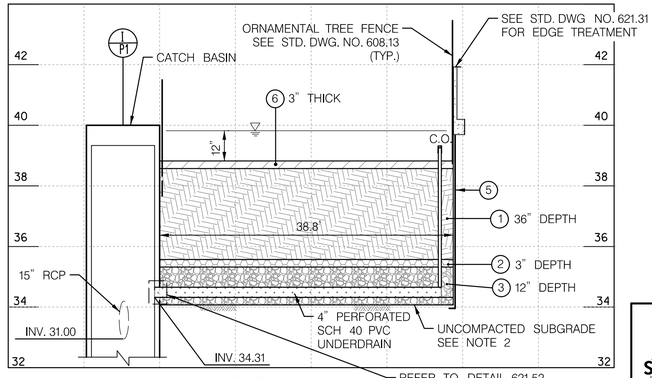
SECTION U-U
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



BMP-P1
PLAN VIEW
SCALE: 1" = 10'



SECTION V-V
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION W-W
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32
4. TREES AND PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN PLANS.
5. BOTTOM OF BIORETENTION SHALL BE AT 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
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7. SIDE SLOPE STEEPER THAN 3:1 MAY BE ALLOWED: HOWEVER, MUST BE STABILIZED IN ACCORDANCE WITH DDOT DESIGN REQUIREMENTS. MINIMUM 12" PLANT BED SOIL SHALL BE PROVIDED UNDER THE SLOPE.

LEGEND:

1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED · PROFESSIONAL ENGINEER

SW-10

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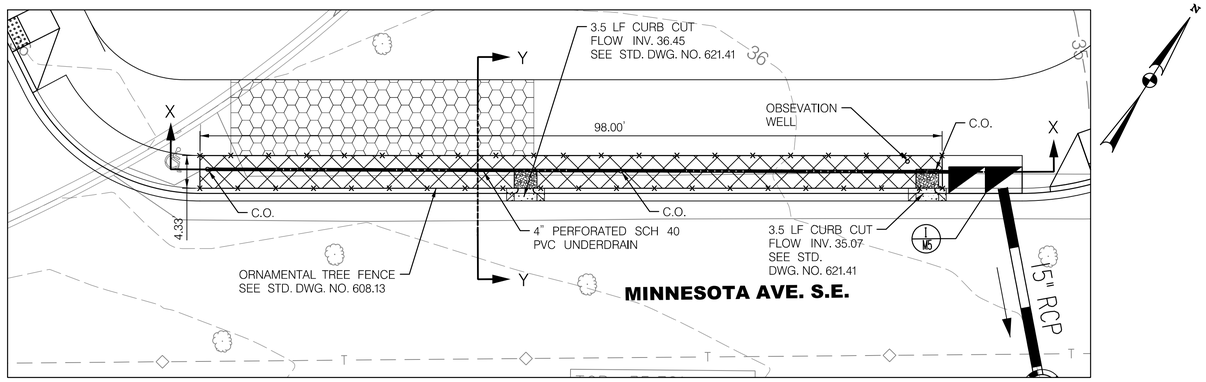
BIORETENTION PLAN & SECTIONS
BMP-L5 AND BMP-P1

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

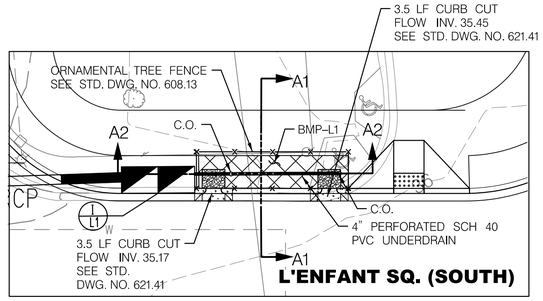
DIVISION CHIEF
DATE
FILE
DWG. 73 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P010_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

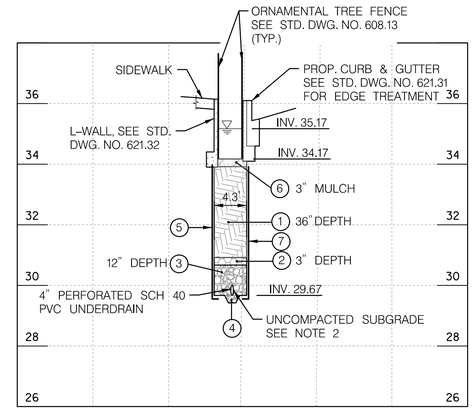
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	74	197



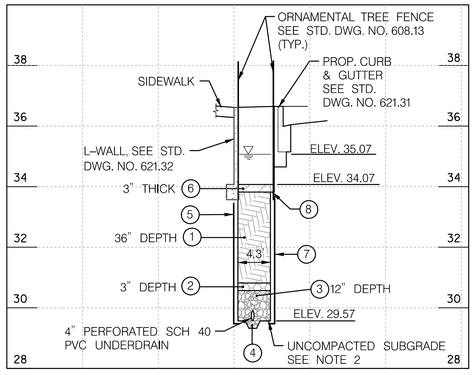
BMP-M5
PLAN VIEW
SCALE: 1" = 10'



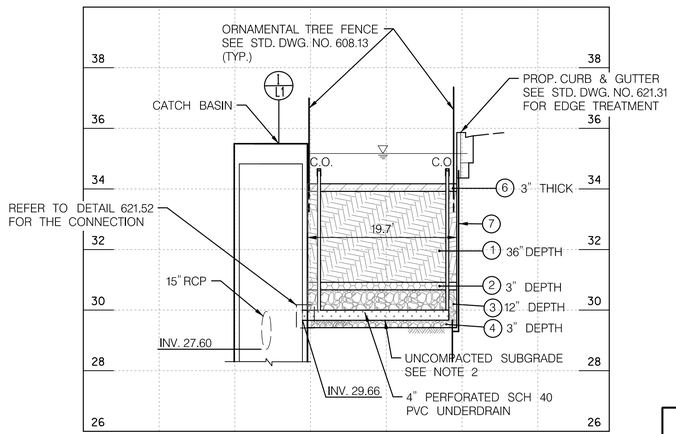
BMP-L1
PLAN VIEW
SCALE: 1" = 10'



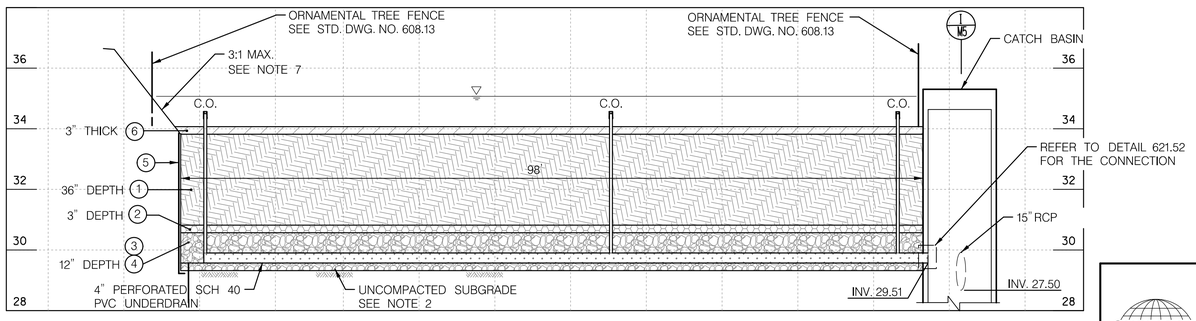
SECTION A1-A1
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION Y-Y
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION A2-A2
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION X-X
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

LEGEND:

1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32
4. TREES AND PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN PLANS.
5. BOTTOM OF BIORETENTION SHALL BE AT 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
6. OUTLET REQUIRED AS SPECIFIED BY PLANS.
7. SIDE SLOPE STEEPER THAN 3:1 MAY BE ALLOWED; HOWEVER, MUST BE STABILIZED IN ACCORDANCE WITH DDOT DESIGN REQUIREMENTS. MINIMUM 12" PLANT BED SOIL SHALL BE PROVIDED UNDER THE SLOPE.

SW-11

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PROJECT ENG. K. M.
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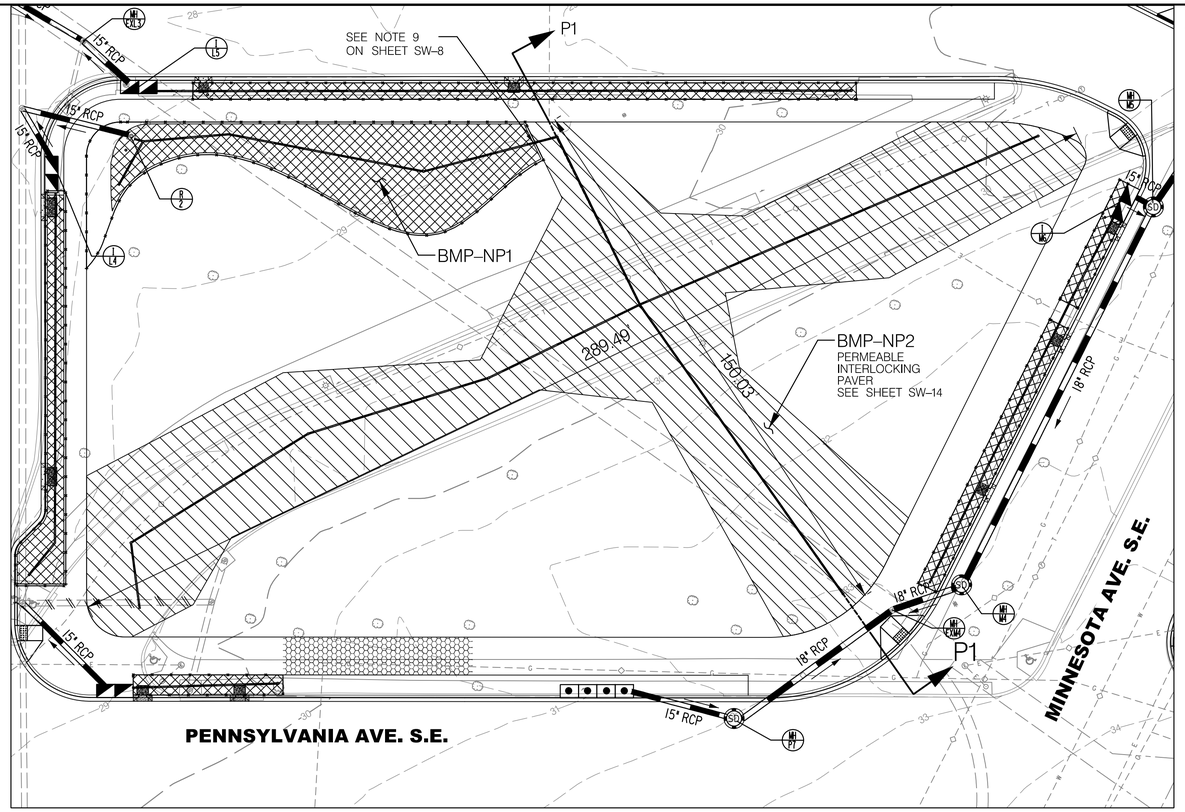
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 74 OF 197

BIORETENTION PLAN & SECTIONS
BMP-L1 AND BMP-M5

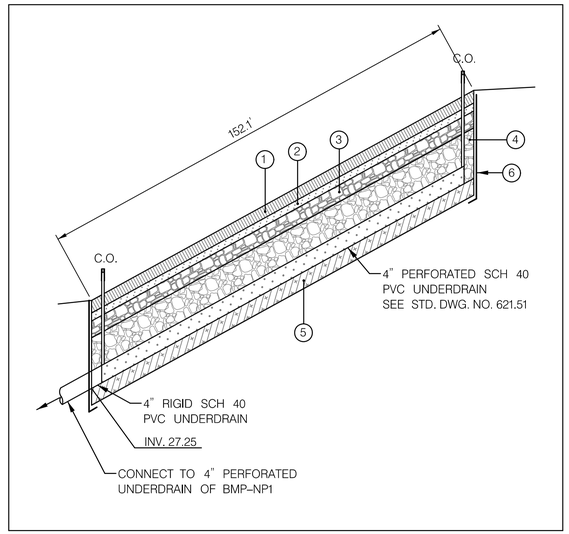
K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P011_EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	75	197



BMP-NP2
PLAN VIEW

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



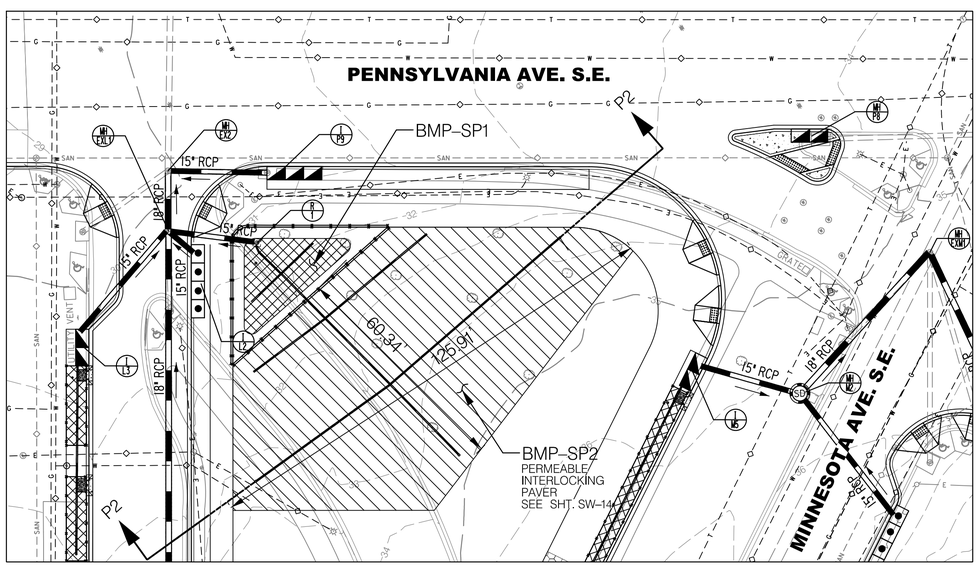
SECTION P1-P1
NOT TO SCALE

LEGEND:

1. 3" PERMEABLE INTERLOCKING CONCRET PAVERS (PICP)
2. 2" INCHES BEDDING LAYER, AASHTO #8 OR APPROVED EQUIVALENT
3. 4" CHOKER LAYER, AASHTO #57 OR APPROVED EQUIVALENT
4. 12" RESERVOIR LAYER, AASHTO #3, #2, OR APPROVED EQUIVALENT
5. 4" FILTER LAYER, (SEE NOTE 7), AASHTO #8 OR APPROVED EQUIVALENT
6. GEOTEXTILE CLASS 2, LOCATED ON SIDES OF PRACTICES ONLY

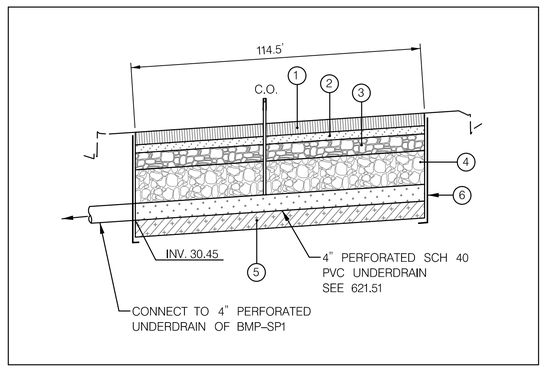
LEGEND:

1. DETAIL TO BE USED ONLY WHEN APPROVED BY DDOT IPMA AND SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "PERMEABLE UNIT PAVERS" (NOT CURRENTLY ALLOWED ON COLLECTOR AND ARTERIAL)
2. AGGREGATE LAYERS SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "AGGREGATES FOR PERMEABLE PAVEMENT AND BIORETENTION".
3. SEE DWG. NO. 621.10 FOR LONGITUDINAL AND CROSS SLOPE REQUIREMENTS.
4. WATERFROOF MEMBRANE TO BE USED TO PROMOTE WATER RE-USE, PROTECT NEARBY BUILDING FOUNDATIONS AND AVOID INFILTRATION AROUND UTILITIES, SEE DESIGN PLANS.
5. DEPTH OF RESERVOIR LAYER AS SHOWN ON DESIGN PLANS SHOULD BE SIZED TO ADDRESS STROMWATER MANANGE MENT AND CONVEYANCE REQUIREMENTS, AND PAVEMENT STRUCTURAL DESIGN.
6. WHEN FILTER LAYER IS OMITTED, PROVIDE GEOTEXTILE CLASS 1 MATERIAL BENEATH RESERVOIR LAYER MEETING CURRENT APPROVED DDOT SPECIFICATION FOR GEOSYNTHETICS FOR STORM WATER FACILITIES.
7. BOTTOM OF PERMEABLE STRUCTURE SHALL BE AT LEAST 2' ABOVE THE SEASOLNAL HIGH WATER TABLE OR BEDROCK, AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
8. TOP OF PAVEMENT SHOULD BE DESIGNED TO ACHIEVE 1% MINIMUM SLOPE IN ANY DIRECTION.
9. OTHER TYPES OF EDGE RESTRAINTS SUCH AS STEEL OR PLASTIC SHALL BE ALLOWED AS APPROVED BY THE ENGINEER AND BASED ON MANUFACTURER'S RECOMMENDATIONS.



BMP-SP2
PLAN VIEW

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



SECTION P2-P2
NOT TO SCALE

DISTRICT OF COLUMBIA
PRAWN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SW-12

SHELADIA ASSOCIATES, INC.

Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

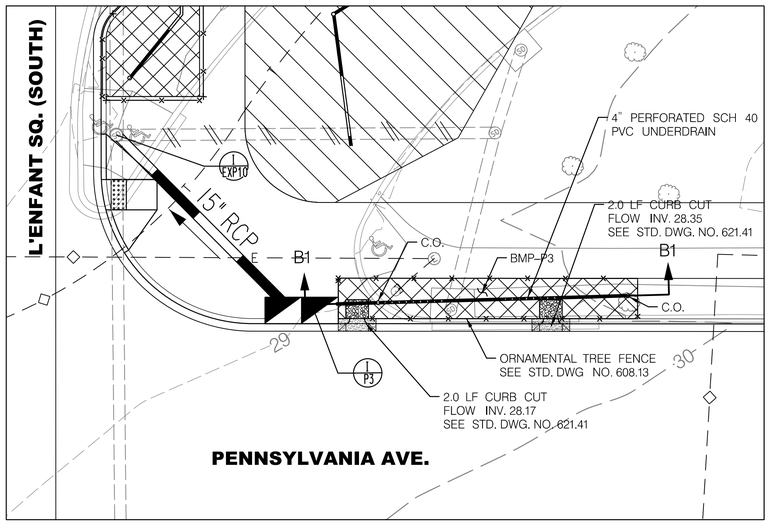
PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

PERMEABLE INTERLOCKING PAVER
PLAN & SECTIONS
BMP-NP2 AND BMP-SP2

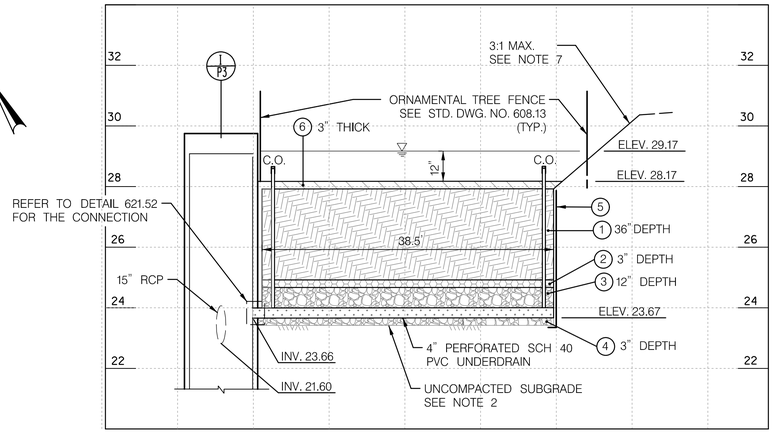
DIVISION CHIEF
DATE
FILE
DWG. 75 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P012.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	76	197



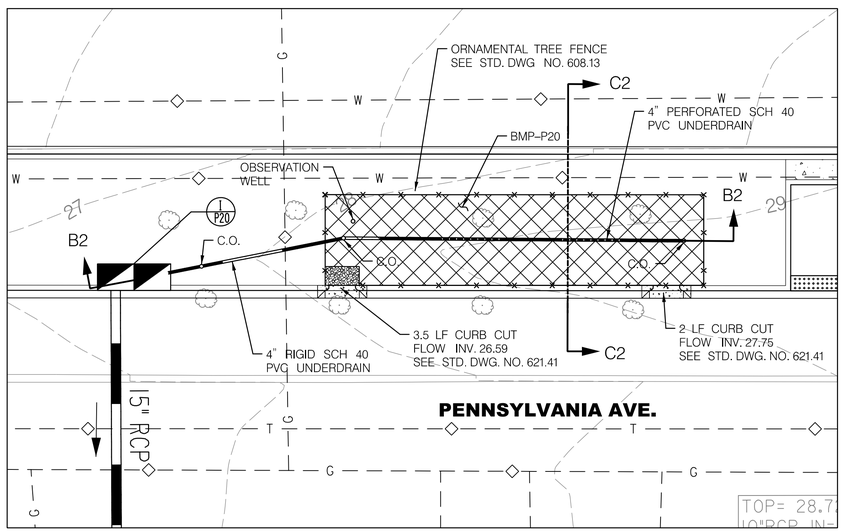
BMP-P3
PLAN VIEW
SCALE: 1" = 10'



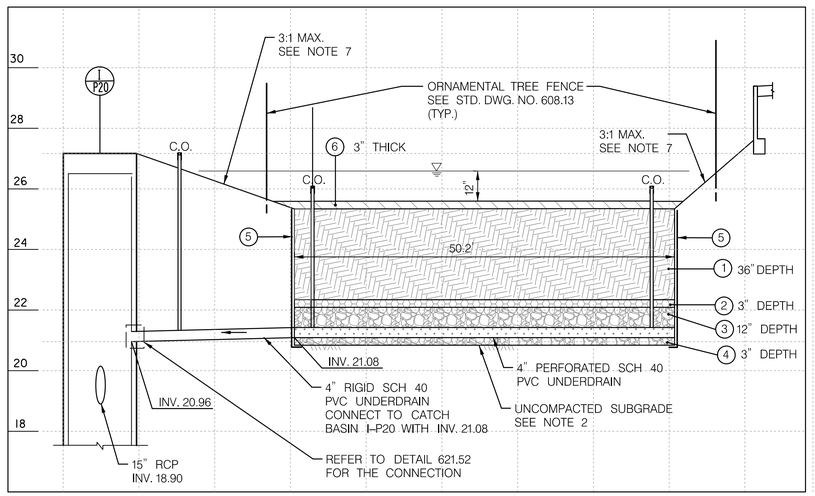
SECTION B1-B1
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

NOTES:

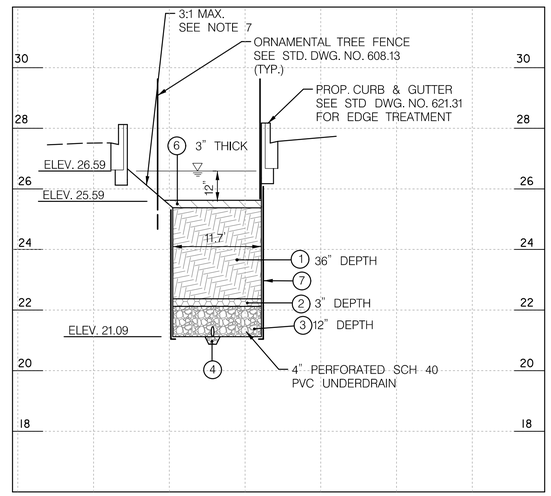
1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32
4. TREES AND PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN PLANS.
5. BOTTOM OF BIORETENTION SHALL BE AT 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
6. OUTLET REQUIRED AS SPECIFIED BY PLANS.
7. SIDE SLOPE STEEPER THAN 3:1 MAY BE ALLOWED: HOWEVER, MUST BE STABILIZED IN ACCORDANCE WITH DDOT DESIGN REQUIREMENTS. MINIMUM 12" PLANT BED SOIL SHALL BE PROVIDED UNDER THE SLOPE.



BMP-P20
PLAN VIEW
SCALE: 1" = 10'



SECTION B2-B2
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'



SECTION C2-C2
SCALE: HORZ - 1" = 10'
VERT - 1" = 2.5'

LEGEND:

1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. SCARIFY SUBGRADE, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE
8. 6" BENCH FOR CURB CONSTRUCTION

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

SW-13

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

BIORETENTION PLAN & SECTIONS
BMP-P3 AND BMP-P20

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 76 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-P013_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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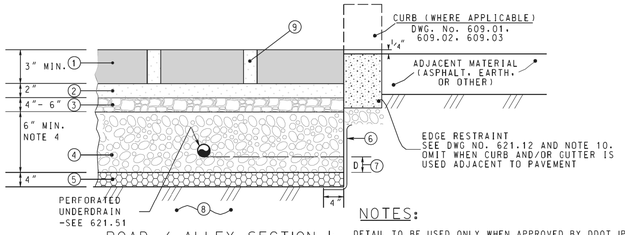


ROAD / ALLEY SECTION

LEGEND

(1) PERMEABLE INTERLOCKING CONCRETE PAVERS (PICP) OR SIMILAR

(2) BEDDING LAYER, AASHTO #8 OR APPROVED EQUIVALENT

(3) CHOKER LAYER, AASHTO #57 OR APPROVED EQUIVALENT

(4) RESERVOIR LAYER, AASHTO #3, #2, OR APPROVED EQUIVALENT

(5) FILTER LAYER (SEE NOTE 7), AASHTO #8 OR APPROVED EQUIVALENT

(6) GEOTEXTILE CLASS 2, LOCATED ON SIDES OF PRACTICES ONLY

(7) INFILTRATION SUMP. FOR STANDARD DESIGN, D = 0"
FOR ENHANCED DESIGN, SEE NOTE 6

(8) UNCOMPACTED SUBGRADE FOR AREAS DESIGNED FOR INFILTRATION PRACTICES
FOR OTHER AREAS, COMPACT AS SPECIFIED IN SPECIFICATION CITED IN NOTE 2
FOR SOFT SOILS, INSTALL GEOGRID PER GEOTECHNICAL ENGINEER RECOMMENDATIONS

(9) JOINT TO HAVE ½ INCH MAXIMUM GAP IN ACCORDANCE WITH THE LATEST ADA REQUIREMENTS AND TO BE FILLED WITH AASHTO #8 OR APPROVED EQUIVALENT. MINIMUM GAP SHALL BE ¼" OR PER MANUFACTURERS RECOMMENDATIONS FOR INTERLOCKING CONCRETE PAVERS.

NOTES:

1. DETAIL TO BE USED ONLY WHEN APPROVED BY DDOT IPMA AND SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "PERMEABLE UNIT PAVERS" (NOT CURRENTLY ALLOWED ON COLLECTOR AND ARTERIAL)
2. AGGREGATE LAYERS SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "AGGREGATES FOR PERMEABLE PAVEMENT AND BIORETENTION".
3. SEE DWG. NO. 621.10 FOR LONGITUDINAL AND CROSS SLOPE REQUIREMENTS.
4. WATERPROOF MEMBRANE TO BE USED TO PROMOTE WATER RE-USE, PROTECT NEARBY BUILDING FOUNDATIONS AND AVOID INFILTRATION AROUND UTILITIES. SEE DESIGN PLANS.
5. DEPTH OF RESERVOIR LAYER AS SHOWN ON DESIGN PLANS SHOULD BE SIZED TO ADDRESS STORMWATER MANAGEMENT AND CONVEYANCE REQUIREMENTS, AND PAVEMENT STRUCTURAL DESIGN.
6. ENHANCED DESIGN CONTAINS A WATER STORAGE LAYER AND AN INFILTRATION SUMP BENEATH THE UNDERDRAIN SIZED TO DRAIN THE DESIGN STORM WITHIN 48 HOURS.
7. WHEN FILTER LAYER IS OMITTED, PROVIDE GEOTEXTILE CLASS 1 MATERIAL BENEATH RESERVOIR LAYER MEETING CURRENT APPROVED DDOT SPECIFICATION FOR "GEOSYNTHETICS FOR STORMWATER FACILITIES".
8. BOTTOM OF PERMEABLE PAVEMENT STRUCTURE SHALL BE AT LEAST 2' ABOVE THE SEASONAL HIGH WATER TABLE OR BEDROCK, AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
9. TOP OF PAVEMENT SHOULD BE DESIGNED TO ACHIEVE 1% MINIMUM SLOPE IN ANY DIRECTION.
10. OTHER TYPES OF EDGE RESTRAINTS SUCH AS STEEL OR PLASTIC SHALL BE ALLOWED AS APPROVED BY THE ENGINEER AND BASED ON MANUFACTURER'S RECOMMENDATIONS.

DATE	APPR.
REVISED	
ISSUED:	
REFERENCE	

RECOMMENDED: Ravindra D Gonsai
DEPUTY CHIEF ENGINEER

APPROVED:
CHIEF TRANSPORTATION ENGINEER

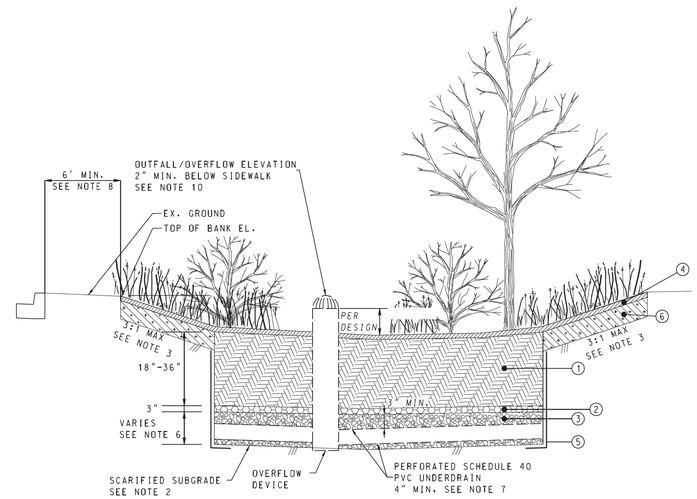
PERMEABLE INTERLOCKING UNIT PAVER PAVEMENT
(ROADWAY AND ALLEY)

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.05

NOTES:

1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING, AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. SIDE SLOPES STEEPER THAN 3:1 MAY BE ALLOWED; HOWEVER, MUST BE STABILIZED IN ACCORDANCE WITH DDOT DESIGN REQUIREMENTS.
4. FOR ALTERNATIVE EDGE TREATMENT CONDITIONS, SEE DWG. NOS. 621.30 TO 621.32
5. BOTTOM OF BIOSWALE SHALL BE AT LEAST 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
6. STONE DEPTH SHALL VARY PER DESIGN PLANS, TO ACHIEVE A WATER STORAGE LAYER/ INFILTRATION SUMP, WHEN APPLICABLE.
7. PROVIDE UNDERDRAIN WHEN CALLED FOR PER DESIGN PLANS. SEE DWG. 603.01 FOR MIN. BEDDING REQUIREMENT.
8. DISTANCE TO ROADWAY MAY BE REDUCED WHEN SIDE OF PRACTICE IS LINED WITH WATERPROOF MEMBRANE, PER DESIGN PLANS.
9. SEE DWG. NO. 603.01 FOR CLEAN OUT AND OBSERVATION WELL DETAIL.
10. BIORETENTION FACILITY DEPICTED IS ONE WITH AN OVERFLOW STRUCTURE. "OFF-LINE" FACILITIES DESIGNED TO LIMIT INFLOW SO THAT OVERFLOW STRUCTURES ARE NOT REQUIRED ARE ALSO PERMISSIBLE, AS SHOWN ON DESIGN PLANS.
11. IF DEPTH FROM SURROUNDING GRADE TO LOW POINT OF FACILITY EXCEEDS 5 FEET, A FENCE IS REQUIRED AROUND ENTIRE FACILITY.



ELEVATION

LEGEND: (1) BIORETENTION SOIL
(2) CHOKER LAYER, SAND & GRAVEL
(3) AASHTO #57 STONE, DOUBLE WASHED
(4) MULCH, PER PLANTING PLAN
(5) GEOTEXTILE, CLASS 2
(6) PLANT BED SOIL

DATE	APPR.
REVISED	
ISSUED:	
REFERENCE	

RECOMMENDED: Ravindra D Gonsai
DEPUTY CHIEF ENGINEER

APPROVED:
CHIEF TRANSPORTATION ENGINEER

BIORETENTION IN OPEN AREA

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.20

SW-14

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
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www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

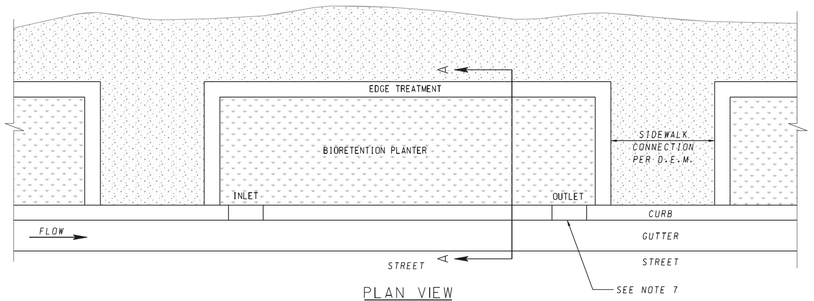
BIORETENTION DETAILS

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 77 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-D014.EDGBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

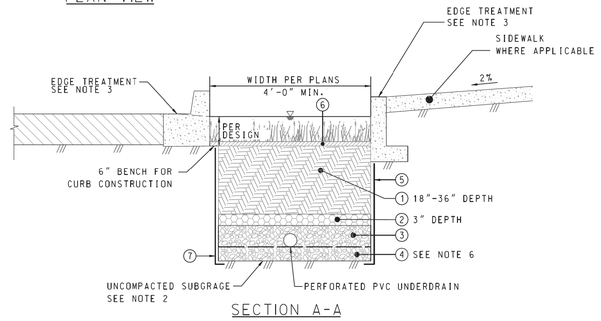
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	78	197



PLAN VIEW

NOTES:

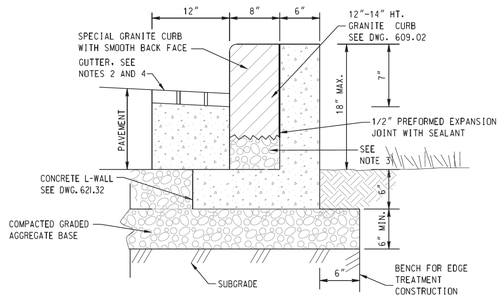
1. BIORETENTION MATERIALS AND CONSTRUCTION SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "BIORETENTION, PLANTING, AND STRUCTURAL SOILS".
2. SCARIFY SUBGRADE 3" MIN. BEFORE INSTALLATION.
3. FOR EDGE TREATMENT OPTIONS, SEE DWG. NOS. 621.30 TO 621.32.
4. TREES AND PLANTINGS SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN PLANS.
5. BOTTOM OF BIORETENTION SHALL BE AT LEAST 2' ABOVE THE SEASONAL HIGH WATER TABLE AND BEDROCK AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
6. DEPTH OF INFILTRATION SUMP AS SHOWN ON DESIGN PLANS SHOULD BE SIZED TO ADDRESS STORMWATER MANAGEMENT REQUIREMENTS.
7. OUTLET REQUIRED AS SPECIFIED BY PLANS.



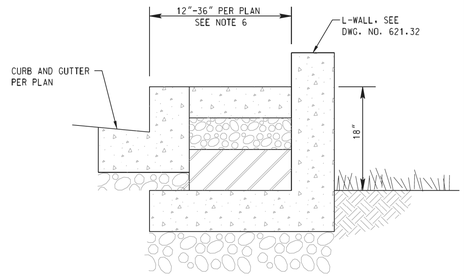
SECTION A-A

LEGEND:
1. BIORETENTION SOIL
2. CHOKER LAYER, SAND & GRAVEL
3. AASHTO #57 STONE, DOUBLE WASHED
4. INFILTRATION SUMP, AASHTO #57 STONE, DOUBLE WASHED
5. GEOTEXTILE, CLASS 2
6. MULCH, PER PLANTING PLANS
7. WATERPROOF MEMBRANE

DATE	APPR.		RECOMMENDED: Ravindra D Gonsik, DEPUTY CHIEF ENGINEER	**BIORETENTION PLANTER ADJACENT TO ROADWAY-1** (NO STEP OUT ZONE)	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISED			APPROVED: CHIEF TRANSPORTATION ENGINEER		DWG. NO. 621.22
ISSUED:		REFERENCE			



GRANITE CURB WITH L-WALL CRADLE



L-WALL AND STEP OUT ZONE

NOTES:

1. AT CATCH BASINS AND OTHER STORM OR UTILITY STRUCTURES, PROVIDE REDUCED BASE DIMENSION TO CLEAR THE STRUCTURE.
2. GUTTER MATERIAL TO MATCH PLANS (CONCRETE OR BRICK).
3. PROVIDE NO. 57 STONE BENEATH GRANITE CURB.
4. PROVIDE MIX "E" CONCRETE BETWEEN BOTTOM OF GUTTER AND WALL BASE. REMOVE CONFLICTING PCC DRY MIX PRIOR TO CONSTRUCTING CONCRETE GUTTER.
5. FINISH ALL EXPOSED CONCRETE SURFACES.
6. STEP OUT ZONE INSTALLATION MAY BE STANDARD CONCRETE SIDEWALK, SOD, MULCH OR PAVEMENT BASED ON SURROUNDING CONDITIONS, AS SHOWN ON PLANS.
7. REFER TO DESIGN AND ENGINEERING MANUAL SECTION "33.14.5.6 Safety and Access" FOR PEDESTRIAN SAFETY DESIGN REQUIREMENTS.
8. EXPANSION JOINTS SHALL BE PLACED AT MAXIMUM 90 FOOT INTERVAL. CONTRACTION JOINTS SHALL BE FORMED OR SAWED AT 30 FOOT MAXIMUM INTERVAL BETWEEN EXPANSION JOINTS. WHERE ADJACENT TO CURB, SIDEWALK OR CONCRETE PAVEMENT, JOINTS SHALL LINE UP.

DATE	APPR.		RECOMMENDED: Ravindra D Gonsik, DEPUTY CHIEF ENGINEER	**BIORETENTION FACILITY STREET SIDE EDGE TREATMENT-2**	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISED			APPROVED: CHIEF TRANSPORTATION ENGINEER		DWG. NO. 621.31
ISSUED:		REFERENCE			

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

SW-15

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

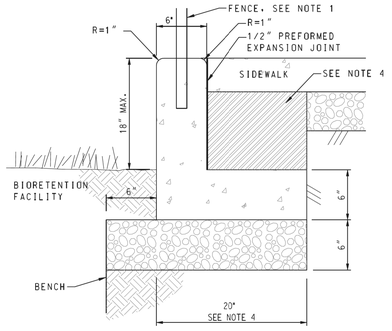
PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

BIORETENTION DETAILS

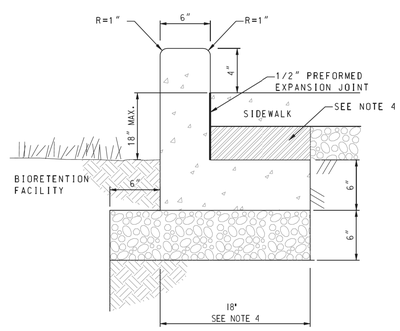
DIVISION CHIEF
DATE
FILE
DWG. 78 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-D015.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:30 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	79	197



L-WALL (FLUSH)



L-WALL (WITH REVEAL)

NOTES:

1. WHEN FLUSH WALLS ARE SELECTED, TYPICALLY IN HIGH-VOLUME PEDESTRIAN AREAS, PROVIDE RAILING OR FENCE PER PLAN.
2. WHEN WALLS WITH REVEALS ARE USED, TYPICALLY IN LOV-VOLUME PEDESTRIAN AREAS, PROVIDE BREAKS IN REVEAL AS SHOWN ON PLANS TO ALLOW FOR SIDEWALK RUNOFF INTO STORMWATER MANAGEMENT FACILITY.
3. CONCRETE SHALL BE CLASS E; FINISH ALL EXPOSED CONCRETE SURFACES.
4. BASE MAY BE REDUCED TO 15" WIDTH IF CONCRETE IS USED IN THE HATCHED AREA.
5. REFER TO DESIGN AND ENGINEERING MANUAL SECTION "33.14.5.6 SAFETY AND ACCESS" FOR PEDESTRIAN SAFETY DESIGN REQUIREMENTS.
6. EXPANSION JOINTS SHALL BE PLACED AT MAXIMUM 90 FOOT INTERVAL. CONTRACTION JOINTS SHALL BE FORMED OR SAWED AT 30 FOOT MAXIMUM INTERVAL BETWEEN EXPANSION JOINTS. WHERE ADJACENT TO CURB, SIDEWALK OR CONCRETE PAVEMENT, JOINTS SHALL LINE UP.

DATE	APPR.	
REVISED		
ISSUED:		
		REFERENCE

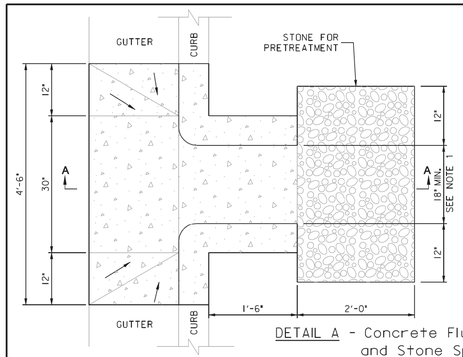
RECOMMENDED: Ravindra D Gensis
DEPUTY CHIEF ENGINEER

APPROVED:
CHIEF TRANSPORTATION ENGINEER

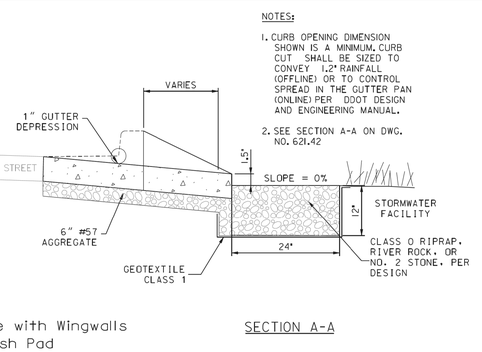
BIORETENTION FACILITY SIDEWALK SIDE EDGE TREATMENT

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.32



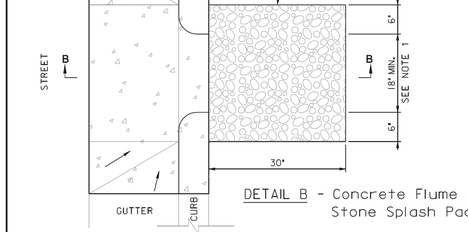
DETAIL A - Concrete Flume with Wingwalls and Stone Splash Pad



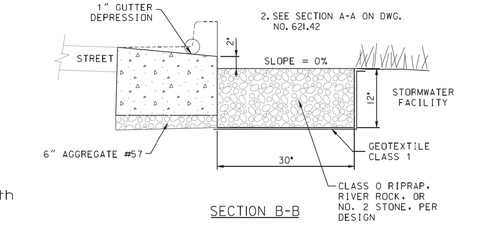
SECTION A-A

NOTES:

1. CURB OPENING DIMENSION SHOWN IS A MINIMUM. CURB CUT SHALL BE SIZED TO CONVEY 1.2" RAINFALL (OFFLINE) OR TO CONTROL SPREAD IN THE GUTTER PAN (ONLINE) PER DDOT DESIGN AND ENGINEERING MANUAL.
2. SEE SECTION A-A ON DWG. NO. 621.42



DETAIL B - Concrete Flume with Stone Splash Pad



SECTION B-B

NOTES:

1. CURB OPENING DIMENSION SHOWN IS A MINIMUM. CURB CUT SHALL BE SIZED TO CONVEY 1.2" RAINFALL (OFFLINE) OR TO CONTROL SPREAD IN THE GUTTER PAN (ONLINE) PER DDOT DESIGN AND ENGINEERING MANUAL.
2. SEE SECTION A-A ON DWG. NO. 621.42

DATE	APPR.	
REVISED		
ISSUED:		
		REFERENCE

RECOMMENDED: Ravindra D Gensis
DEPUTY CHIEF ENGINEER

APPROVED:
CHIEF TRANSPORTATION ENGINEER

CURB CUT WITH SPLASH PAD - 1

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.41

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SW-16

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

BIORETENTION DETAILS

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 79 OF 197

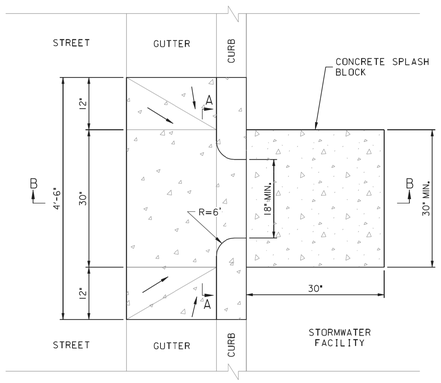
SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-D016_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:31 AM

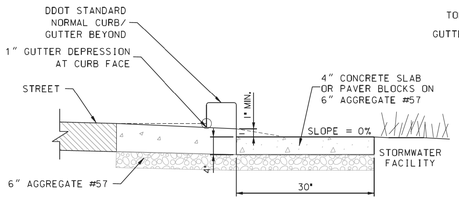
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	80	197



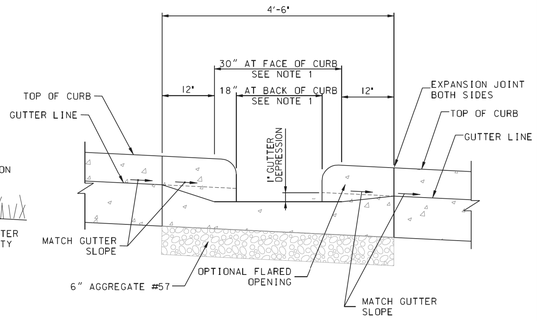
PLAN VIEW

NOTES:

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



SECTION B-B

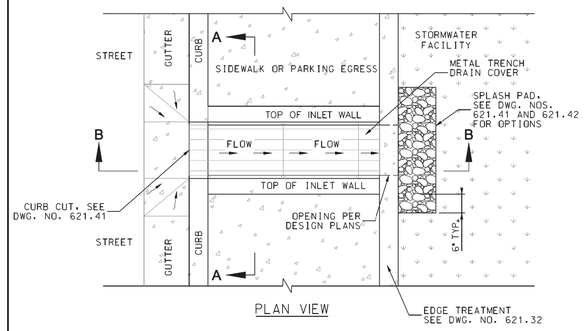


SECTION A-A

			RECOMMENDED: Ravindra P. Goyal DEPUTY CHIEF ENGINEER	CURB CUT WITH SPLASH PAD – 2
DATE	APPR.		APPROVED: CHIEF TRANSPORTATION ENGINEER	
REVISED				
ISSUED:				
		REFERENCE		

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

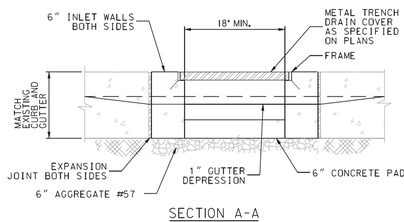
DWG. NO. 621.42



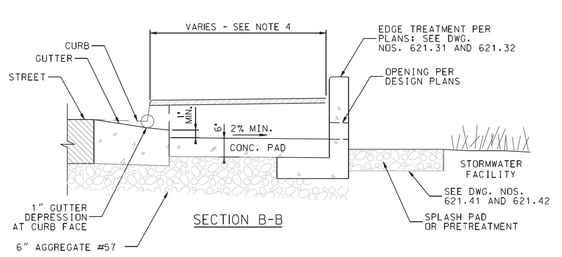
PLAN VIEW

NOTES:

1. CURB OPENING DIMENSION SHOWN IS A MINIMUM. CURB CUTS SHALL BE SIZED TO CONVEY 1.2" RAINFALL (OFFLINE) OR TO CONTROL SPREAD IN THE GUTTER PAN (ONLINE) PER DDOT DESIGN AND ENGINEERING MANUAL.
2. REFER TO DESIGN PLANS FOR SIZE AND TYPE OF GRATE.
3. METAL TRENCH DRAIN COVER TO BE BOLTED DOWN (THEFT PROTECTED) BUT REMOVABLE.
4. FOR DIMENSIONS AND SLOPES, SEE DESIGN PLANS.



SECTION A-A



SECTION B-B

			RECOMMENDED: Ravindra P. Goyal DEPUTY CHIEF ENGINEER	CURB CUT METAL TRENCH DRAIN COVER–1
DATE	APPR.		APPROVED: CHIEF TRANSPORTATION ENGINEER	
REVISED				
ISSUED:				
		REFERENCE		

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.43

SW-17

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

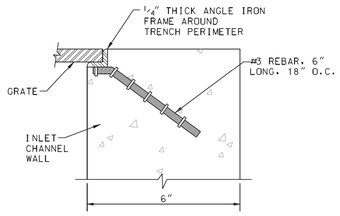
BIORETENTION DETAILS

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 80 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-D017_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:31 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	81	197



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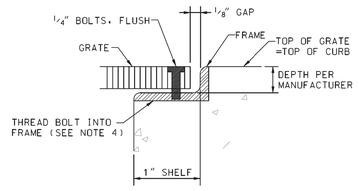


GRATE ATTACHMENT DETAIL

CONSTRUCTION NOTES:

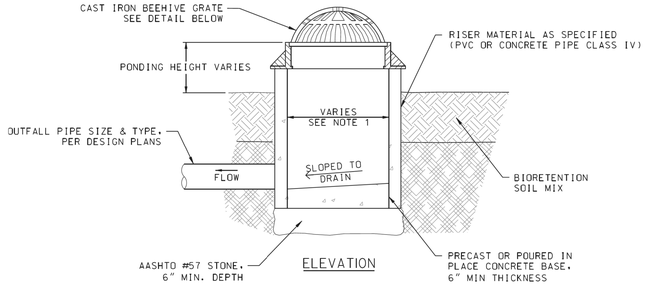
1. CAST IRON, NATURAL FINISH.
2. NO OPENING GREATER THAN 3/8".
3. PROTECT THREADED HOLES IN FRAME FROM CLOGGING DURING FRAME INSTALLATION.
4. GRATE TO BE RATED FOR H-20 LOADING, WITH A NON-SLIP SURFACE HAVING A STATIC COEFFICIENT OF FRICTION BETWEEN 0.60 AND 1.0 PER ASTM C1028. GRATES ON INCLINES GREATER THAN 4% SHALL HAVE A COEFFICIENT OF 0.80 TO 1.0.
5. WAVY GRATE AS SHOWN OR APPROVED ADA COMPLIANT EQUIVALENT.

			RECOMMENDED: Ravindra D Gonik — DEPUTY CHIEF ENGINEER
DATE	APPR.		APPROVED: — CHIEF TRANSPORTATION ENGINEER
REVISED			
ISSUED:			
		REFERENCE	

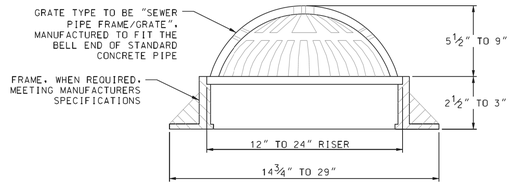
CURB CUT METAL TRENCH DRAIN COVER-2

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.44



ELEVATION



CAST IRON BEEHIVE GRATE DETAIL
SEE NOTE 1

NOTES:

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

			RECOMMENDED: Ravindra D Gonik — DEPUTY CHIEF ENGINEER
DATE	APPR.		APPROVED: — CHIEF TRANSPORTATION ENGINEER
REVISED			
ISSUED:			
		REFERENCE	

OVERFLOW RISER WITH BEEHIVE GRATE

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.50

SW-18

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

BIORETENTION DETAILS

DIVISION CHIEF
DATE
FILE
DWG. 81 OF 197

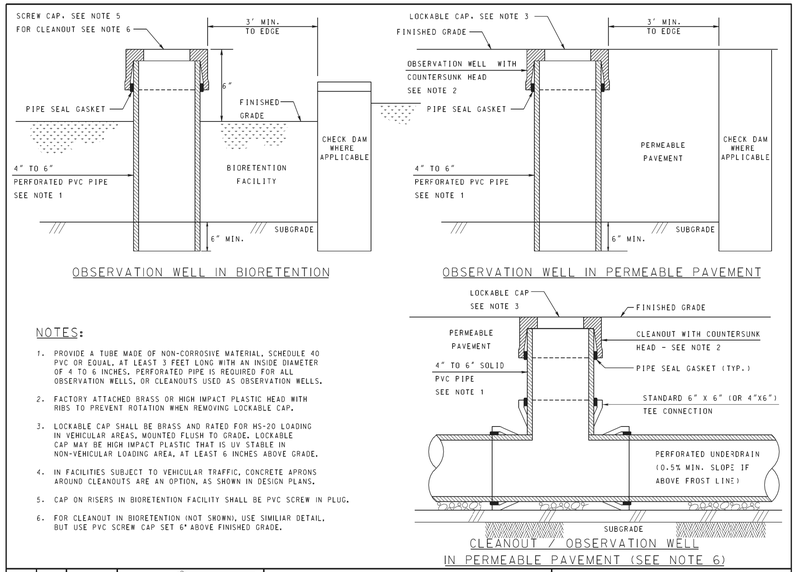
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-D018.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:31 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	82	197



OBSERVATION WELL IN BIORETENTION

OBSERVATION WELL IN PERMEABLE PAVEMENT

NOTES:

1. PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 PVC 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 SIMILIAR DETAIL, BUT USE PVC SCREW CAP SET 6" ABOVE FINISHED GRADE.

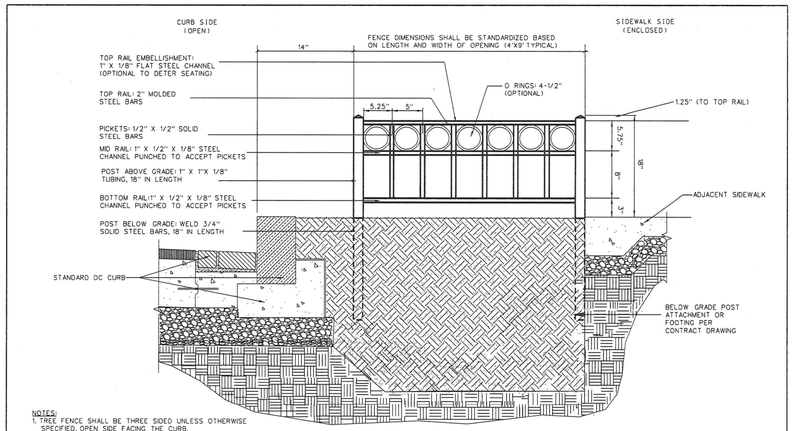
CLEANOUT / OBSERVATION WELL IN PERMEABLE PAVEMENT (SEE NOTE 6)

			RECOMMENDED: Ravindra D Gemit	DEPUTY CHIEF ENGINEER
DATE	APPR.			
REVISED			APPROVED:	
ISSUED:				CHIEF TRANSPORTATION ENGINEER
		REFERENCE		

STORMWATER FACILITY UNDERDRAIN PIPE RISERS

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.51



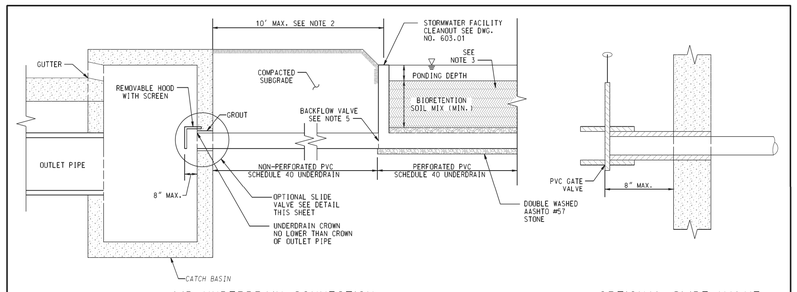
NOTES:
1. TREE FENCE SHALL BE THREE SIDED UNLESS OTHERWISE SPECIFIED, OPEN SIDE FACING THE CURB.
2. ORNAMENTAL TREE FENCE MATERIALS AND CONSTRUCTION REQUIREMENTS SHALL BE PER DDOT STANDARD SPECIFICATION, SECTION 608.06.
3. FOR EXISTING TREE OPENINGS, FIELD MEASUREMENTS ARE REQUIRED PRIOR TO FABRICATION.
4. ADDITIONAL POST REQUIRED ALONG THE LENGTH (9 FEET) AT MID- POINT. IF TREE OPENING LENGTH EXCEEDS 12 FEET, POSTS SHOULD BE WELDED EVERY 4 FEET ALONG LENGTH.

ISSUED: 8/2015	RECOMMENDED:	PROJECT MANAGER
REVISION / APPROVAL	APPROVED: Mohammed K Kaldi	CHIEF ENGINEER

ORNAMENTAL TREE FENCE

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

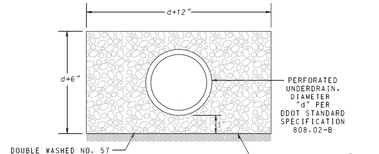
DWG. NO. 608.13



LID UNDERDRAIN CONNECTION TO CATCH BASINS

OPTIONAL SLIDE VALVE

NOTES:
1. CATCH BASIN CONNECTIONS FROM UNDERDRAINS SERVICING PRIVATE PROPERTY ARE PROHIBITED.
2. WHEN STORMWATER FACILITY IS LOCATED > 10 FEET FROM CATCH BASIN, PROVIDE ADDITIONAL CLEANOUT OUTSIDE OF STORMWATER FACILITY WITHIN 10' OF CATCH BASIN.
3. STORMWATER FACILITY DEPICTED IS BIORETENTION PRACTICE. CONNECTIONS TO CATCH BASIN WILL ALSO APPLY TO PERMEABLE PAVEMENTS AND BIOSWALES WITH UNDERDRAINS.
4. OPTIONAL PVC GATE VALVE TO BE USED TO REGULATE FLOW IN UNDERDRAIN PIPE AS INDICATED IN PLANS. VALVE MAY ALSO BE USED IN OVERFLOW RISER AS DIRECTED.
5. WHEN CONNECTING TO A COMBINED SEWER SYSTEM, A BACKFLOW VALVE WITH SERVICE ACCESS EXTENSION IS REQUIRED AT CONNECTION BETWEEN PERFORATED AND NON-PERFORATED PIPE.
6. PVC SLOPE SHALL BE PER DESIGN MANUAL SECTION 33.14.4.4.



UNDERDRAIN AND BEDDING SECTION

			RECOMMENDED: Ravindra D Gemit	DEPUTY CHIEF ENGINEER
DATE	APPR.			
REVISED			APPROVED:	
ISSUED:				CHIEF TRANSPORTATION ENGINEER
		REFERENCE		

STORMWATER FACILITY UNDERDRAIN BEDDING AND CATCH BASIN CONNECTION

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.52

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SW-19

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

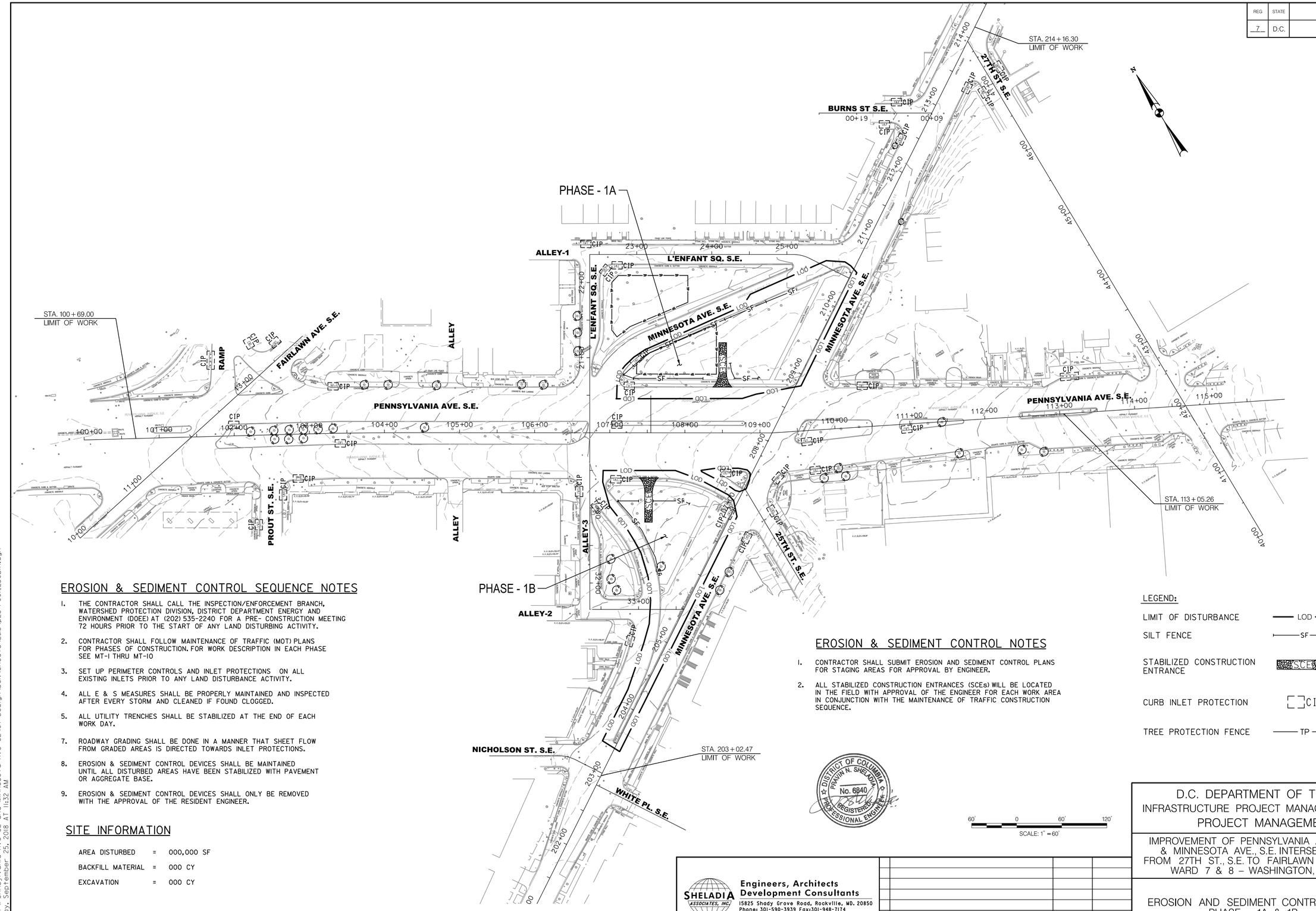
BIORETENTION DETAILS

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 82 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\SWM\pSW-0019_EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:32 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	83	197



EROSION & SEDIMENT CONTROL SEQUENCE NOTES

1. THE CONTRACTOR SHALL CALL THE INSPECTION/ENFORCEMENT BRANCH, WATERSHED PROTECTION DIVISION, DISTRICT DEPARTMENT ENERGY AND ENVIRONMENT (DOEE) AT (202) 535-2240 FOR A PRE- CONSTRUCTION MEETING 72 HOURS PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY.
2. CONTRACTOR SHALL FOLLOW MAINTENANCE OF TRAFFIC (MOT) PLANS FOR PHASES OF CONSTRUCTION. FOR WORK DESCRIPTION IN EACH PHASE SEE MT-1 THRU MT-10
3. SET UP PERIMETER CONTROLS AND INLET PROTECTIONS ON ALL EXISTING INLETS PRIOR TO ANY LAND DISTURBANCE ACTIVITY.
4. ALL E & S MEASURES SHALL BE PROPERLY MAINTAINED AND INSPECTED AFTER EVERY STORM AND CLEANED IF FOUND CLOGGED.
5. ALL UTILITY TRENCHES SHALL BE STABILIZED AT THE END OF EACH WORK DAY.
7. ROADWAY GRADING SHALL BE DONE IN A MANNER THAT SHEET FLOW FROM GRADED AREAS IS DIRECTED TOWARDS INLET PROTECTIONS.
8. EROSION & SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED WITH PAVEMENT OR AGGREGATE BASE.
9. EROSION & SEDIMENT CONTROL DEVICES SHALL ONLY BE REMOVED WITH THE APPROVAL OF THE RESIDENT ENGINEER.

SITE INFORMATION

AREA DISTURBED = 000,000 SF

BACKFILL MATERIAL = 000 CY

EXCAVATION = 000 CY

EROSION & SEDIMENT CONTROL NOTES

1. CONTRACTOR SHALL SUBMIT EROSION AND SEDIMENT CONTROL PLANS FOR STAGING AREAS FOR APPROVAL BY ENGINEER.
2. ALL STABILIZED CONSTRUCTION ENTRANCES (SCEs) WILL BE LOCATED IN THE FIELD WITH APPROVAL OF THE ENGINEER FOR EACH WORK AREA IN CONJUNCTION WITH THE MAINTENANCE OF TRAFFIC CONSTRUCTION SEQUENCE.

LEGEND:

LIMIT OF DISTURBANCE	LOD
SILT FENCE	SF
STABILIZED CONSTRUCTION ENTRANCE	SCE
CURB INLET PROTECTION	CIP
TREE PROTECTION FENCE	TP

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

ES-1

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

EROSION AND SEDIMENT CONTROL PLAN
PHASE – 1A & 1B

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 83 OF 197

SHELADIA ASSOCIATES, INC.
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15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\E&S\pES-P001_EDDBIA.dgn
Tuesday, September 25, 2018 AT 11:32 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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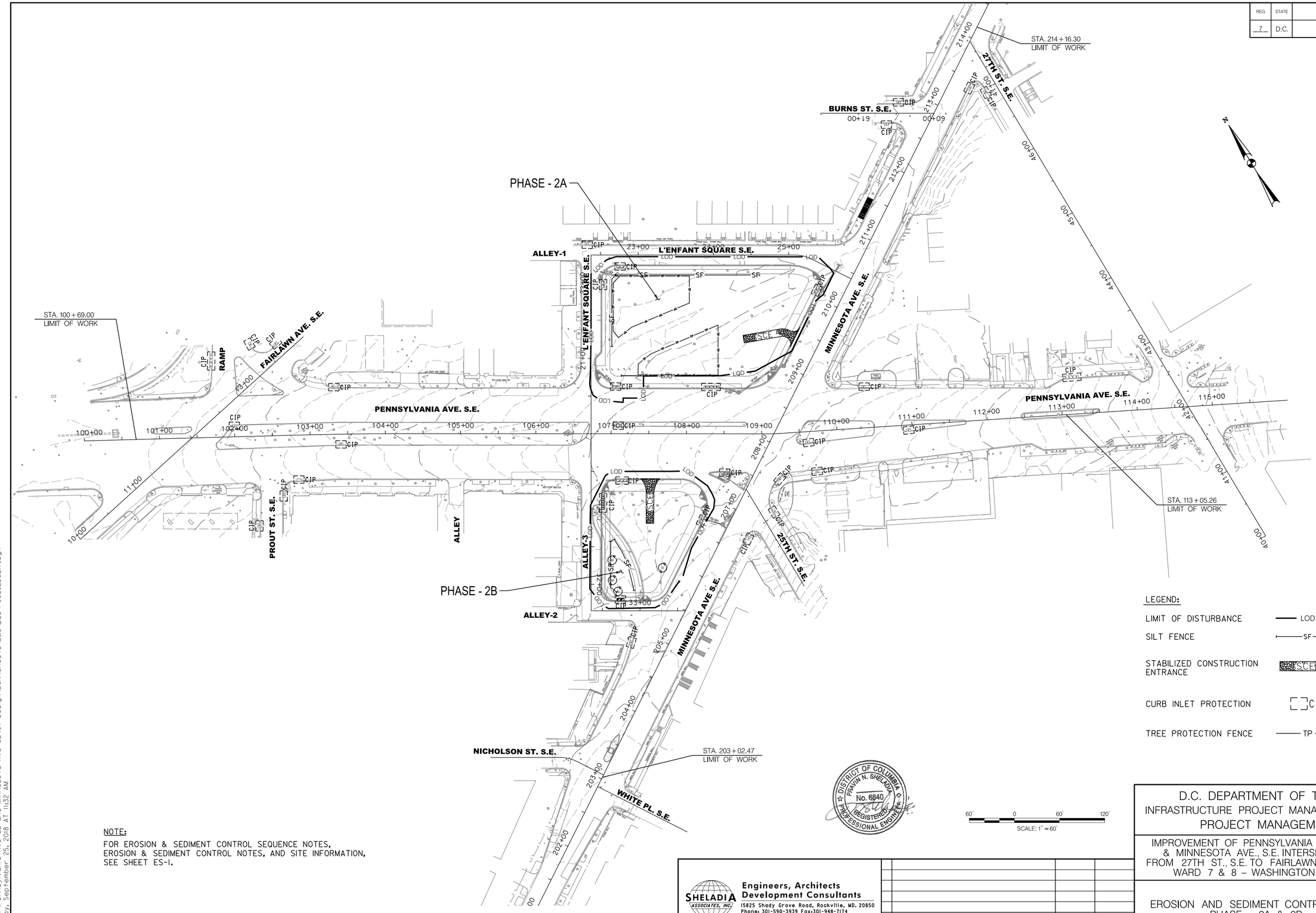


LEGEND:

LIMIT OF DISTURBANCE	LOD
SILT FENCE	SF
STABILIZED CONSTRUCTION ENTRANCE	SCE
CURB INLET PROTECTION	CIP
TREE PROTECTION FENCE	TP

NOTE:

FOR EROSION & SEDIMENT CONTROL SEQUENCE NOTES, EROSION & SEDIMENT CONTROL NOTES, AND SITE INFORMATION, SEE SHEET ES-1.

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

ES-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

EROSION AND SEDIMENT CONTROL PLAN
PHASE – 2A & 2B

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 84 OF 197

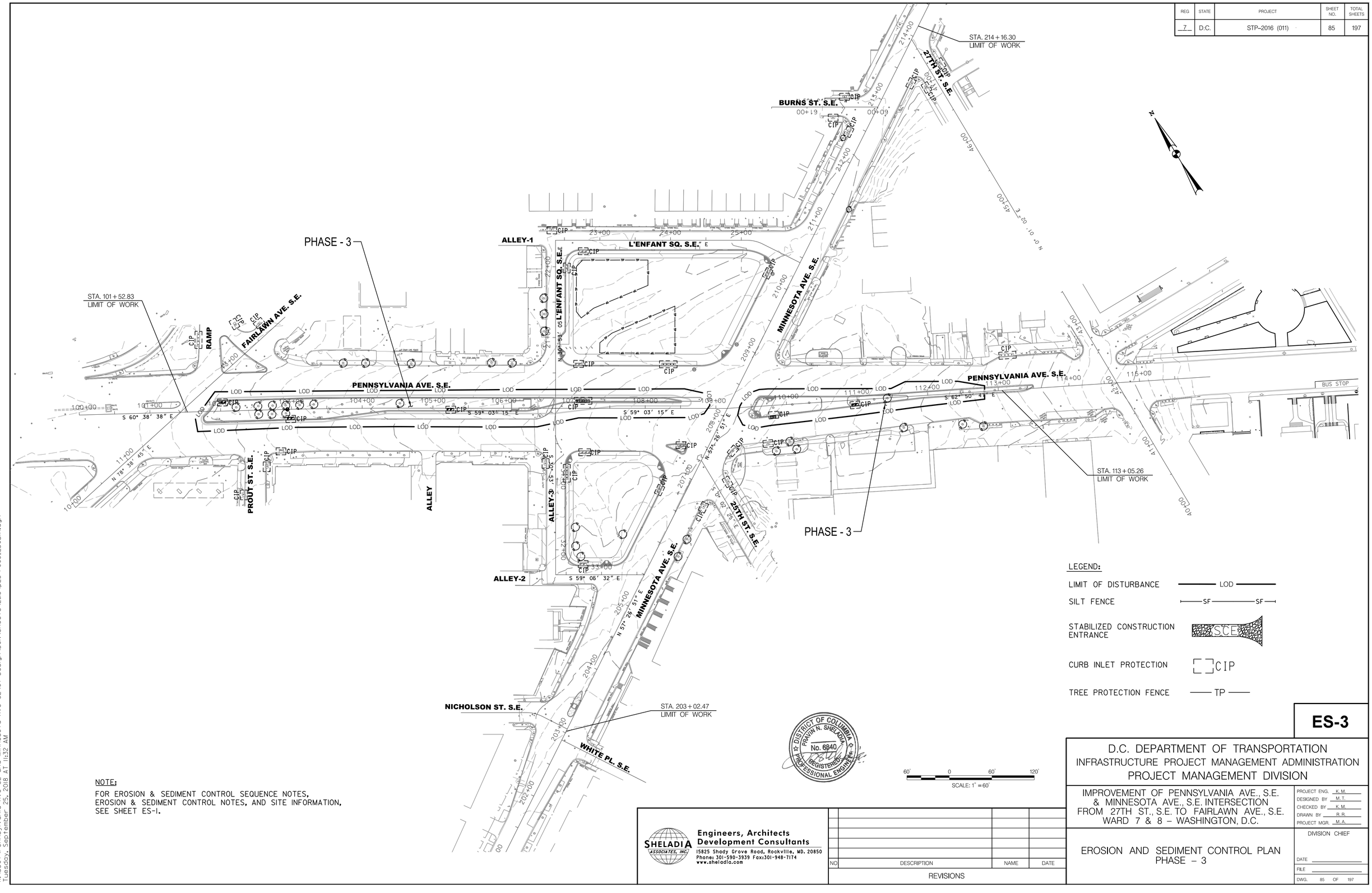
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\E&S\pES-P002.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:32 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	85	197



NOTE:

FOR EROSION & SEDIMENT CONTROL SEQUENCE NOTES, EROSION & SEDIMENT CONTROL NOTES, AND SITE INFORMATION, SEE SHEET ES-1.

LEGEND:

LIMIT OF DISTURBANCE	LOD
SILT FENCE	SF SF
STABILIZED CONSTRUCTION ENTRANCE	SCE
CURB INLET PROTECTION	CIP
TREE PROTECTION FENCE	TP

DISTRICT OF COLUMBIA · PRAVIN N. SHELDIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

60' 0 60' 120'
SCALE: 1" = 60'

ES-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

EROSION AND SEDIMENT CONTROL PLAN
PHASE – 3

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 85 OF 197

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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	86	197

PHASE - 4A

PHASE - 4A

PHASE - 4A

PHASE - 4A

PHASE - 4B

PHASE - 4C

PHASE - 4D

PHASE - 4E

PHASE - 4F

PHASE - 4G

STA. 214+16.80
LIMIT OF WORK

STA. 100+69.00
LIMIT OF WORK

STA. 113+05.26
LIMIT OF WORK

STA. 201+24.18
LIMIT OF WORK

BURNS ST. S.E.

27TH ST. S.E.

ALLEY-1

L'ENFANT SQ. S.E.

L'ENFANT SQ. S.E.

MINNESOTA AVE S.E.

FAIRLAWN AVE. S.E.

RAMP

PENNSYLVANIA AVE. S.E.

PENNSYLVANIA AVE. S.E.

PROUT ST. S.E.

ALLEY

ALLEY-2

ALLEY-3

25TH ST. S.E.

MINNESOTA AVE S.E.

NICHOLSON ST. S.E.

WHITE PL. S.E.

150' TAPER

100'

100'

205' TAPER

100'

BUS STOP

BUS STOP

LOD

SF

CIP

SCE

TP

N

LEGEND:

LIMIT OF DISTURBANCE — LOD —

SILT FENCE — SF —

STABILIZED CONSTRUCTION ENTRANCE — SCE

CURB INLET PROTECTION — CIP

TREE PROTECTION FENCE — TP —

NOTE:

FOR EROSION & SEDIMENT CONTROL SEQUENCE NOTES, EROSION & SEDIMENT CONTROL NOTES, AND SITE INFORMATION, SEE SHEET ES-1.

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

60' 0 60' 120'
SCALE: 1" = 60'

ES-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

EROSION AND SEDIMENT CONTROL PLAN
PHASE – 4A, 4B, 4C, 4D, 4E, 4F & 4G

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 86 OF 197

SHELADIA ASSOCIATES, INC.
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

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GENERAL NOTES

1. SCHEDULE AND HOLD PRE-CONSTRUCTION MEETING WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR PRIOR TO STARTING THE JOB. CALL 202-535-2977 FOR APPOINTMENT.
2. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER LATEST EDITION OF STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY THE SAME SHALL BE PROVIDED.
3. ALL DEBRIS IS TO BE REMOVED FROM SITE.
4. STREET SHALL BE SWEPT CLEAN AT ALL TIMES DURING EXCAVATION AND CONSTRUCTION.
5. ALL CATCH BASIN AND AREA DRAINS SHALL BE PROTECTED DURING EXCAVATION AND CONSTRUCTION.
6. IF ANY CATCH BASIN OR DRAIN BECOMES CLOGGED AS A RESULT OF EXCAVATION OR CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS CLEANING.
7. FOR ADDITIONAL NOTES SEE DRAWING ES-1

EROSION AND SEDIMENT CONTROL NOTES

SEQUENCE OF CONSTRUCTION NOTES:

1. ALL WORK SPECIFIED HEREIN SHALL BE PERFORMED IN STRICT CONFORMANCE WITH THE DISTRICT OF COLUMBIA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, DOE, LATEST EDITION.
2. PRIOR TO COMMENCING WITH GRADING ACTIVITIES, THE CONTRACTOR SHALL INSTALL INLET PROTECTION, TREE PROTECTION AND SILT FENCE AT THE LOCATIONS AS SHOWN ON THE PLANS.
3. AFTER ALL SEDIMENT AND EROSION CONTROL MEASURES ARE IN PLACE, THE CONTRACTOR CAN PROCEED WITH THE EXCAVATION, GRADING OF THE SITE AND TEMPORARY OR PERMANENT SEEDING. ONCE PROPERLY STABILIZED, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT AND EROSION CONTROL PROTECTIVE MEASURES PREVIOUSLY INSTALLED. WITH APPROVAL OF THE ENGINEER.
4. ANY STOCKPILING, REGARDLESS OF LOCATION, SHALL BE STABILIZED WITHIN 20 DAYS AFTER ITS ESTABLISHMENT AND FOR THE DURATION OF THE PROJECT.

EROSION AND SEDIMENT CONTROL UTILITY NOTES

1. ALL CONSTRUCTION DISCHARGE WATER SHALL BE ADEQUATELY FILTERED TO REMOVE SILT PRIOR TO DISCHARGE INTO DRAINAGE STRUCTURES.
2. TRENCH EXCAVATED AREAS ARE TO BE COMPLETELY COVERED AND SECURED WITH STEEL PLATES DURING NONE WORKING HOURS.

AIR QUALITY/DUST CONTROL NOTES:

1. THE CONTRACTOR WILL UTILIZE DUST CONTROL PROTOCOL PER 20 DCMR 605 TO INCLUDE:
   - PRACTICES AND MINIMIZES THE CREATION & DISPERSION OF DUST THROUGHOUT THE PERIOD OF THE WORK AT THE SITE
   - PROVISION OF CLEAN WATER (FREE FROM SALT, OIL, ETC.) FOR USE AT THE SITE
   - PROVISION OF WATER SPRAYING EQUIPMENT THAT CAN ACCESS THE ENTIRE WORK AREA
   - APPLICATION OF WATER SPRAY WITHOUT CREATING A NUISANCE OR PONDING & PREVENT MOVEMENT OF SPRAY BEYOND SITE BOUNDARY
2. THE CONTRACTOR WILL RESTRICT OPERATION TO PROCESSING ONLY CONCRETE MATERIALS FROM THE DEMOLISHED BUILDING.
3. THE CONTRACTOR WILL PROHIBIT IMPORTATION OF OFF-SITE MATERIALS FOR PROCESSING A PRODUCT THAT WILL NOT BE USED ON SITE.
4. THE CONTRACTOR SHALL CONDUCT OPERATION AND MAINTAIN THE PROJECT SITE SO AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
5. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
6. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLE OF ACCESSING ALL WORK AREAS.
7. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE DEMOLITION PERIODS ON-SITE. THESE CONTROL MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
8. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACE, 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 k pa) MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
9. 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 SITE BOUNDARIES.

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

ES-5

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

EROSION & SEDIMENT CONTROL STANDARD NOTES

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 87 OF 197

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REVISIONS

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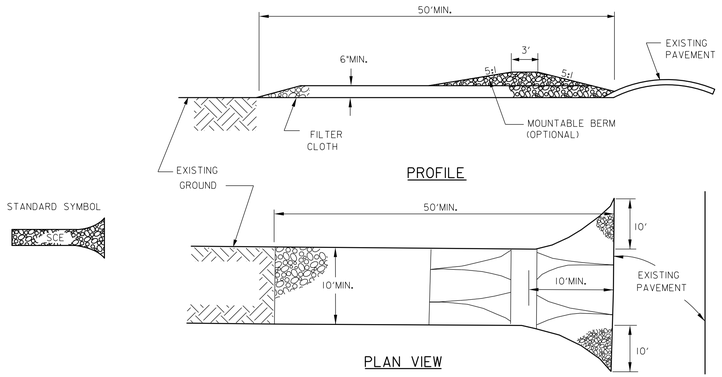
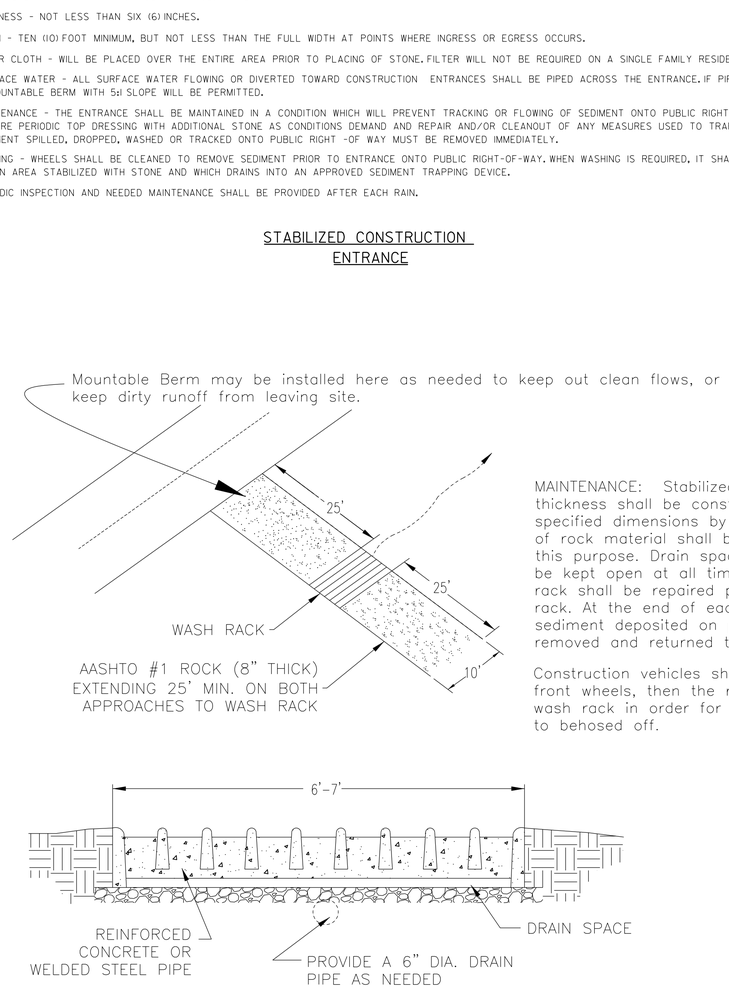


CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENNCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPE WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT -OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

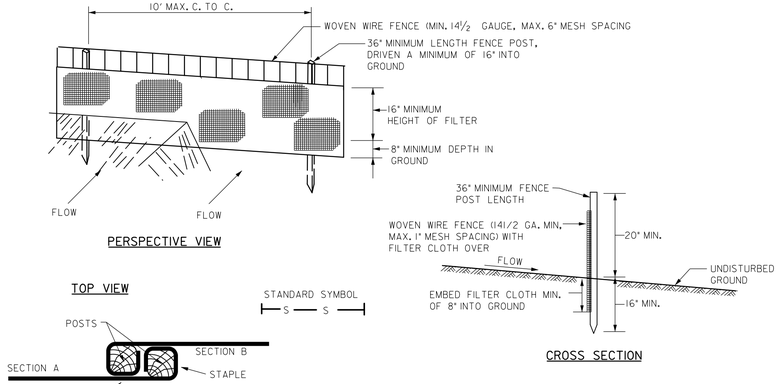


MAINTENANCE: Stabilized Construction Entrance thickness shall be constantly maintained to the specified dimensions by adding rock. A stockpile of rock material shall be maintained on site for this purpose. Drain space under wash rack shall be kept open at all times. Damage to the wash rack shall be repaired prior to further use of the rack. At the end of each construction day, all sediment deposited on paved roadways shall be removed and returned to the construction site.

Construction vehicles shall stop with first the front wheels, then the rear wheels over the wash rack in order for both sets of wheels to behosed off.

DETAIL 2 - STABILIZED CONSTRUCTION ENTRANCE WITH WASH RACK

NOT TO SCALE



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

JOINING TWO ADJACENT SILT FENCE SECTIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

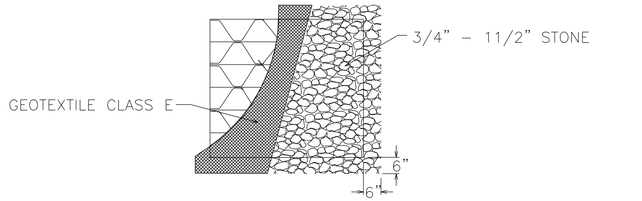
POST: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14½GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI100X, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE



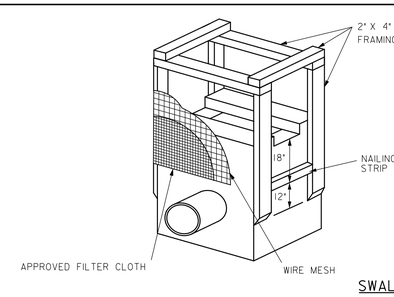
STANDARD SYMBOL
AGIP

MAX. DRAINAGE AREA = 1/4 ACRE

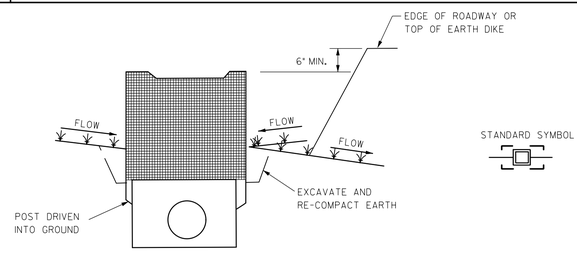
Construction Specifications

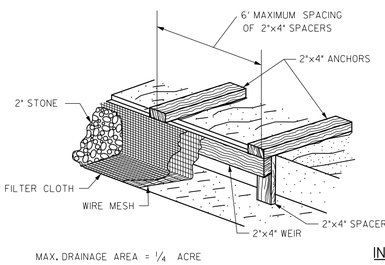
1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
2. Place 3/4" to 1 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

GRADE INLET PROTECTION



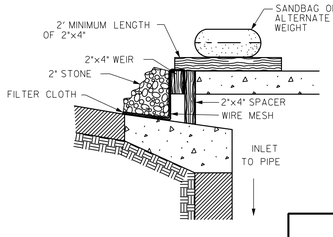
SWALE INLET PROTECTION DETAIL





MAX. DRAINAGE AREA = 1/4 ACRE

INLET PROTECTION DETAIL



CURB INLET PROTECTION DETAIL

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

ES-6

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
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REVISIONS

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PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

EROSION & SEDIMENT CONTROL STANDARD DETAILS – 1

DIVISION CHIEF
DATE
FILE
DWG. 88 OF 197

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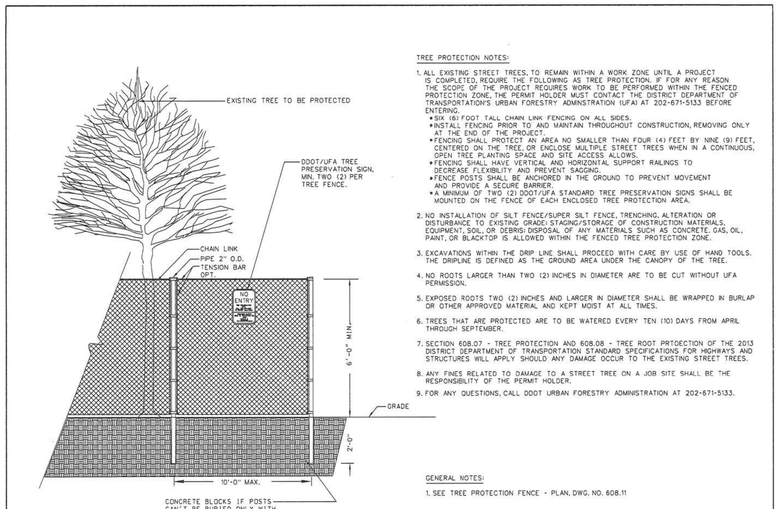


TREE PROTECTION NOTES:

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 ADMINSTRATION (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 PROTECT AN AREA NO SMALLER THAN FOUR (4) FEET BY NINE (9) 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/ 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 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 608.07 - TREE PROTECTION AND 608.08 - TREE ROOT PRTOECTION 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.

GENERAL NOTES:

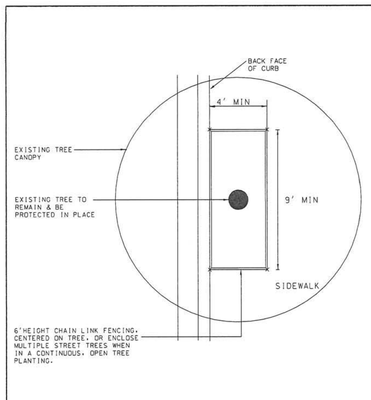
1. SEE TREE PROTECTION FENCE - PLAN, DWG. NO. 608.11

ISSUED: 8/2015	RECOMMENDED: Project Manager
REVISION / APPROVAL	APPROVED: Mohammed Khalid, Chief Engineer

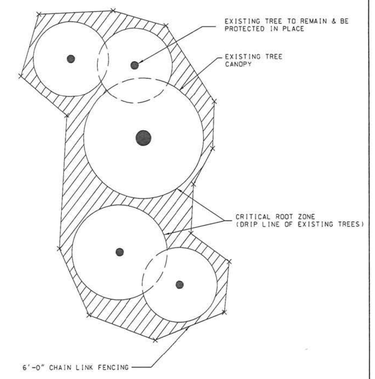
TREE PROTECTION FENCE - ELEVATION

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.10



TYPICAL STREET TREE PROTECTION



TYPICAL OPEN AREA TREE PROTECTION

NOTES:

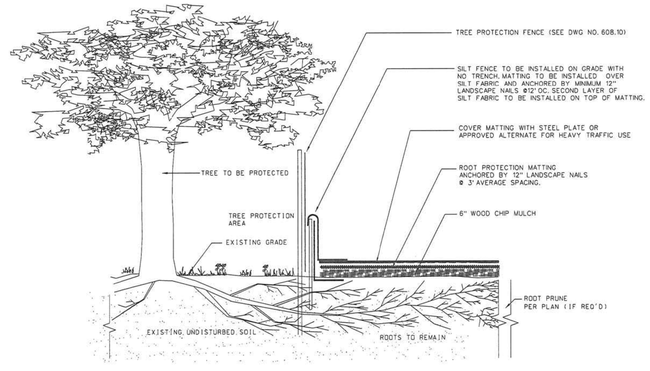
1. FOR STREET TREES (TREES PLANTED IN THE TREE PLANTING SPACE BETWEEN CURB AND SIDEWALK), REFER TO DETAIL ABOVE LABELED "TYPICAL STREET TREE PROTECTION" FOR TREES IN OPEN AREAS (PUBLIC PARKING BEHIND SIDEWALK OR PARK SPACE), REFER TO DETAIL ABOVE LABELED "TYPICAL OPEN AREA TREE PROTECTION".
2. SEE TREE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

ISSUED: 8/2015	RECOMMENDED: 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



NOTES:

1. MATTING MATERIAL SHALL BE DOUBLE SIDED GEOCOMPOSITE, GEONET CORE WITH NON-WOVEN COVERING (SUCH AS TENSAR ROADRAIN RD7) OR APPROVED EQUIVALENT.
2. ROOT PROTECTION MATTING SHALL BE INSTALLED BY A CERTIFIED ARBORIST.
3. TO BE USED FOR DESIGNATED TEMPORARY CONSTRUCTION ACCESS AND STOCKPILE AREAS.
4. MATTING SHALL BE PLACED ON 6" WOOD CHIP MULCH UNLESS OTHERWISE DIRECTED.
5. FOR HEAVY TRAFFIC AREAS, MATTING SHALL BE COVERED WITH STEEL PLATES.

ISSUED: 8/2015	RECOMMENDED: Project Manager
REVISION / APPROVAL	APPROVED: Mohammed Khalid, Chief Engineer

TREE ROOT PROTECTION W/SILT FENCE

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.12

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

ES-7

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

EROSION & SEDIMENT CONTROL STANDARD DETAILS – 2

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 89 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

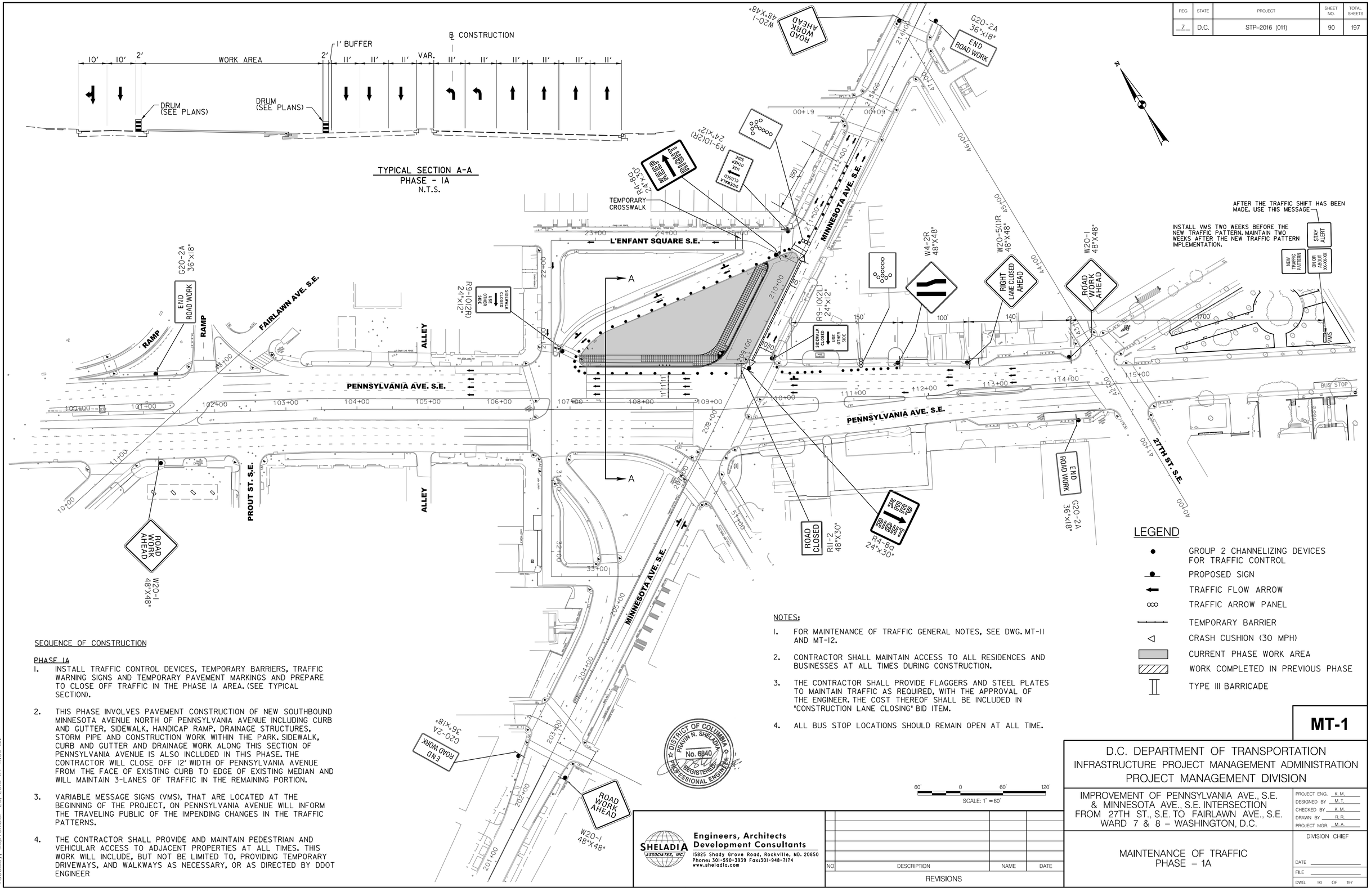
NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\E&S\pES-D003_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:32 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	90	197

TYPICAL SECTION A-A
PHASE - IA
N.T.S.



SEQUENCE OF CONSTRUCTION

PHASE IA

1. INSTALL TRAFFIC CONTROL DEVICES, TEMPORARY BARRIERS, TRAFFIC WARNING SIGNS AND TEMPORARY PAVEMENT MARKINGS AND PREPARE TO CLOSE OFF TRAFFIC IN THE PHASE IA AREA. (SEE TYPICAL SECTION).

2. THIS PHASE INVOLVES PAVEMENT CONSTRUCTION OF NEW SOUTHBOUND MINNESOTA AVENUE NORTH OF PENNSYLVANIA AVENUE INCLUDING CURB AND GUTTER, SIDEWALK, HANDICAP RAMP, DRAINAGE STRUCTURES, STORM PIPE AND CONSTRUCTION WORK WITHIN THE PARK. SIDEWALK, CURB AND GUTTER AND DRAINAGE WORK ALONG THIS SECTION OF PENNSYLVANIA AVENUE IS ALSO INCLUDED IN THIS PHASE. THE CONTRACTOR WILL CLOSE OFF 12′ WIDTH OF PENNSYLVANIA AVENUE FROM THE FACE OF EXISTING CURB TO EDGE OF EXISTING MEDIAN AND WILL MAINTAIN 3-LANES OF TRAFFIC IN THE REMAINING PORTION.

3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS.

4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. ALL BUS STOP LOCATIONS SHOULD REMAIN OPEN AT ALL TIME.

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- TEMPORARY BARRIER
- CRASH CUSHION (30 MPH)
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

60′ 0 60′ 120′
SCALE: 1" = 60′

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

MT-1

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 1A

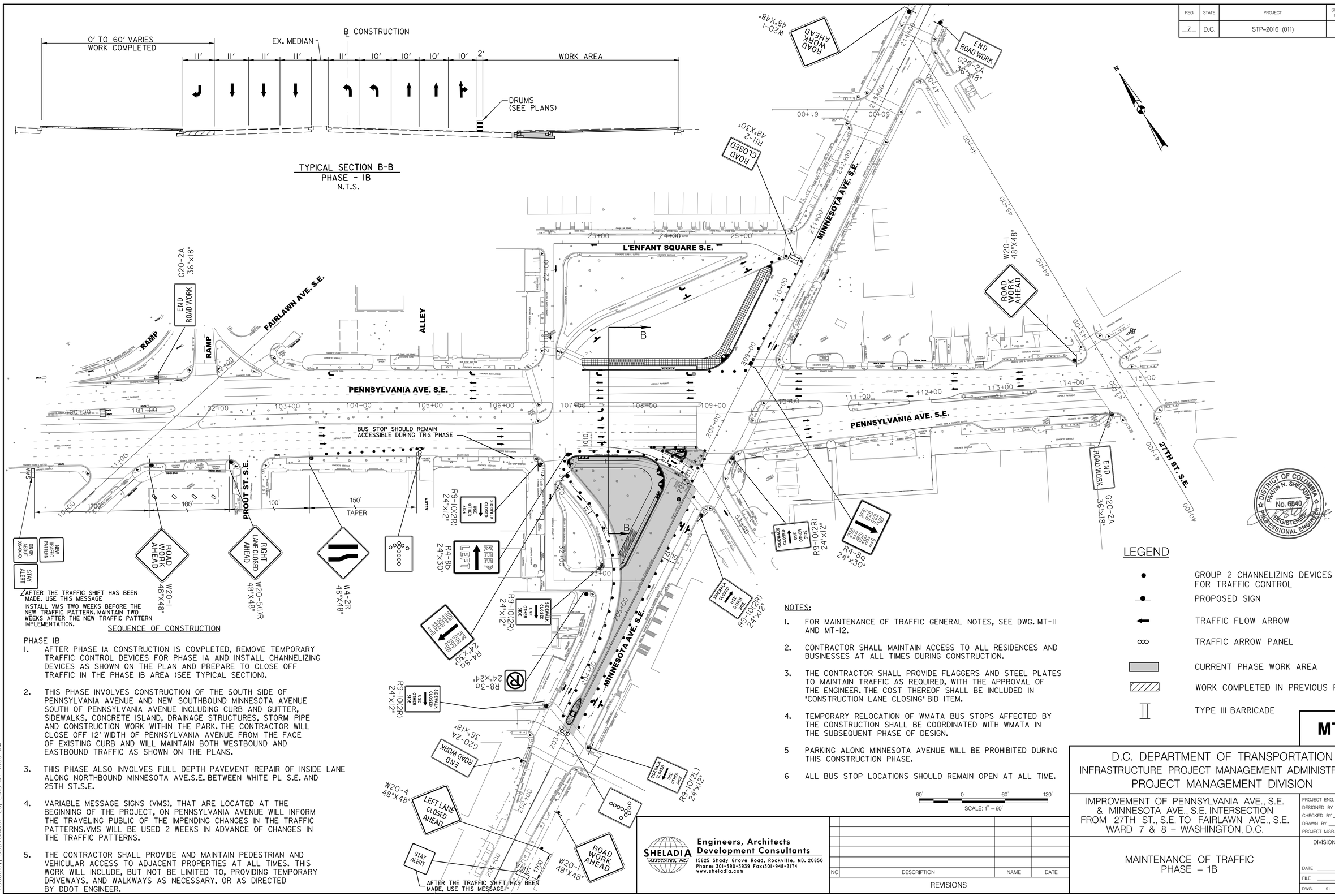
PROJECT ENG.	K. M.
DESIGNED BY	M. T.
CHECKED BY	K. M.
DRAWN BY	R. R.
PROJECT MGR.	M. A.

DIVISION CHIEF
DATE
FILE
DWG. 90 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P001_ED08IA.dgn
Tuesday, September 25, 2018 AT 11:33 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	91	197

TYPICAL SECTION B-B
PHASE - IB
N.T.S.



SEQUENCE OF CONSTRUCTION

PHASE IB

1. AFTER PHASE IA CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE IA AND INSTALL CHANNELIZING DEVICES AS SHOWN ON THE PLAN AND PREPARE TO CLOSE OFF TRAFFIC IN THE PHASE IB AREA (SEE TYPICAL SECTION).

2. THIS PHASE INVOLVES CONSTRUCTION OF THE SOUTH SIDE OF PENNSYLVANIA AVENUE AND NEW SOUTHBOUND MINNESOTA AVENUE SOUTH OF PENNSYLVANIA AVENUE INCLUDING CURB AND GUTTER, SIDEWALKS, CONCRETE ISLAND, DRAINAGE STRUCTURES, STORM PIPE AND CONSTRUCTION WORK WITHIN THE PARK. THE CONTRACTOR WILL CLOSE OFF 12' WIDTH OF PENNSYLVANIA AVENUE FROM THE FACE OF EXISTING CURB AND WILL MAINTAIN BOTH WESTBOUND AND EASTBOUND TRAFFIC AS SHOWN ON THE PLANS.

3. THIS PHASE ALSO INVOLVES FULL DEPTH PAVEMENT REPAIR OF INSIDE LANE ALONG NORTHBOUND MINNESOTA AVE.S.E. BETWEEN WHITE PL S.E. AND 25TH ST.S.E.

4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS.VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.

5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

NOTES;

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. PARKING ALONG MINNESOTA AVENUE WILL BE PROHIBITED DURING THIS CONSTRUCTION PHASE.
6. ALL BUS STOP LOCATIONS SHOULD REMAIN OPEN AT ALL TIME.

SCALE: 1" = 60'

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6940 · REGISTERED PROFESSIONAL ENGINEER

MT-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

MAINTENANCE OF TRAFFIC
PHASE – 1B

DIVISION CHIEF
DATE
FILE
DWG. 91 OF 197

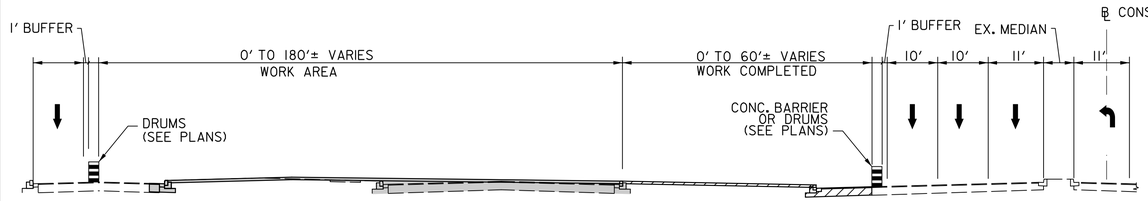
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

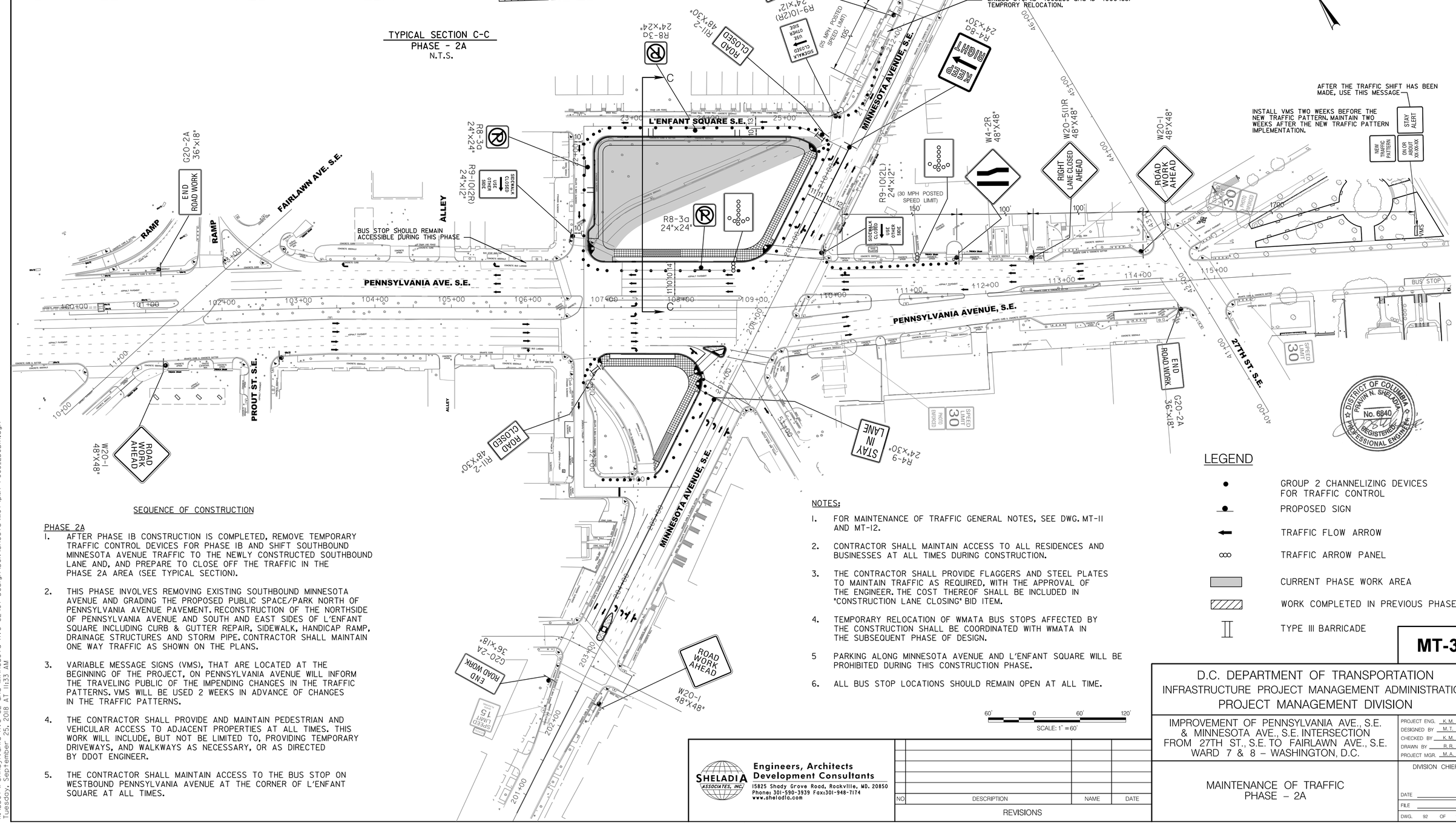
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P002_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:33 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	92	197



TYPICAL SECTION C-C
PHASE - 2A
N.T.S.



SEQUENCE OF CONSTRUCTION

PHASE 2A

1. AFTER PHASE IB CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE IB AND SHIFT SOUTHBOUND MINNESOTA AVENUE TRAFFIC TO THE NEWLY CONSTRUCTED SOUTHBOUND LANE AND, AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 2A AREA (SEE TYPICAL SECTION).

2. THIS PHASE INVOLVES REMOVING EXISTING SOUTHBOUND MINNESOTA AVENUE AND GRADING THE PROPOSED PUBLIC SPACE/PARK NORTH OF PENNSYLVANIA AVENUE PAVEMENT. RECONSTRUCTION OF THE NORTHSIDE OF PENNSYLVANIA AVENUE AND SOUTH AND EAST SIDES OF L'ENFANT SQUARE INCLUDING CURB & GUTTER REPAIR, SIDEWALK, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE. CONTRACTOR SHALL MAINTAIN ONE WAY TRAFFIC AS SHOWN ON THE PLANS.

3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.

4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE BUS STOP ON WESTBOUND PENNSYLVANIA AVENUE AT THE CORNER OF L'ENFANT SQUARE AT ALL TIMES.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. PARKING ALONG MINNESOTA AVENUE AND L'ENFANT SQUARE WILL BE PROHIBITED DURING THIS CONSTRUCTION PHASE.
6. ALL BUS STOP LOCATIONS SHOULD REMAIN OPEN AT ALL TIME.

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

SCALE: 1" = 60'

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

MT-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 2A

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 92 OF 197

SHELADIA ASSOCIATES, INC.
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Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

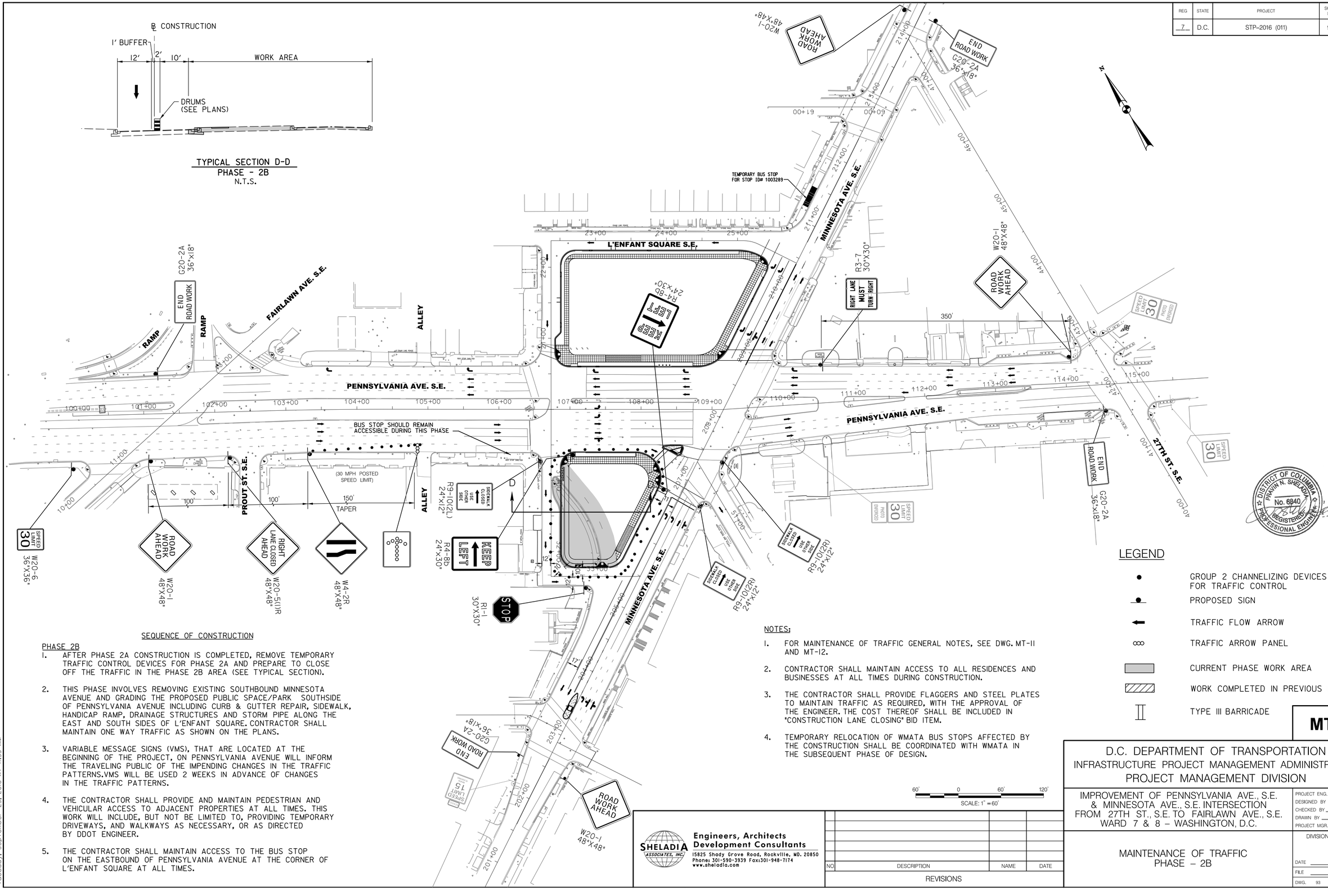
NO.	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P003.EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:33 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	93	197

TYPICAL SECTION D-D
PHASE - 2B
N.T.S.



SEQUENCE OF CONSTRUCTION

PHASE 2B

1. AFTER PHASE 2A CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 2A AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 2B AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES REMOVING EXISTING SOUTHBOUND MINNESOTA AVENUE AND GRADING THE PROPOSED PUBLIC SPACE/PARK SOUTHSIDE OF PENNSYLVANIA AVENUE INCLUDING CURB & GUTTER REPAIR, SIDEWALK, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE ALONG THE EAST AND SOUTH SIDES OF L'ENFANT SQUARE. CONTRACTOR SHALL MAINTAIN ONE WAY TRAFFIC AS SHOWN ON THE PLANS.
3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS.VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE BUS STOP ON THE EASTBOUND OF PENNSYLVANIA AVENUE AT THE CORNER OF L'ENFANT SQUARE AT ALL TIMES.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

60' 0 60' 120'
SCALE: 1" = 60'

DISTRICT OF COLUMBIA · IRWIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

MT-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 2B

PROJECT ENG.	K. M.
DESIGNED BY	M. T.
CHECKED BY	K. M.
DRAWN BY	R. R.
PROJECT MGR.	M. A.

DIVISION CHIEF
DATE
FILE
DWG. 93 OF 197

NO	DESCRIPTION	NAME	DATE

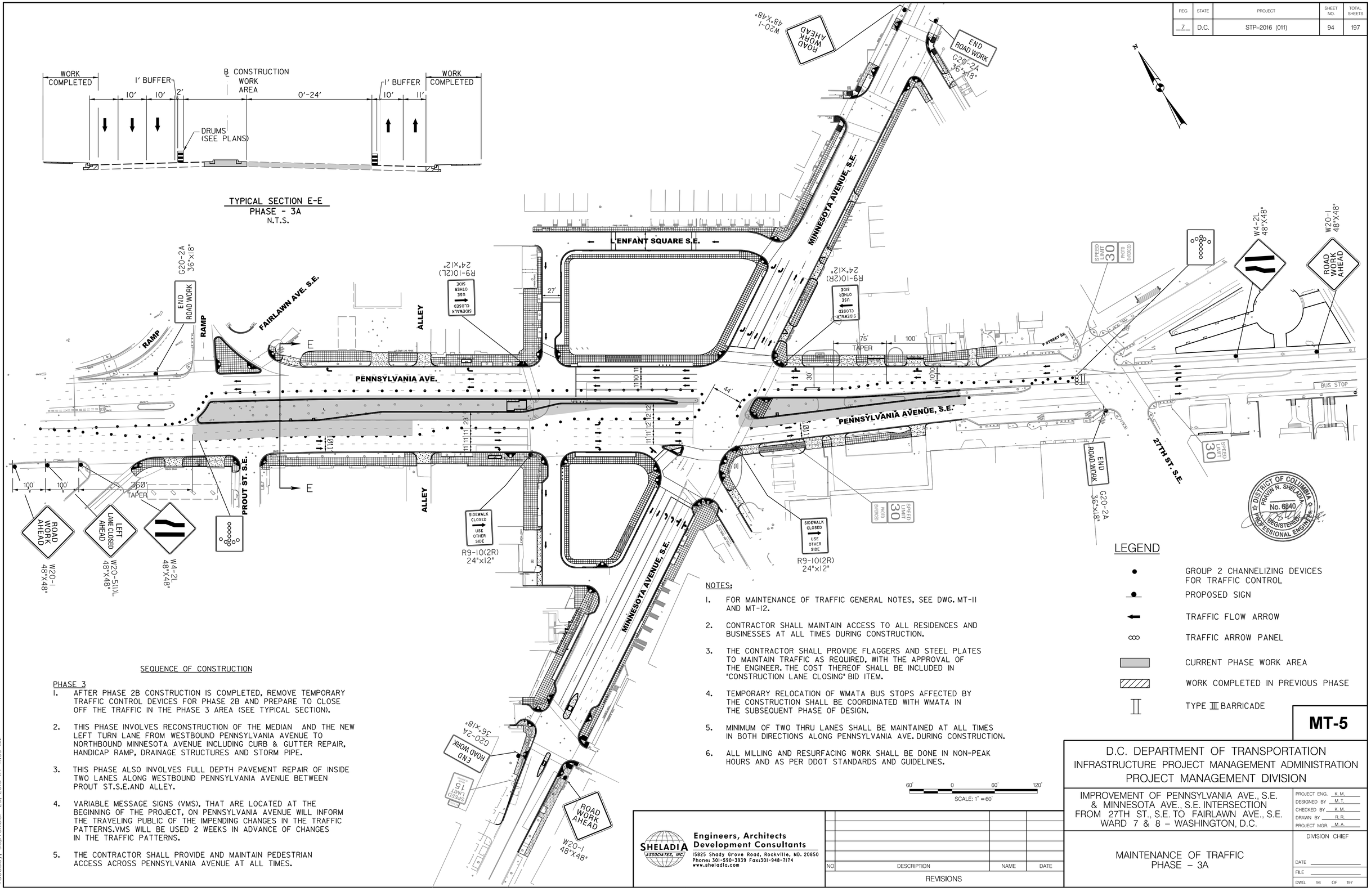
REVISIONS

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\02N\Sheets\MOT\pMT-P004_E00B1A.dgn
Tuesday, September 25, 2018 AT 11:33 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	94	197

TYPICAL SECTION E-E
PHASE - 3A
N.T.S.



SEQUENCE OF CONSTRUCTION

PHASE 3

1. AFTER PHASE 2B CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 2B AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 3 AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES RECONSTRUCTION OF THE MEDIAN AND THE NEW LEFT TURN LANE FROM WESTBOUND PENNSYLVANIA AVENUE TO NORTHBOUND MINNESOTA AVENUE INCLUDING CURB & GUTTER REPAIR, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE.
3. THIS PHASE ALSO INVOLVES FULL DEPTH PAVEMENT REPAIR OF INSIDE TWO LANES ALONG WESTBOUND PENNSYLVANIA AVENUE BETWEEN PROUT ST.S.E.AND ALLEY.
4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS.VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN ACCESS ACROSS PENNSYLVANIA AVENUE AT ALL TIMES.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. MINIMUM OF TWO THRU LANES SHALL BE MAINTAINED AT ALL TIMES IN BOTH DIRECTIONS ALONG PENNSYLVANIA AVE. DURING CONSTRUCTION.
6. ALL MILLING AND RESURFACING WORK SHALL BE DONE IN NON-PEAK HOURS AND AS PER DDOT STANDARDS AND GUIDELINES.

60' 0 60' 120'
SCALE: 1" = 60'

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

MT-5

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 3A

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 94 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

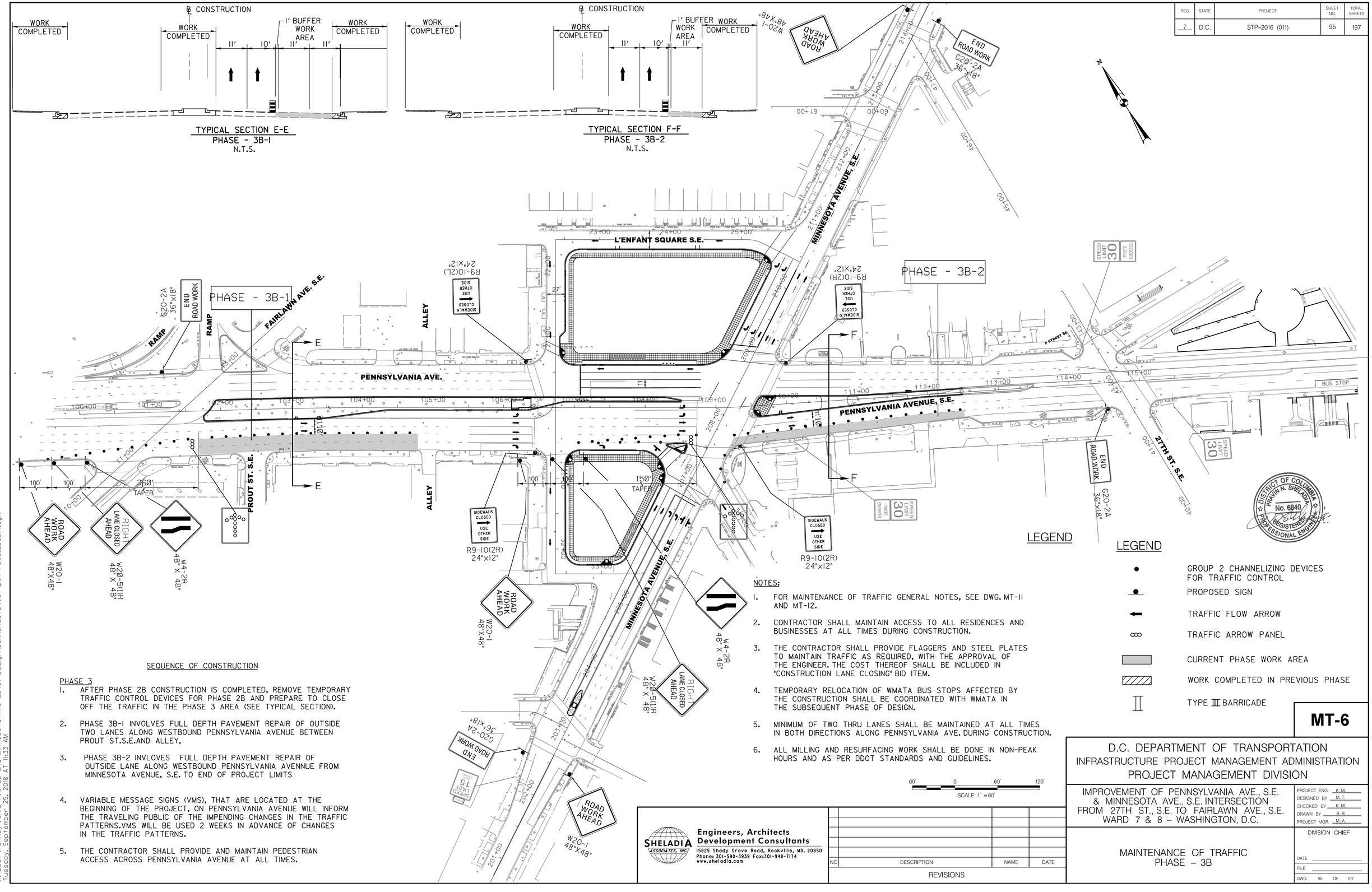
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P005_ED08IA.dgn
Tuesday, September 25, 2018 AT 11:33 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	95	197

TYPICAL SECTION E-E
PHASE - 3B-1
N.T.S.

TYPICAL SECTION F-F
PHASE - 3B-2
N.T.S.



SEQUENCE OF CONSTRUCTION

PHASE 3

1. AFTER PHASE 2B CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 2B AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 3 AREA (SEE TYPICAL SECTION).
2. PHASE 3B-1 INVOLVES FULL DEPTH PAVEMENT REPAIR OF OUTSIDE TWO LANES ALONG WESTBOUND PENNSYLVANIA AVENUE BETWEEN PROUT ST.S.E.AND ALLEY,
3. PHASE 3B-2 INVLOVES FULL DEPTH PAVEMENT REPAIR OF OUTSIDE LANE ALONG WESTBOUND PENNSYLVANIA AVENNUE FROM MINNESOTA AVENUE, S.E. TO END OF PROJECT LIMITS
4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS.VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN ACCESS ACROSS PENNSYLVANIA AVENUE AT ALL TIMES.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. MINIMUM OF TWO THRU LANES SHALL BE MAINTAINED AT ALL TIMES IN BOTH DIRECTIONS ALONG PENNSYLVANIA AVE. DURING CONSTRUCTION.
6. ALL MILLING AND RESURFACING WORK SHALL BE DONE IN NON-PEAK HOURS AND AS PER DDOT STANDARDS AND GUIDELINES.

60' 0 60' 120'
SCALE: 1" = 60'

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

MT-6

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 3B

PROJECT ENG.	K. M.
DESIGNED BY	M. T.
CHECKED BY	K. M.
DRAWN BY	R. R.
PROJECT MGR.	M. A.

DIVISION CHIEF
DATE
FILE
DWG. 95 OF 197

NO.	DESCRIPTION	NAME	DATE

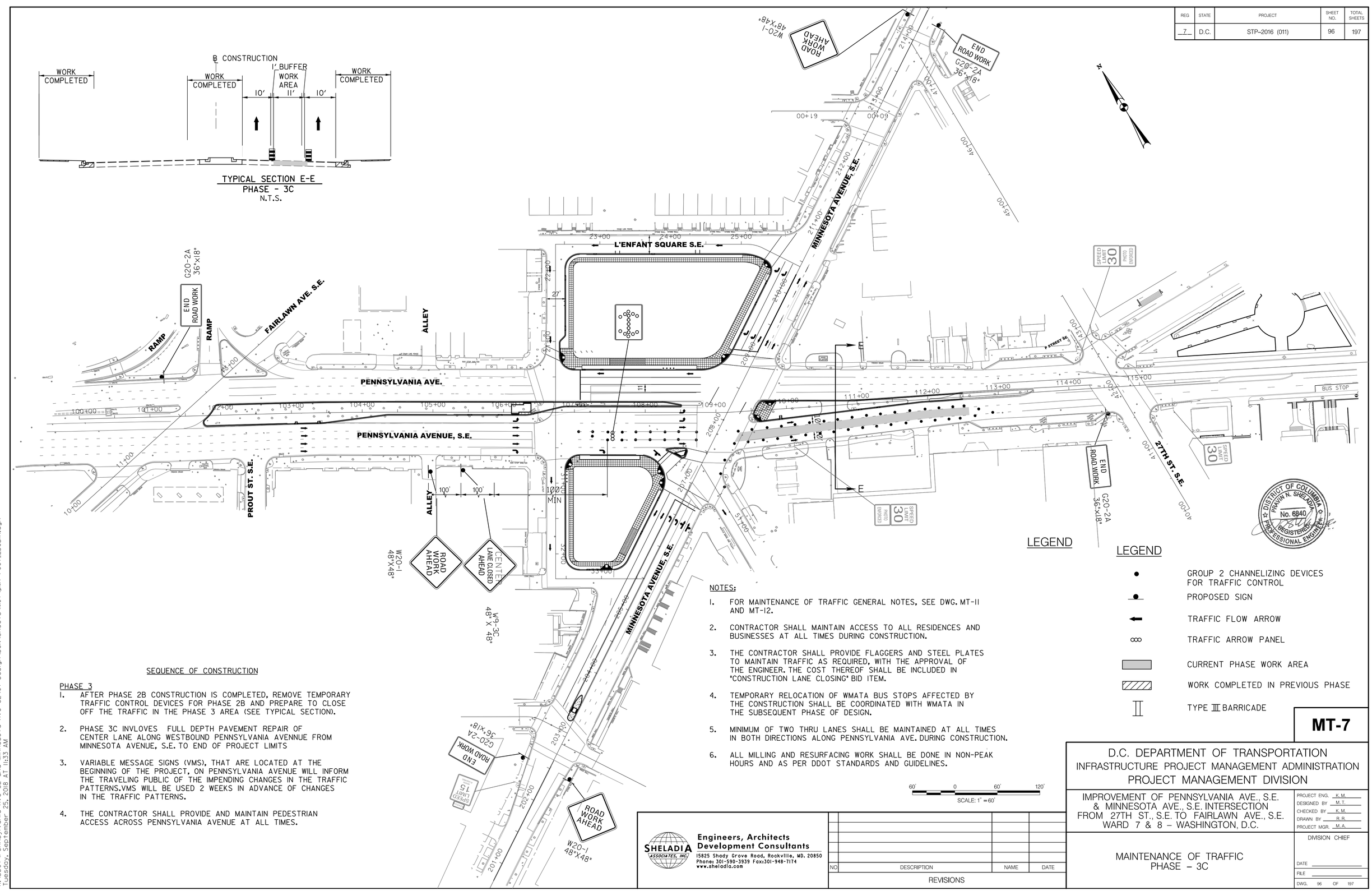
REVISIONS

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P006_ED0B1A.dgn
Tuesday, September 25, 2018 AT 11:33 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	96	197

TYPICAL SECTION E-E
PHASE - 3C
N.T.S.



SEQUENCE OF CONSTRUCTION

PHASE 3

1. AFTER PHASE 2B CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 2B AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 3 AREA (SEE TYPICAL SECTION).
2. PHASE 3C INVLOVES FULL DEPTH PAVEMENT REPAIR OF CENTER LANE ALONG WESTBOUND PENNSYLVANIA AVENNUE FROM MINNESOTA AVENUE, S.E. TO END OF PROJECT LIMITS
3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS.VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN ACCESS ACROSS PENNSYLVANIA AVENUE AT ALL TIMES.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. MINIMUM OF TWO THRU LANES SHALL BE MAINTAINED AT ALL TIMES IN BOTH DIRECTIONS ALONG PENNSYLVANIA AVE. DURING CONSTRUCTION.
6. ALL MILLING AND RESURFACING WORK SHALL BE DONE IN NON-PEAK HOURS AND AS PER DDOT STANDARDS AND GUIDELINES.

LEGEND

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

60' 0 60' 120'
SCALE: 1" = 60'

DISTRICT OF COLUMBIA
PRAWIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

MT-7

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF

MAINTENANCE OF TRAFFIC
PHASE – 3C

DATE
FILE
DWG. 96 OF 197

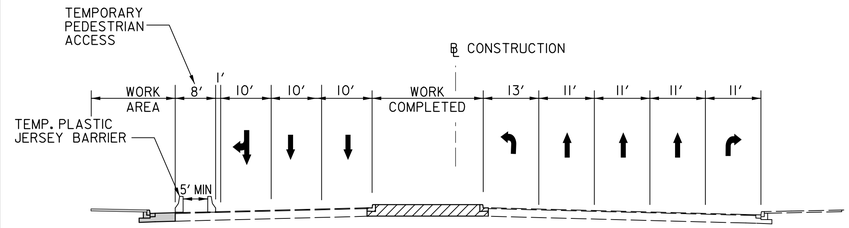
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

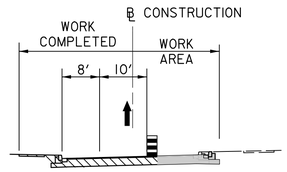
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P007_EDOBJA.dgn
Tuesday, September 25, 2018 AT 11:33 AM

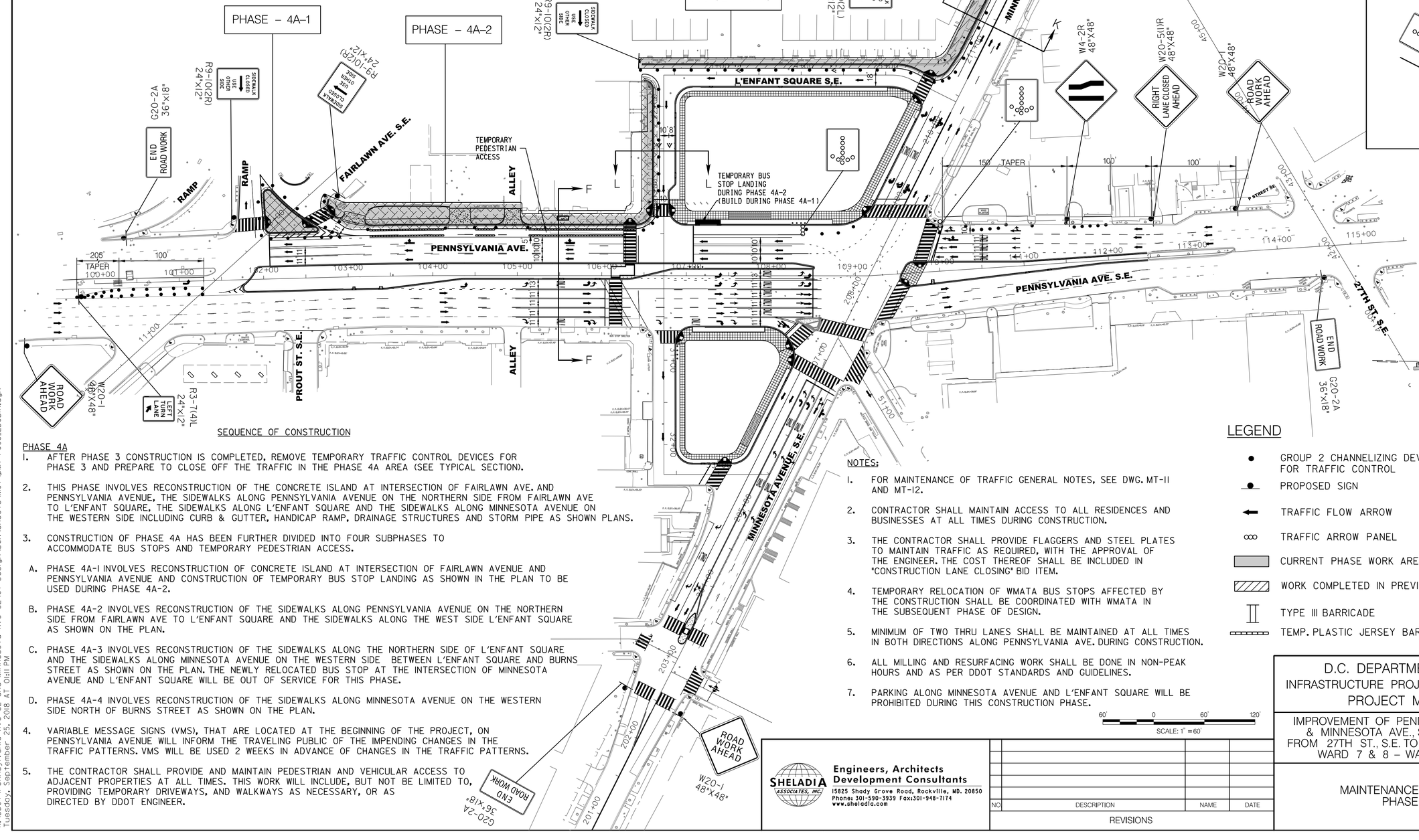
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	97	197

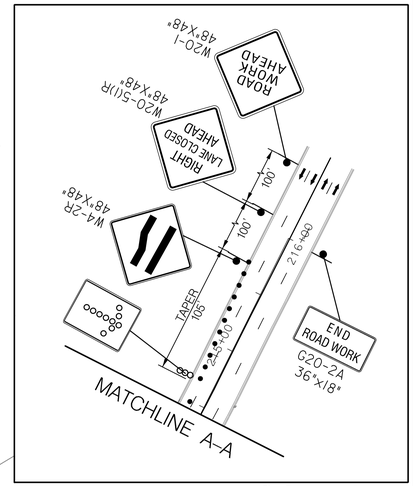


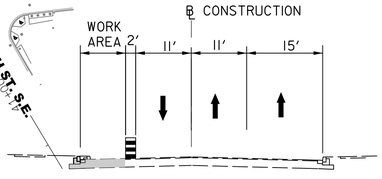
TYPICAL SECTION F-F
PHASE - 4A
N.T.S.



TYPICAL SECTION L-L
PHASE - 4A
N.T.S.







TYPICAL SECTION K-K
PHASE - 4A
N.T.S.

SEQUENCE OF CONSTRUCTION

PHASE 4A

1. AFTER PHASE 3 CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 3 AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4A AREA (SEE TYPICAL SECTION).

2. THIS PHASE INVOLVES RECONSTRUCTION OF THE CONCRETE ISLAND AT INTERSECTION OF FAIRLAWN AVE. AND PENNSYLVANIA AVENUE, THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE NORTHERN SIDE FROM FAIRLAWN AVE TO L'ENFANT SQUARE, THE SIDEWALKS ALONG L'ENFANT SQUARE AND THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE WESTERN SIDE INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.

3. CONSTRUCTION OF PHASE 4A HAS BEEN FURTHER DIVIDED INTO FOUR SUBPHASES TO ACCOMMODATE BUS STOPS AND TEMPORARY PEDESTRIAN ACCESS.

A. PHASE 4A-1 INVOLVES RECONSTRUCTION OF CONCRETE ISLAND AT INTERSECTION OF FAIRLAWN AVENUE AND PENNSYLVANIA AVENUE AND CONSTRUCTION OF TEMPORARY BUS STOP LANDING AS SHOWN IN THE PLAN TO BE USED DURING PHASE 4A-2.

B. PHASE 4A-2 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE NORTHERN SIDE FROM FAIRLAWN AVE TO L'ENFANT SQUARE AND THE SIDEWALKS ALONG THE WEST SIDE L'ENFANT SQUARE AS SHOWN ON THE PLAN.

C. PHASE 4A-3 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG THE NORTHERN SIDE OF L'ENFANT SQUARE AND THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE WESTERN SIDE BETWEEN L'ENFANT SQUARE AND BURNS STREET AS SHOWN ON THE PLAN. THE NEWLY RELOCATED BUS STOP AT THE INTERSECTION OF MINNESOTA AVENUE AND L'ENFANT SQUARE WILL BE OUT OF SERVICE FOR THIS PHASE.

D. PHASE 4A-4 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE WESTERN SIDE NORTH OF BURNS STREET AS SHOWN ON THE PLAN.

4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.

5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. MINIMUM OF TWO THRU LANES SHALL BE MAINTAINED AT ALL TIMES IN BOTH DIRECTIONS ALONG PENNSYLVANIA AVE. DURING CONSTRUCTION.
6. ALL MILLING AND RESURFACING WORK SHALL BE DONE IN NON-PEAK HOURS AND AS PER DDOT STANDARDS AND GUIDELINES.
7. PARKING ALONG MINNESOTA AVENUE AND L'ENFANT SQUARE WILL BE PROHIBITED DURING THIS CONSTRUCTION PHASE.

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE
- TEMP. PLASTIC JERSEY BARRIER
- SUBPHASE 4A-1
- SUBPHASE 4A-2
- SUBPHASE 4A-3
- SUBPHASE 4A-4

60' 0 60' 120'
SCALE: 1" = 60'

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

MT-8

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 4A

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.
DIVISION CHIEF
DATE
FILE
DWG. 97 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

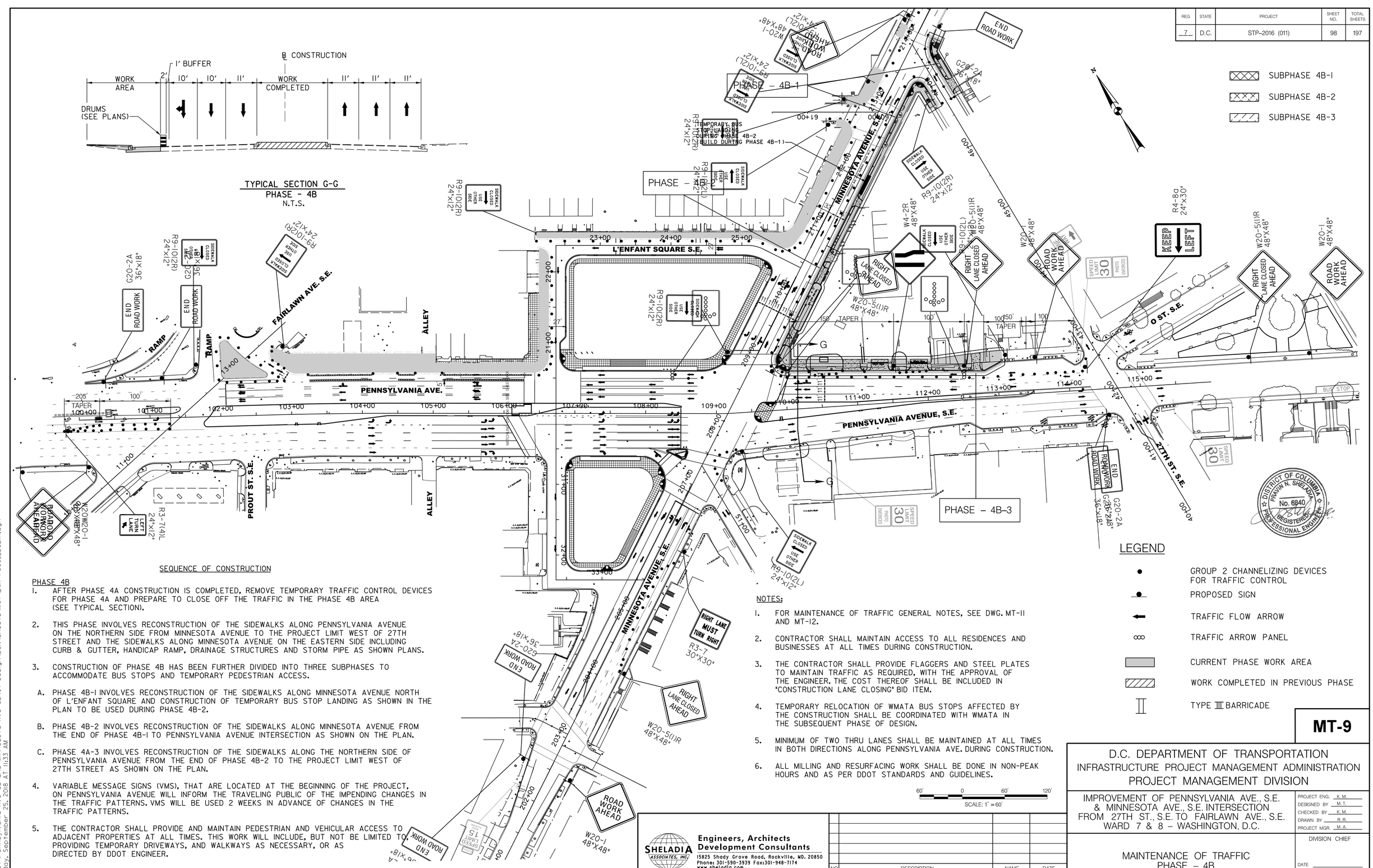
NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P008.EDOBIA.dgn
Tuesday, September 25, 2018 AT 01:11 PM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	98	197

TYPICAL SECTION G-G
PHASE - 4B
N.T.S.



SEQUENCE OF CONSTRUCTION

PHASE 4B

1. AFTER PHASE 4A CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 4A AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4B AREA (SEE TYPICAL SECTION).

2. THIS PHASE INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE NORTHERN SIDE FROM MINNESOTA AVENUE TO THE PROJECT LIMIT WEST OF 27TH STREET AND THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE EASTERN SIDE INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.

3. CONSTRUCTION OF PHASE 4B HAS BEEN FURTHER DIVIDED INTO THREE SUBPHASES TO ACCOMMODATE BUS STOPS AND TEMPORARY PEDESTRIAN ACCESS.

A. PHASE 4B-1 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG MINNESOTA AVENUE NORTH OF L'ENFANT SQUARE AND CONSTRUCTION OF TEMPORARY BUS STOP LANDING AS SHOWN IN THE PLAN TO BE USED DURING PHASE 4B-2.

B. PHASE 4B-2 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG MINNESOTA AVENUE FROM THE END OF PHASE 4B-1 TO PENNSYLVANIA AVENUE INTERSECTION AS SHOWN ON THE PLAN.

C. PHASE 4A-3 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG THE NORTHERN SIDE OF PENNSYLVANIA AVENUE FROM THE END OF PHASE 4B-2 TO THE PROJECT LIMIT WEST OF 27TH STREET AS SHOWN ON THE PLAN.

4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.

5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. MINIMUM OF TWO THRU LANES SHALL BE MAINTAINED AT ALL TIMES IN BOTH DIRECTIONS ALONG PENNSYLVANIA AVE. DURING CONSTRUCTION.
6. ALL MILLING AND RESURFACING WORK SHALL BE DONE IN NON-PEAK HOURS AND AS PER DDOT STANDARDS AND GUIDELINES.

SCALE: 1" = 60'

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

MT-9

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 4B

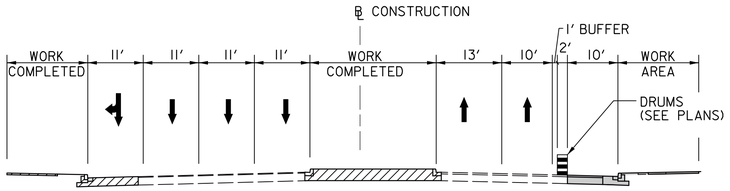
PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 98 OF 197

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER

k:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P009_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:33 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	99	197



TYPICAL SECTION H-H
PHASE - 4B
N.T.S.

SEQUENCE OF CONSTRUCTION

PHASE 4C

1. AFTER PHASE 4B CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 4D AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4C AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE SOUTH SIDE FROM MINNESOTA AVENUE TO THE PROJECT LIMIT WEST OF 27TH STREET AND THE SIDEWALKS ALONG NORTH 25TH STREET INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.
3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.
5. THIS PHASE HAVE FOUR TREES THAT WILL REQUIRE PROTECTION. THE CONTRACTOR SHALL PROTECT THESE TREES PER DDOT STANDARD DURING CONSTRUCTION.

NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. MINIMUM OF TWO THRU LANES SHALL BE MAINTAINED AT ALL TIMES IN BOTH DIRECTIONS ALONG PENNSYLVANIA AVE. DURING CONSTRUCTION.
6. ALL MILLING AND RESURFACING WORK SHALL BE DONE IN NON-PEAK HOURS AND AS PER DDOT STANDARDS AND GUIDELINES.

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

SCALE: 1" = 60'

MT-10

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 4C

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 99 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P010_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:33 AM

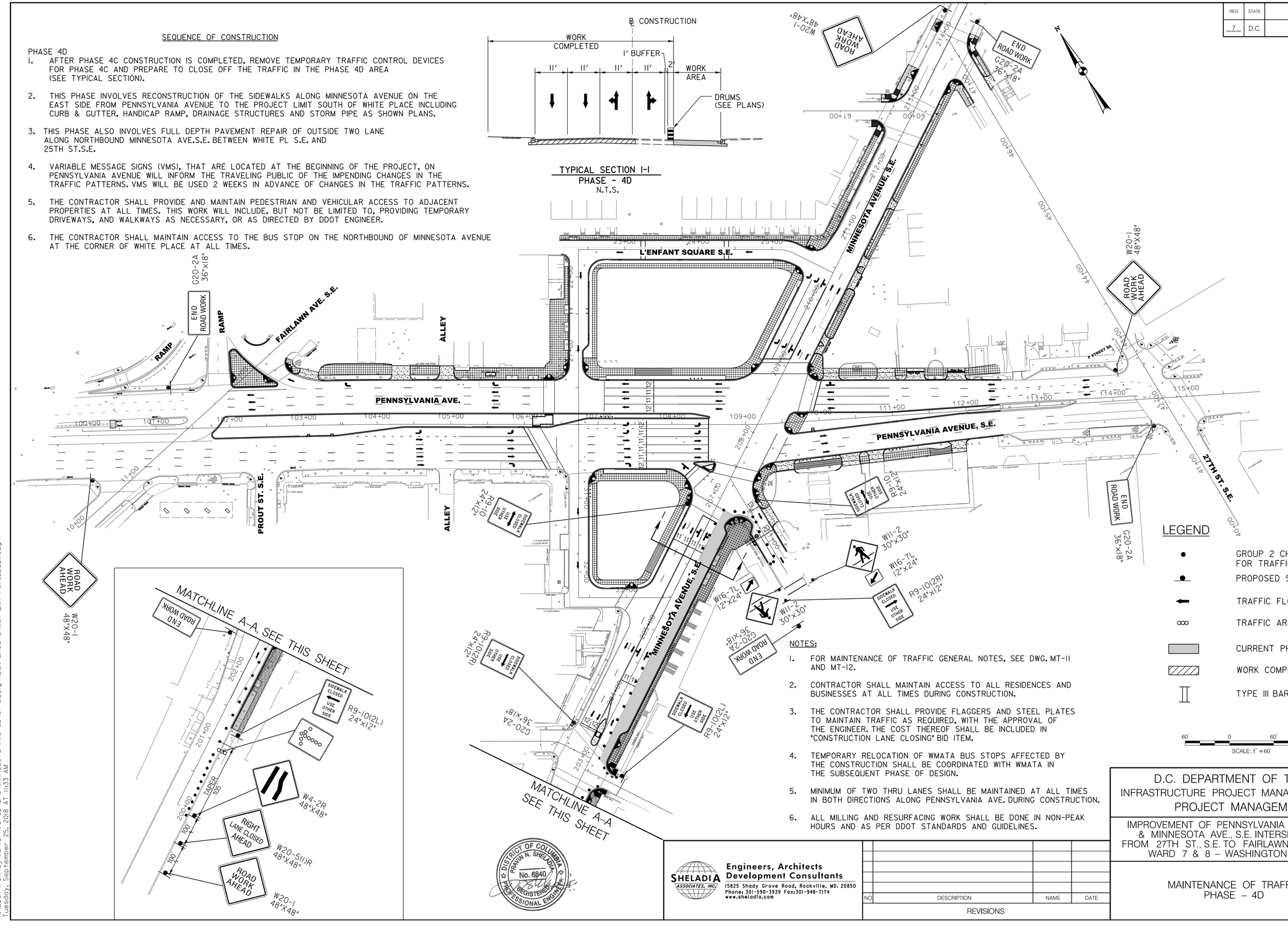
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	100	197

SEQUENCE OF CONSTRUCTION

PHASE 4D

1. AFTER PHASE 4C CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 4C AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4D AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE EAST SIDE FROM PENNSYLVANIA AVENUE TO THE PROJECT LIMIT SOUTH OF WHITE PLACE INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.
3. THIS PHASE ALSO INVOLVES FULL DEPTH PAVEMENT REPAIR OF OUTSIDE TWO LANE ALONG NORTHBOUND MINNESOTA AVE.S.E. BETWEEN WHITE PL S.E. AND 25TH ST.S.E.
4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.
6. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE BUS STOP ON THE NORTHBOUND OF MINNESOTA AVENUE AT THE CORNER OF WHITE PLACE AT ALL TIMES.

TYPICAL SECTION I-I
PHASE - 4D
N.T.S.



NOTES:

1. FOR MAINTENANCE OF TRAFFIC GENERAL NOTES, SEE DWG. MT-11 AND MT-12.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AND STEEL PLATES TO MAINTAIN TRAFFIC AS REQUIRED, WITH THE APPROVAL OF THE ENGINEER. THE COST THEREOF SHALL BE INCLUDED IN "CONSTRUCTION LANE CLOSING" BID ITEM.
4. TEMPORARY RELOCATION OF WMATA BUS STOPS AFFECTED BY THE CONSTRUCTION SHALL BE COORDINATED WITH WMATA IN THE SUBSEQUENT PHASE OF DESIGN.
5. MINIMUM OF TWO THRU LANES SHALL BE MAINTAINED AT ALL TIMES IN BOTH DIRECTIONS ALONG PENNSYLVANIA AVE. DURING CONSTRUCTION.
6. ALL MILLING AND RESURFACING WORK SHALL BE DONE IN NON-PEAK HOURS AND AS PER DDOT STANDARDS AND GUIDELINES.

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE

60' 0 60' 120'
SCALE: 1" = 60'

DISTRICT OF COLUMBIA — PRAVIN N. SHELADIA — No. 6840 — REGISTERED PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

MT-11

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC
PHASE – 4D

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

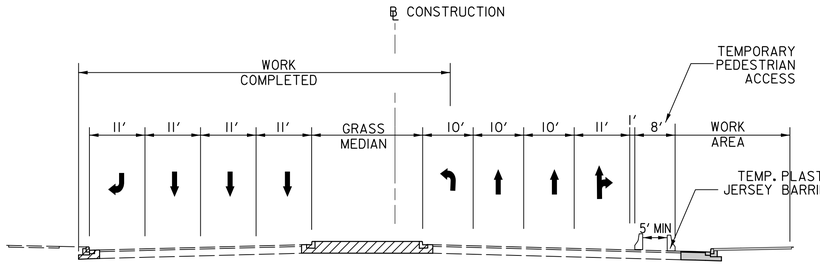
DIVISION CHIEF
DATE
FILE
DWG. 100 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P01I_ED08IA.dgn
Tuesday, September 25, 2018 AT 11:33 AM

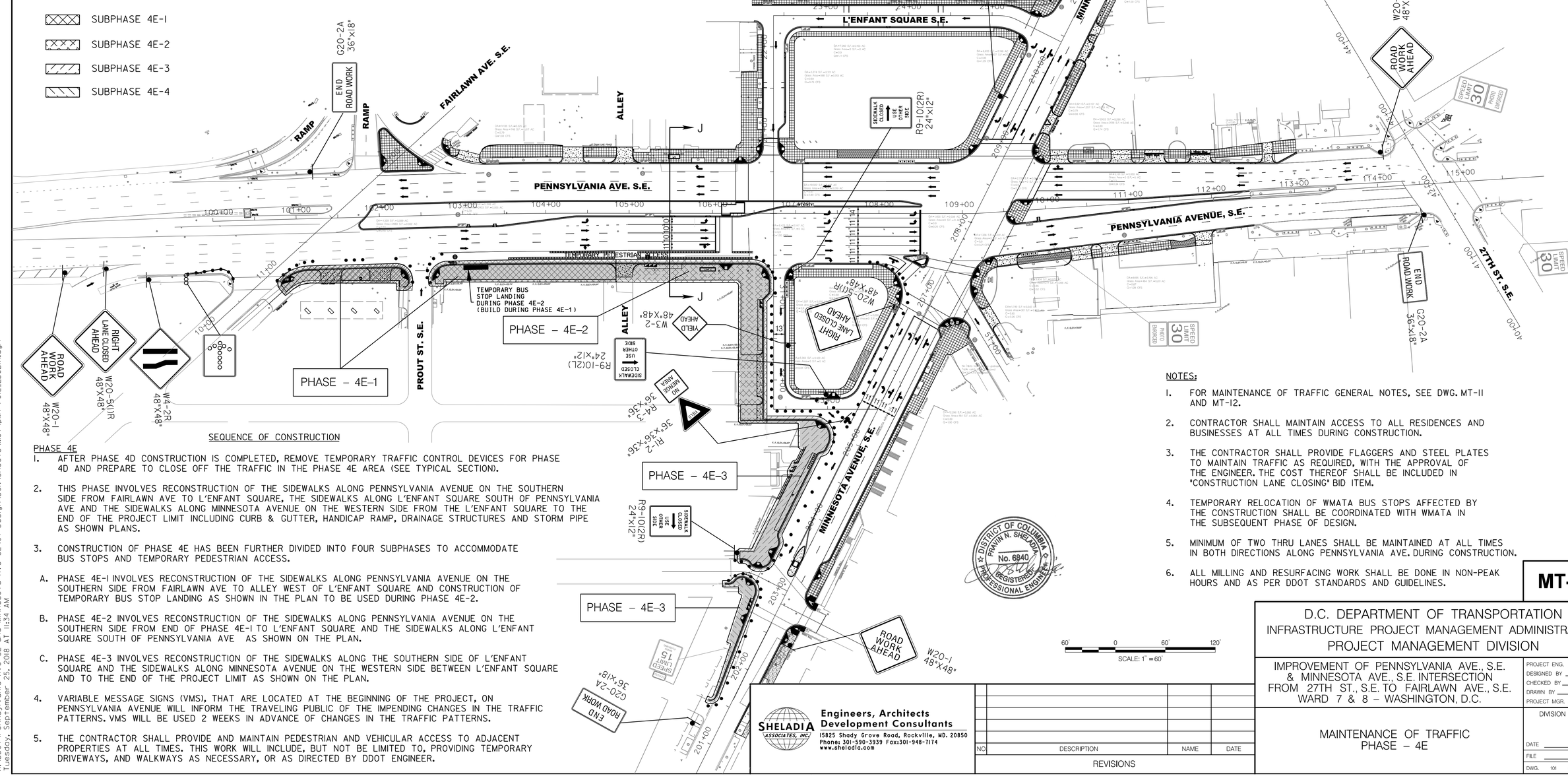
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	101	197

LEGEND

- GROUP 2 CHANNELIZING DEVICES FOR TRAFFIC CONTROL
- PROPOSED SIGN
- TRAFFIC FLOW ARROW
- TRAFFIC ARROW PANEL
- CURRENT PHASE WORK AREA
- WORK COMPLETED IN PREVIOUS PHASE
- TYPE III BARRICADE
- TEMPORARY TRAFFIC BARRIER
- SUBPHASE 4E-1
- SUBPHASE 4E-2
- SUBPHASE 4E-3
- SUBPHASE 4E-4



TYPICAL SECTION J-J
PHASE - 4E
N.T.S.


L'ENFANT SQUARE S.E.
MINNESOTA AVENUE, S.E.
PENNSYLVANIA AVE. S.E.
PENNSYLVANIA AVENUE, S.E.
FAIRLAWN AVE. S.E.
ALLEY
PROUT ST. S.E.
27TH ST. S.E.
RAMP
RAMP
END ROAD WORK
G20-2A 36"x18"
ROAD WORK AHEAD
W20-1 48"X48"
RIGHT LANE CLOSED AHEAD
W20-5(U)R 48"X48"
W4-2R 48"X48"
W20-5(1)R 48"X48"
W3-2 48"X48"
SIDEWALK CLOSED USE OTHER SIDE
R9-10(2R) 24"X12"
R9-10(2L) 24"X12"
R4-3 36"X36"
R1-2 36"X36"
NO MERGE AREA
SPEED LIMIT 30
PHOTO ENFORCED
TEMPORARY PEDESTRIAN ACCESS
TEMPORARY BUS STOP LANDING DURING PHASE 4E-2 (BUILD DURING PHASE 4E-1)
PHASE - 4E-1
PHASE - 4E-2
PHASE - 4E-3
PHASE - 4E-3
J
J
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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	102	197

GENERAL NOTES

THE DESIGN AND CONSTRUCTION WORK FOR THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE FEDERAL AND STATE LAWS AND DDOT STANDARDS AND SPECIFICATIONS. SEQUENCE OF CONSTRUCTION/ MAINTENANCE OF TRAFFIC (SOC/MOT) IS INTENDED AS A GUIDE. IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE OR STAGE, BUT ONLY TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. ANY CHANGES TO THE SOC/MOT PLAN MUST BE APPROVED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION THAT MAY AFFECT EXISTING TRAFFIC. UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER,THE CONTRACTOR SHALL PLAN AND PROSECUTE THE WORK IN ACCORDANCE WITH THE FOLLOWING:

1. THE CONTRACTOR IS REQUIRED TO FOLLOW THE MAINTENANCE OF TRAFFIC (M.O.T.) REQUIREMENTS SET FORTH IN THIS PLAN, THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2013 DDOT SPECIFICATIONS AND THE 2006 D.C TEMPORARY TRAFFIC CONTROL MANUAL. IN ADDITION, THE CONTRACTOR SHALL FOLLOW SECTIONS 104.02 AND 612 OF THE DDOT SPECIFICATIONS FOR IMPLEMENTATION MAINTENANCE OF TRAFFIC PLANS. THE MOT PLANS INCLUDED ARE SUGGESTED; THE CONTRACTOR WILL BE REQUIRED TO SUPPLEMENT THE MOT PLANS AS NECESSARY FOR CONDITIONS NOT SHOWN IN THE MOT PLANS SUCH AS THE INSTALLATION OF UNDERGROUND UTILITIES, TRAFFIC LANE SHIFTS, AND FOR ANY OTHER SPECIFIC CONDITION BEYOND THE GENERAL SEQUENCE PRESENTED IN THE MOT PLAN SET. PAYMENT FOR PREPARATION OF THE ADDITIONAL MOT PLANS WILL BE MADE AS SPECIFIED IN 612.02(C) OF THE STANDARD SPECIFICATIONS.
2. PENNSYLVANIA AVENUE IS A PRINCIPAL ARTERIAL AND RUNS IN AN EAST/WEST ORIENTATION. IT INTERSECTS WITH MINNESOTA AVENUE, 25TH STREET AND 27TH STREET, WHICH ARE MINOR, AND FAIRLAWN AVENUE, PROUT STREET AND L'ENFANT, WHICH ARE LOCAL. IN ADDITION, IT INTERSECTS WITH DRIVEWAYS AND MINOR STREETS.
3. ALL ADVANCE CONSTRUCTION WARNING SIGNING SHALL BE INSTALLED PRIOR TO THE BEGINNING OF EACH PHASE OF CONSTRUCTION.
4. THE CONSTRUCTION WORK HOURS AND TRUCK DELIVERY HOURS SHALL BE BETWEEN 9:30AM AND 3:30PM, MONDAY THROUGH FRIDAY. WEEKEND WORK ON SATURDAYS AND SUNDAYS SHALL BE PERMITTED WITH PRIOR WRITTEN APPROVAL BY THE ENGINEER PER SECTION 105.10 OF THE DDOT SPECIFICATIONS.
5. THE CONTRACTOR SHALL INSTALL THE NEW STREET LIGHTING AS PART OF EACH APPROPRIATE PHASE OF CONSTRUCTION. EXISTING LIGHTING LEVELS SHALL BE MAINTAINED.
6. THE CONTRACTOR SHALL MAINTAIN TRAFFIC ON EXISTING ROADWAYS TO AND FROM PENNSYLVANIA AVENUE AND MINNESOTA AVENUE AT ALL TIMES, EXCEPT WHEN OTHERWISE SPECIFIED IN THE SEQUENCE OF CONSTRUCTION. CONTRACTOR SHALL NOT CLOSE ANY PART OF PENNSYLVANIA AVENUE AND MINNESOTA AVENUE PRIOR TO INSTALLING DETOUR SIGNS, IF NEEDED.
7. CONTRACTOR IS NOT ALLOWED TO PERFORM ANY CONSTRUCTION ACTIVITY DURING NIGHT HOURS, EXCEPT IF APPROVED BY THE ENGINEER.
8. THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING PAVEMENT MARKINGS WHICH ARE NOT SCHEDULED FOR REPLACEMENT BUT BECOME DAMAGED BY CONSTRUCTION. THIS IS CONSIDERED INCIDENTAL TO OTHER WORK. PAVING DURING CONSTR. PHASES SHALL BE CARRIED THROUGH BINDER COURSE. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE COMPLETED ACCORDING TO SECTION 612.03 OF THE DDOT SPECIFICATIONS. FINAL SURFACE COURSE SHALL BE PLACED ONCE ALL PHASES OF CONSTRUCTION ARE COMPLETE.
9. TEMPORARY CONNECTIONS AND PHASED CONSTRUCTION SHALL BE CONSTRUCTED AND COMPLETED IN A MANNER THAT WILL MINIMIZE DISRUPTION OF TRAFFIC.
10. THE CONTRACTOR SHALL NOT LEAVE THE WORK ZONE UNATTENDED WITH ANY OPEN TRENCHES. CONTRACTOR SHALL NOT MAKE PAVEMENT EXCAVATIONS OR OPENINGS TO A GREATER EXTENT THAT CAN BE REPLACED AND REPAVED DURING THE SAME WORKING DAY, UNLESS OTHERWISE APPROVED BY THE ENGINEER (PER SECTION 505.04, DDOT SPECIFICATIONS).
11. ALL DETOUR SIGNS USED DURING STREET CLOSURES SHALL BE COVERED FOR THE DURATION WHEN THE STREET IS OPEN TO TRAFFIC AFTER CONSTRUCTION WORK HOURS.
12. THE CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING ROADWAYS/ACCESS POINTS DURING CONSTRUCTION WITH DRUMS OR OTHER CHANNELIZING DEVICES AS DIRECTED BY THE ENGINEER.
13. THE CONTRACTOR SHALL MAINTAIN ALL SIGNAGE WITHIN THE LIMITS OF CONSTRUCTION, SHOWN OR OTHERWISE, UNLESS DIRECTED BY THE ENGINEER. IF REMOVAL IS ALLOWED, CONTRACTOR SHALL STORE THE SIGNS PER DDOT STANDARDS, AND IF DIRECTED, REPLACE THEM AT THE COMPLETION OF THE PROJECT.
14. THE CONTRACTOR SHALL SUBMIT MESSAGES FOR ANY PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) FOR REVIEW AND APPROVAL PRIOR TO THE START OF CONSTRUCTION. MESSAGES INDICATING AN UPCOMING CHANGE IN TRAFFIC PATTERN MUST BE DISPLAYED ONE (1) WEEK PRIOR TO THE CHANGE IN TRAFFIC PATTERN. PCMS SIGNS MUST BE ON–SITE ONE (1) WEEK PRIOR TO START OF MOT WORK AND MUST REMAIN ON–SITE THROUGH THE DURATION OF THE MOT WORK IDENTIFIED ON THE SIGN.
15. APPROVED CHANNELIZING DEVICES MUST SEPARATE THE WORK AREA FROM THE TRAVEL WAY AND BE EXTENDED TO WHERE THEY ARE VISIBLE TO ONCOMING TRAFFIC.
16. THE CONTRACTOR IS REQUIRED TO NOTIFY FIRE AND/OR POLICE DEPARTMENTS OF APPROVED ROAD CLOSURES. PERMITS WITH THEIR APPROVAL MUST BE ON–SITE WITH ALL OTHER PERMITS PER DDOT TOA, TCP INSPECTION CRITERIA, 11TH EDITION, OCTOBER 2010.
17. BUS STOPS AND TEMPORARY PEDESTRIAN CROSS WALKS SHALL BE MAINTAINED THROUGH THE CONSTRUCTION AREA BY SHIFTING EXISTING STOPS, EXISTING SHELTERS AND METRO SIGNS WHEN NEW STOPS ARE UNDER CONSTRUCTION. TEMPORARY CURB RAMPS AND TEMPORARY SIDEWALK WILL BE REQUIRED DURING THESE SUB–PHASES. THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH WMATA.
18. ALL SIGNS (BOTH PERMANENT AND CONSTRUCTION) SHALL HAVE PRISMATIC LENS TYPE RETRO–REFLECTIVE SHEETING. THIS IS CONSIDERED INCIDENTAL TO OTHER WORK. CONSTRUCTION SIGNS ARE TO BE FURNISHED BY THE CONTRACTOR AND ERECTED AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 612 OF THE SPECIFICATIONS. ALL WARNING SIGNS AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE PROMPTLY REMOVED AT THE COMPLETION OF WORK AND DISCARDED AS DIRECTED BY THE ENGINEER.
19. TEMPORARY AND INTERMEDIATE PAVEMENT STRIPING SHALL BE USED TO DESIGNATE THE TRAFFIC LANES DURING CONSTRUCTION ON THE TRAVEL SURFACE. ALL OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED PROMPTLY TO THE SATISFACTION OF THE DDOT ENGINEER. FOR SAFETY, THE LANE WIDTH OF THE TRAVELWAY CANNOT BE LESS THAN 10 FEET IN ANY CASE OR MORE THAN 18 FEET MAXIMUM.
20. DRIVEWAY ACCESS FOR RESIDENTS ALONG PENNSYLVANIA AVENUE AND MINNESOTA AVENUE SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES DURING CONSTRUCTION.
21. THE CONTRACTOR WILL BE PAID FOR MOVING BARRIERS FROM PHASE 1 TO PHASE 2 TO PHASE 3 ONLY. MOVING BARRIERS WITHIN INDIVIDUAL PHASES (I.E. A, B, AND/OR C) WILL NOT BE MEASURED SEPARATE FOR PAYMENT.
22. BARRIER DELINEATORS SHALL BE INSTALLED ON PORTABLE PRECAST PCC BARRIER. BARRIER DELINEATORS WILL NOT BE SEPARATELY MEASURED FOR PAYMENT. REFER TO SECTION 610.02 OF THE 2013 DDOT STANDARD SPECIFICATIONS AND SECTIONS 610.06, 610.07 AND 610.08 OF THE DDOT STANDARD DRAWINGS (AUGUST 2015) FOR INFORMATION RELATED TO BARRIER DELINEATORS.

SEQUENCE OF CONSTRUCTION

PHASE 1A

1. INSTALL TRAFFIC CONTROL DEVICES, TEMPORARY BARRIERS, TRAFFIC WARNING SIGNS AND TEMPORARY PAVEMENT MARKINGS AND PREPARE TO CLOSE OFF TRAFFIC IN THE PHASE IA AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES PAVEMENT CONSTRUCTION OF NEW SOUTHBOUND MINNESOTA AVENUE NORTH OF PENNSYLVANIA AVENUE INCLUDING CURB AND GUTTER, SIDEWALK, HANDICAP RAMP, DRAINAGE STRUCTURES, STORM PIPE AND CONSTRUCTION WORK WITHIN THE PARK. SIDEWALK, CURB AND GUTTER AND DRAINAGE WORK ALONG THIS SECTION OF PENNSYLVANIA AVENUE IS ALSO INCLUDED IN THIS PHASE. THE CONTRACTOR WILL CLOSE OFF 12' WIDTH OF PENNSYLVANIA AVENUE FROM THE FACE OF EXISTING CURB TO EDGE OF EXISTING MEDIAN AND WILL MAINTAIN 3–LANES OF TRAFFIC IN THE REMAINING PORTION.
3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER

PHASE 1B

1. AFTER PHASE IA CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 1A AND INSTALL CHANNELIZING DEVICES AS SHOWN ON THE PLAN AND PREPARE TO CLOSE OFF TRAFFIC IN THE PHASE IB AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES CONSTRUCTION OF THE SOUTH SIDE OF PENNSYLVANIA AVENUE AND NEW SOUTHBOUND MINNESOTA AVENUE, SOUTH OF PENNSYLVANIA AVENUE, INCLUDING CURB AND GUTTER, SIDEWALKS, CONCRETE ISLAND, DRAINAGE STRUCTURES, STORM PIPE AND CONSTRUCTION WORK WITHIN THE PARK. THE CONTRACTOR WILL CLOSE OFF 12' WIDTH OF PENNSYLVANIA AVENUE FROM THE FACE OF EXISTING CURB AND WILL MAINTAIN BOTH WESTBOUND AND EASTBOUND TRAFFIC AS SHOWN ON THE PLANS.
3. THIS PHASE ALSO INVOLVES FULL DEPTH PAVEMENT REPAIR OF INSIDE LANE ALONG NORTHBOUND MINNESOTA AVE.S.E. BETWEEN WHITE PL S.E. AND 25TH ST.S.E.
4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

PHASE 2A

1. AFTER PHASE 1B CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 1B AND SHIFT SOUTHBOUND MINNESOTA AVENUE TRAFFIC TO THE NEWLY CONSTRUCTED SOUTHBOUND LANES. PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 2A AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES REMOVING EXISTING SOUTHBOUND MINNESOTA AVENUE AND GRADING THE PROPOSED PUBLIC SPACE/PARK NORTH OF PENNSYLVANIA AVENUE PAVEMENT. RECONSTRUCTION OF THE NORTHSIDE OF PENNSYLVANIA AVENUE AND SOUTH AND EAST SIDES OF L'ENFANT SQUARE INCLUDING CURB & GUTTER REPAIR, SIDEWALK, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE. CONTRACTOR SHALL MAINTAIN ONE WAY TRAFFIC AS SHOWN ON THE PLANS.
3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE BUS STOP ON WESTBOUND PENNSYLVANIA AVENUE AT THE CORNER OF L'EFANT SQUARE AT ALL TIMES.

PHASE 2B

1. AFTER PHASE 2A CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 2A AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 2B AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES REMOVING EXISTING SOUTHBOUND MINNESOTA AVENUE AND GRADING THE PROPOSED PUBLIC SPACE/PARK SOUTH OF PENNSYLVANIA AVENUE INCLUDING CURB & GUTTER REPAIR, SIDEWALK, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE ALONG THE EAST AND SOUTH SIDES OF L'ENFANT SQUARE. CONTRACTOR SHALL MAINTAIN ONE WAY TRAFFIC AS SHOWN ON THE PLANS.
3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE BUS STOP ON EASTBOUND PENNSYLVANIA AVENUE AT THE CORNER OF L'EFANT SQUARE AT ALL TIMES.

PHASE 3

1. AFTER PHASE 2B CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 2B AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 3 AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES RECONSTRUCTION OF MEDIAN AND THE NEW LEFT TURN LANE FROM WESTBOUND PENNSYLVANIA AVENUE TO NORTHBOUND MINNESOTA AVENUE INCLUDING CURB & GUTTER REPAIR, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE.
3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS.VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN ACCESS ACROSS PENNSYLVANIA AVENUE AT ALL TIMES.

PHASE 4A

1. AFTER PHASE 3 CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 3 AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4A AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES RECONSTRUCTION OF CONCRETE ISLAND AT INTERSECTION OF FAIRLAWN AVE. AND PENNSYLVANIA AVENUE, THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE NORTHERN SIDE FROM FAIRLAWN AVE TO L'ENFANT SQUARE, THE SIDEWALKS ALONG L'ENFANT SQUARE AND THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE WESTERN SIDE INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.
3. CONSTRUCTION OF PHASE 4A HAS BEEN FURTHER DIVIDED INTO FOUR SUBPHASES TO ACCOMMODATE BUS STOPS AND TEMPORARY PEDESTRIAN ACCESS.

   A. PHASE 4A–1 INVOLVES RECONSTRUCTION OF CONCRETE ISLAND AT INTERSECTION OF FAIRLAWN AVENUE AND PENNSYLVANIA AVENUE AND CONSTRUCTION OF TEMPORARY BUS STOP LANDING AS SHOWN IN THE PLAN TO BE USED DURING PHASE 4A–2.

   B. PHASE 4A–2 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE NORTHERN SIDE, FROM FAIRLAWN AVE TO L'ENFANT SQUARE, AND THE SIDEWALKS ALONG THE WEST SIDE L'ENFANT SQUARE AS SHOWN ON THE PLAN.

   C. PHASE 4A–3 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG THE NORTHERN SIDE OF L'ENFANT SQUARE AND THE SIDEWALKS ALONG MINNESOTA AVENUE, ON THE WESTERN SIDE, BETWEEN L'ENFANT SQUARE AND BURNS STREET AS SHOWN ON THE PLAN. THE NEWLY RELOCATED BUS STOP AT THE INTERSECTION OF MINNESOTA AVENUE AND L'ENFANT SQUARE WILL BE OUT OF SERVICE FOR THIS PHASE.

   D. PHASE 4A–4 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG MINNESOTA AVENUE, ON THE WESTERN SIDE, NORTH OF BURNS STREET AS SHOWN ON THE PLAN.
4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

PHASE 4B

1. AFTER PHASE 4A CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 4A AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4B AREA (SEE TYPICAL SECTION).
2. THIS PHASE INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE NORTHERN SIDE FROM MINNESOTA AVENUE TO THE PROJECT LIMIT, WEST OF 27TH STREET, AND THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE EASTERN SIDE INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.
3. CONSTRUCTION OF PHASE 4B HAS BEEN FURTHER DIVIDED INTO THREE SUBPHASES TO ACCOMMODATE BUS STOPS AND TEMPORARY PEDESTRIAN ACCESS.

   A. PHASE 4B–1 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG MINNESOTA AVENUE, NORTH OF L'ENFANT SQUARE, AND CONSTRUCTION OF TEMPORARY BUS STOP LANDING AS SHOWN IN THE PLAN TO BE USED DURING PHASE 4B–2.

   B. PHASE 4B–2 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG MINNESOTA AVENUE, FROM THE END OF PHASE 4B–1 TO PENNSYLVANIA AVENUE INTERSECTION, AS SHOWN ON THE PLAN.

   C. PHASE 4B–3 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG THE NORTHERN SIDE OF PENNSYLVANIA AVENUE, FROM THE END OF PHASE 4B–2 TO THE PROJECT LIMIT WEST OF 27TH STREET, AS SHOWN ON THE PLAN.
4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

MT-13

DISTRICT OF COLUMBIA ☆ PRAVIN N. SHELADIA ☆ No. 6840 ☆ REGISTERED PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

MAINTENANCE OF TRAFFIC NOTES

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

DIVISION CHIEF
DATE
FILE
DWG. 102 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P013.EDGBIA.dgn
Tuesday, September 25, 2018 AT 11:34 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	103	197

SEQUENCE OF CONSTRUCTION (Cont.)

PHASE 4C

1. AFTER PHASE 4B CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 4D AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4C AREA (SEE TYPICAL SECTION).

2. THIS PHASE INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE SOUTH SIDE, FROM MINNESOTA AVENUE TO THE PROJECT LIMIT WEST OF 27TH STREET, AND THE SIDEWALKS ALONG NORTH 25TH STREET INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.

3. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.

4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

5. THIS PHASE HAS FOUR TREES THAT WILL REQUIRE PROTECTION. THE CONTRACTOR SHALL PROTECT THESE TREES PER DDOT STANDARD DURING CONSTRUCTION.

PHASE 4D

1. AFTER PHASE 4C CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 4C AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4D AREA (SEE TYPICAL SECTION).

2. THIS PHASE INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE EAST SIDE, FROM PENNSYLVANIA AVENUE TO THE PROJECT LIMIT SOUTH OF WHITE PLACE, INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.

3. THIS PHASE ALSO INVOLVES FULL DEPTH PAVEMENT REPAIR OF OUTSIDE TWO LANE ALONG NORTHBOUND MINNESOTA AVE.S.E. BETWEEN WHITE PL S.E. AND 25TH ST.S.E.

4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.

5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

6. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE BUS STOP ON THE NORTHBOUND OF MINNESOTA AVENUE AT THE CORNER OF WHITE PLACE AT ALL TIMES.

PHASE 4E

1. AFTER PHASE 4D CONSTRUCTION IS COMPLETED, REMOVE TEMPORARY TRAFFIC CONTROL DEVICES FOR PHASE 4D AND PREPARE TO CLOSE OFF THE TRAFFIC IN THE PHASE 4E AREA (SEE TYPICAL SECTION).

2. THIS PHASE INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE SOUTHERN SIDE, FROM FAIRLAWN AVE TO L'ENFANT SQUARE, THE SIDEWALKS ALONG L'ENFANT SQUARE SOUTH OF PENNSYLVANIA AVE, AND THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE WESTERN SIDE, FROM THE L'ENFANT SQUARE TO THE END OF THE PROJECT LIMIT, INCLUDING CURB & GUTTER, HANDICAP RAMP, DRAINAGE STRUCTURES AND STORM PIPE AS SHOWN PLANS.

3. CONSTRUCTION OF PHASE 4E HAS BEEN FURTHER DIVIDED INTO FOUR SUBPHASES TO ACCOMMODATE BUS STOPS AND TEMPORARY PEDESTRIAN ACCESS.

   A. PHASE 4E–1 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE SOUTHERN SIDE, FROM FAIRLAWN AVE TO ALLEY WEST OF L'ENFANT SQUARE, AND CONSTRUCTION OF TEMPORARY BUS STOP LANDING AS SHOWN IN THE PLAN TO BE USED DURING PHASE 4E–2.

   B. PHASE 4E–2 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG PENNSYLVANIA AVENUE ON THE SOUTHERN SIDE, FROM THE END OF PHASE 4E–1 TO L'ENFANT SQUARE, AND THE SIDEWALKS ALONG L'ENFANT SQUARE SOUTH OF PENNSYLVANIA AVE AS SHOWN ON THE PLAN.

   C. PHASE 4E–3 INVOLVES RECONSTRUCTION OF THE SIDEWALKS ALONG THE SOUTHERN SIDE OF L'ENFANT SQUARE AND THE SIDEWALKS ALONG MINNESOTA AVENUE ON THE WESTERN SIDE, BETWEEN L'ENFANT SQUARE AND THE END OF THE PROJECT LIMIT AS SHOWN ON THE PLAN.

4. VARIABLE MESSAGE SIGNS (VMS), THAT ARE LOCATED AT THE BEGINNING OF THE PROJECT, ON PENNSYLVANIA AVENUE WILL INFORM THE TRAVELING PUBLIC OF THE IMPENDING CHANGES IN THE TRAFFIC PATTERNS. VMS WILL BE USED 2 WEEKS IN ADVANCE OF CHANGES IN THE TRAFFIC PATTERNS.

5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PEDESTRIAN AND VEHICULAR ACCESS TO ADJACENT PROPERTIES AT ALL TIMES. THIS WORK WILL INCLUDE, BUT NOT BE LIMITED TO, PROVIDING TEMPORARY DRIVEWAYS, AND WALKWAYS AS NECESSARY, OR AS DIRECTED BY DDOT ENGINEER.

PCMS MESSAGES

PRIOR TO CONSTRUCTION:

ON OR BEFORE MM/DD/YY

ROAD WORK BEGINS

NEW TRAFFIC PATTERN

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\MOT\pMT-P014_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:34 AM

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

MT-14

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

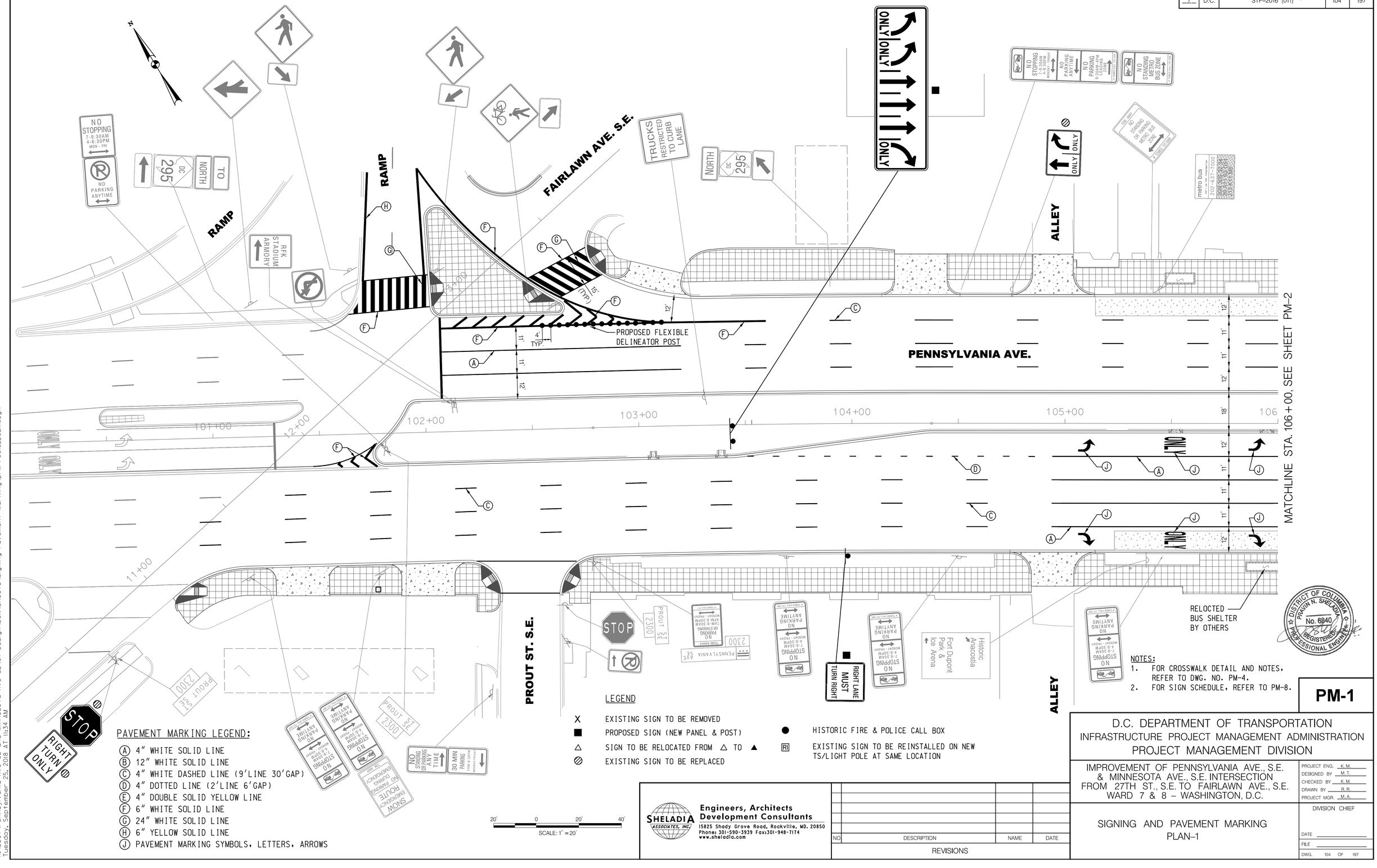
IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

MAINTENANCE OF TRAFFIC NOTES

DIVISION CHIEF
DATE
FILE
DWG. 103 OF 197

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	104	197


FAIRLAWN AVE. S.E.
RAMP
RAMP
TRUCKS RESTRICTED TO CURB LANE
NO STOPPING 7-9:30AM 4-6:30PM MON-FRI
NO PARKING ANYTIME
TO NORTH 295 DC
RFK STADIUM ARMORY
NORTH 295 DC
ONLY
ONLY
ONLY
ONLY
NO STOPPING 7-9:30AM 4-6:30PM MONDAY - FRIDAY
NO PARKING ANYTIME
NO PARKING 9:30AM-4PM 2 HOUR ZONE
NO STANDING METRO BUS ZONE
ALLEY
metro bus
202-637-7000
PROPOSED FLEXIBLE DELINEATOR POST
PENNSYLVANIA AVE.
ALLEY
PROUT ST. S.E.
101+00
102+00
103+00
104+00
105+00
106
11+00
12+00
MATCHLINE STA. 106+00, SEE SHEET PM-2
RELOCTED BUS SHELTER BY OTHERS
RIGHT LANE MUST TURN RIGHT
Historic Anacostia
Fort Dupont Park & Ice Arena
STOP
RIGHT TURN ONLY
NO STANDING OR PARKING ANY TIME
30 MIN PARKING
SNOW EMERGENCY ROUTE NO PARKING DURING EMERGENCY
PROUT ST SE 2300
PENNSYLVANIA AVE SE 2300
TOW AWAY NO STANDING 7AM-9:30AM 3PM-6:30PM MONDAY - FRIDAY
NO PARKING ANYTIME NO STOPPING 7-9:30AM 4-6:30PM MONDAY - FRIDAY
NO STOPPING 7-9:30AM 4-6:30PM MONDAY - FRIDAY
NO PARKING ANYTIME

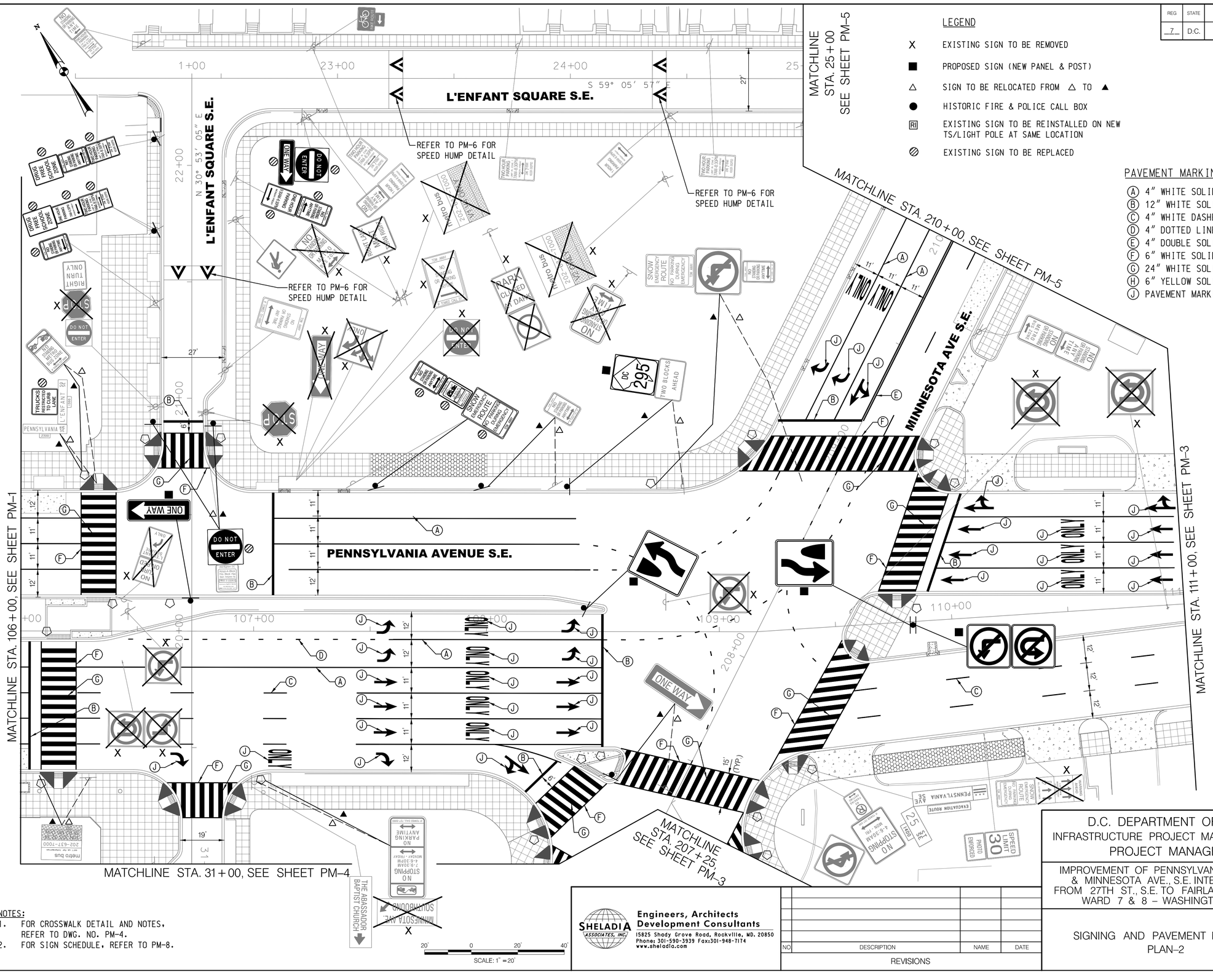
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	105	197

LEGEND

- X — EXISTING SIGN TO BE REMOVED
- ■ — PROPOSED SIGN (NEW PANEL & POST)
- △ — SIGN TO BE RELOCATED FROM △ TO ▲
- ● — HISTORIC FIRE & POLICE CALL BOX
- RI — EXISTING SIGN TO BE REINSTALLED ON NEW TS/LIGHT POLE AT SAME LOCATION
- ▨ — EXISTING SIGN TO BE REPLACED

PAVEMENT MARKING LEGEND:

- (A) 4" WHITE SOLID LINE
- (B) 12" WHITE SOLID LINE
- (C) 4" WHITE DASHED LINE (9'LINE 30'GAP)
- (D) 4" DOTTED LINE (2'LINE 6'GAP)
- (E) 4" DOUBLE SOLID YELLOW LINE
- (F) 6" WHITE SOLID LINE
- (G) 24" WHITE SOLID LINE
- (H) 6" YELLOW SOLID LINE
- (J) PAVEMENT MARKING SYMBOLS, LETTERS, ARROWS



NOTES:

1. FOR CROSSWALK DETAIL AND NOTES, REFER TO DWG. NO. PM-4.
2. FOR SIGN SCHEDULE, REFER TO PM-8.

PM-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

SIGNING AND PAVEMENT MARKING PLAN–2

DIVISION CHIEF
DATE
FILE
DWG. 105 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

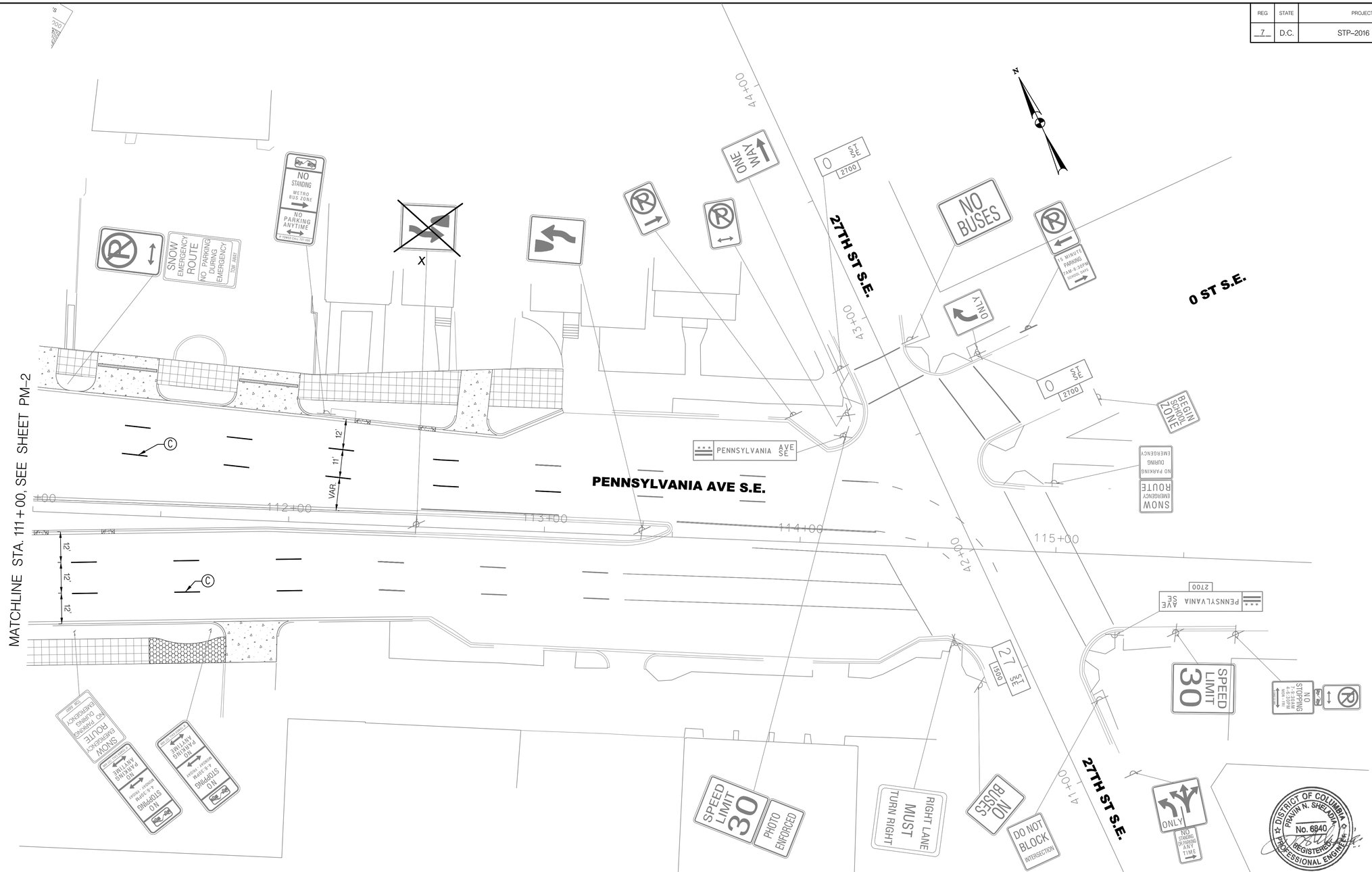
NO.	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA PRAVIN N. SHELADIA No. 6840 REGISTERED PROFESSIONAL ENGINEER

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Signing Pavement Marking\pPM-P002_ED0B1A.dgn
Tuesday, September 25, 2018 AT 11:34 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	106	197



LEGEND

- X — EXISTING SIGN TO BE REMOVED
- ■ — PROPOSED SIGN (NEW PANEL & POST)
- △ — SIGN TO BE RELOCATED FROM △ TO ▲
- ● — HISTORIC FIRE & POLICE CALL BOX
- [RI] — EXISTING SIGN TO BE REINSTALLED ON NEW TS/LIGHT POLE AT SAME LOCATION
- ⊘ — EXISTING SIGN TO BE REPLACED

PAVEMENT MARKING LEGEND:

- (A) 4" WHITE SOLID LINE
- (B) 12" WHITE SOLID LINE
- (C) 4" WHITE DASHED LINE (9'LINE 30'GAP)
- (D) 4" DOTTED LINE (2'LINE 6'GAP)
- (E) 4" DOUBLE SOLID YELLOW LINE
- (F) 6" WHITE SOLID LINE
- (G) 24" WHITE SOLID LINE
- (H) 6" YELLOW SOLID LINE
- (J) PAVEMENT MARKING SYMBOLS, LETTERS, ARROWS

NOTE:
FOR CROSSWALK DETAIL AND NOTES, REFER TO DWG. NO. PM-4

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

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Development Consultants
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www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

PM-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

SIGNING AND PAVEMENT MARKING PLAN-3

DIVISION CHIEF
DATE
FILE
DWG. 106 OF 197

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Tuesday, September 25, 2018 AT 11:34 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	107	197

NOTES-DETAILS OF STREET MARKINGS:

1. ALL PAVEMENT MARKINGS SHALL BE WHITE,UNLESS OTHERWISE NOTED.
2. CROSSWALK LINES SHALL BE 6″ WIDE.
3. CROSSWALK SHALL BE 20′ WIDE (MINIMUM) UNLESS OTHERWISE NOTED.
4. STOP LINES SHALL BE 12″ WIDE, LOCATED 6′ BEFORE CROSSWALK.
5. DASH LINES SHALL BE 4″ WIDE, 10′ LONG; SKIP SPACES 30′ LONG.
6. DOUBLE YELLOW CENTER LINES SHALL BE 4″ WIDE LOCATED 4″ APART.
7. TRAFFIC GUIDELINES SHALL BE 4″ WIDE, 2′ LONG; SKIP SPACES 4′ LONG.
8. ALL SIGNS, CHANNELIZING DEVICES, ETC. SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD-2009).
9. TRAFFIC SIGNALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
10. ALL EXISTING SIGNS SHALL REMAIN IN PLACE, UNLESS OTHERWISE NOTED.
11. ALL PARKING RESTRICTION SIGNS SHALL BE ANGLED @ 45 DEGREES FOR BETTER VISIBILITY.
12. PARKING "L" SHALL BE PLACED TO INDICATE THE END OF THE PARKING SPACES; SPECIFICALLY, ADJACENT TO PARKING RESTRICTION SIGNS NEAR STREET INTERSECTIONS. 10 FT. ON EITHER SIDE OF FIRE HYDRANTS AND 5 FT. ON EITHER SIDE OF DRIVEWAY AND/OR ALLEY ENTRANCES.
13. PAVEMENT MARKINGS SHALL NOT BE APPLIED IN THE GUTTER AREAS OR A TOP SURFACE STRUCTURES SUCH AS MANHOLE COVERS, VALVES, VAULTS, ETC.
14. MORNING PEAK HOUR LEFT TURN IS ALLOWED FROM OUTER LANE OF NORTHBOUND MINNESOTA AVE TO WESTBOUND PENNSYLVANIA AVENUE. ELECTRONIC LANE USAGE RESTRICTION SIGN WILL BE ADDED TO THE SIGNAL PLANS.

LEGEND

- X — EXISTING SIGN TO BE REMOVED
- ■ — PROPOSED SIGN (NEW PANEL & POST)
- △ — SIGN TO BE RELOCATED FROM △ TO ▲
- ● — HISTORIC FIRE & POLICE CALL BOX
- [RI] — EXISTING SIGN TO BE REINSTALLED ON NEW TS/LIGHT POLE AT SAME LOCATION
- ⊘ — EXISTING SIGN TO BE REPLACED

PAVEMENT MARKING LEGEND:

- (A) 4″ WHITE SOLID LINE
- (B) 12″ WHITE SOLID LINE
- (C) 4″ WHITE DASHED LINE (9′LINE 30′GAP)
- (D) 4″ DOTTED LINE (2′LINE 6′GAP)
- (E) 4″ DOUBLE SOLID YELLOW LINE
- (F) 6″ WHITE SOLID LINE
- (G) 24″ WHITE SOLID LINE
- (H) 6″ YELLOW SOLID LINE
- (J) PAVEMENT MARKING SYMBOLS, LETTERS, ARROWS

CROSSWALK DETAIL

NOTE:
FOR SIGN SCHEDULE, REFER TO PM-8.

RIGHT TURN AT THE INTERSECTION ALLOWED IN THE MORNING PEAK HOURS SEE HT-5

MATCHLINE STA. 31+00. SEE SHEET PM-2

MATCHLINE STA. 207+25, SEE SHEET PM-2

SHELADIA ASSOCIATES, INC.
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

PM-4

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

SIGNING AND PAVEMENT MARKING PLAN–4

DIVISION CHIEF
DATE
FILE
DWG. 107 OF 197

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

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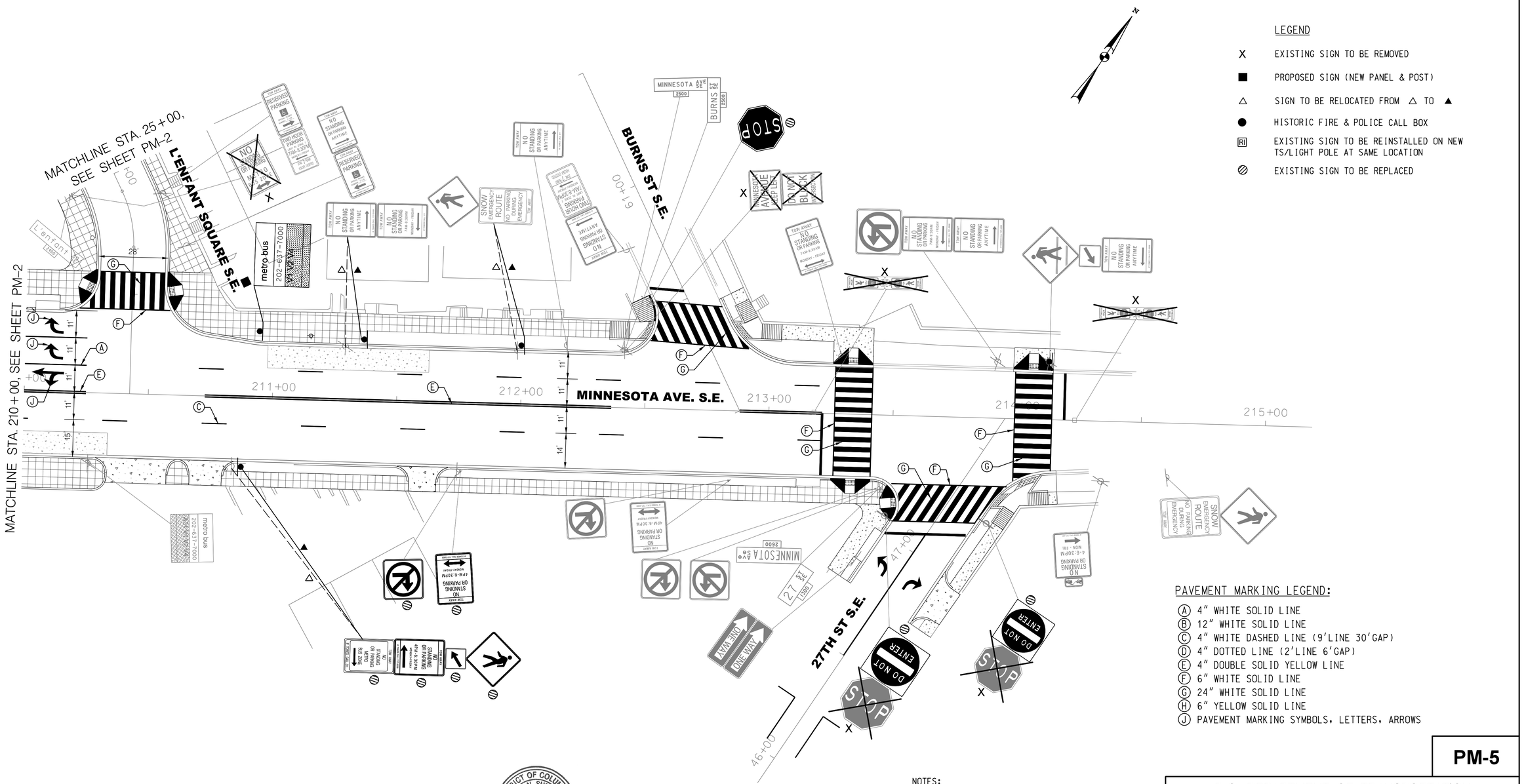
Tuesday, September 25, 2018 AT 11:34 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	108	197



NOTES:
1. FOR CROSSWALK DETAIL AND NOTES, REFER TO DWG. NO. PM-4.
2. FOR SIGN SCHEDULE, REFER TO PM-8.

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

PM-5

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

SIGNING AND PAVEMENT MARKING PLAN-5

DIVISION CHIEF
DATE
FILE
DWG. 108 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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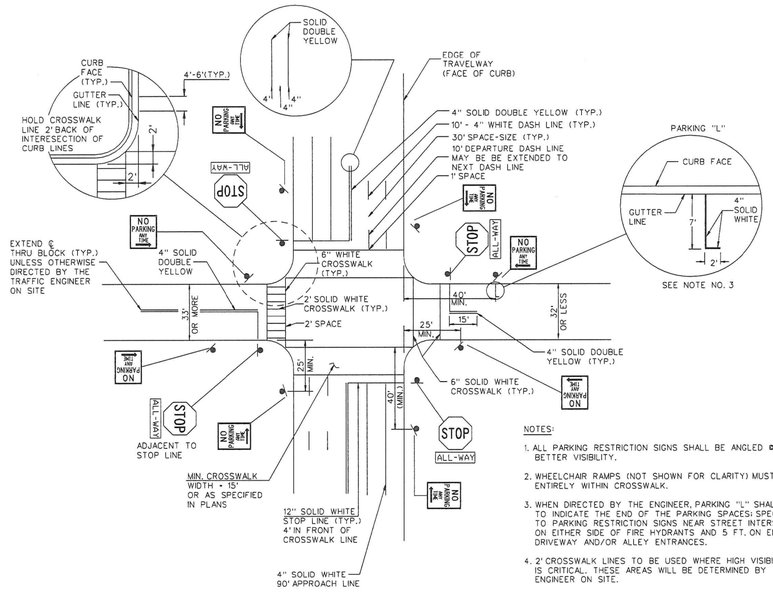
Tuesday, September 25, 2018 AT 11:34 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	109	197



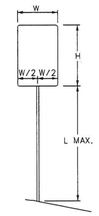
NOTES:

1. ALL PARKING RESTRICTION SIGNS SHALL BE ANGLED @ 45 DEGREES FOR BETTER VISIBILITY.
2. WHEELCHAIR RAMPS (NOT SHOWN FOR CLARITY) MUST BE LOCATED ENTIRELY WITHIN CROSSWALK.
3. WHEN DIRECTED BY THE ENGINEER, PARKING "L" SHALL BE PLACED TO INDICATE THE END OF THE PARKING SPACES; SPECIFICALLY, ADJACENT TO PARKING RESTRICTION SIGNS NEAR STREET INTERSECTIONS, 10 FT. ON EITHER SIDE OF FIRE HYDRANTS AND 5 FT. ON EITHER SIDE OF DRIVEWAY AND/OR ALLEY ENTRANCES.
4. 2' CROSSWALK LINES TO BE USED WHERE HIGH VISIBILITY OF CROSSWALK IS CRITICAL. THESE AREAS WILL BE DETERMINED BY THE TRAFFIC ENGINEER ON SITE.
5. PAVEMENT MARKINGS SHALL NOT BE APPLIED IN THE GUTTER AREA OR ATOP SURFACE STRUCTURES SUCH AS MANHOLE COVERS, VALVES, VAULTS, ETC.

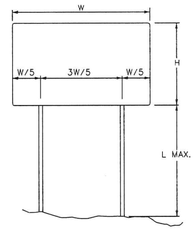
ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	TYPICAL PAVEMENT MARKING APPLICATIONS AND INTERSECTION SIGNING	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid, CHIEF ENGINEER		DWG. NO. 612.05

DESIGN FACTORS:

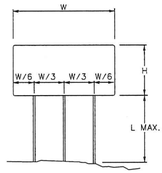
1. WIND LOAD = 80 MPH.
2. POST STEEL IS AASHTO M183.
3. MAXIMUM L = 8 FEET.
4. POST SELECTION IS DERIVED FROM THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION.
5. FOR SIGNS LESS THAN 50 SQ. FEET, SEE DRAWING NO. 616.04 & 616.05.
6. FOR LARGER SIGNS, SEE DRAWING NO. 616.06.



SIGN ON ONE POST



SIGN ON TWO POSTS



SIGN ON THREE POSTS

POST SELECTION CODE:

1	S3	x 5.7
2	S4	x 7.7
3	W6	x 9
4	W6	x 12
5	W6	x 15
6	W8	x 18
7	W8	x 21
8	W10	x 22
9	W12	x 26
10	W14	x 30

1 POST

H	W 2'	3'	4'	5'
2'	1	1	2	3
3'	1	2	3	-
4'	2	2	-	-
5'	3	3	-	-
6'	3	-	-	-
7'	-	-	-	-
8'	-	-	-	-
9'	-	-	-	-
10'	-	-	-	-
11'	-	-	-	-
12'	-	-	-	-
13'	-	-	-	-
14'	-	-	-	-
15'	-	-	-	-

2 POSTS

H	W 4'	5'	6'	7'	8'	10'	12'	14'	16'	18'	20'	22'	24'
2'	-	-	-	-	-	-	-	-	-	-	-	-	-
3'	-	1	1	1	1	-	-	-	-	-	-	-	-
4'	1	1	1	2	2	2	2	3	3	3	3	3	4
5'	1	1	2	2	2	2	3	3	3	4	4	4	4
6'	1	2	2	2	2	3	3	3	4	4	4	5	5
7'	1	2	2	3	3	3	4	4	4	5	5	5	6
8'	2	2	2	3	3	4	4	4	5	5	6	6	6
9'	2	3	3	3	3	4	4	5	5	6	6	6	7
10'	2	3	3	3	4	4	5	5	6	6	6	7	7
11'	2	3	3	3	4	5	5	6	6	7	7	8	8
12'	3	3	4	4	4	5	6	6	7	7	8	8	8
13'	-	-	4	4	5	5	6	6	7	8	8	9	9
14'	-	-	5	5	6	6	7	8	9	10	10	-	-
15'	-	-	5	6	6	7	8	9	10	-	-	-	-

3 POSTS

H	W 14'	16'	18'	20'	22'	24'	26'	28'	30'
2'	-	-	-	-	-	-	-	-	-
3'	-	-	-	-	-	-	-	-	-
4'	2	2	2	2	3	3	3	3	3
5'	2	3	3	3	3	3	4	4	4
6'	3	3	3	3	4	4	4	4	5
7'	3	3	4	4	4	4	5	5	5
8'	3	4	4	4	5	5	5	5	6
9'	4	4	5	5	5	5	6	6	6
10'	4	5	5	5	6	6	6	6	6
11'	5	5	5	6	6	6	6	7	7
12'	5	5	6	6	6	7	7	7	8
13'	5	6	6	6	7	7	8	8	8
14'	6	7	7	8	8	9	9	10	10
15'	6	8	8	9	9	10	10	-	-

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	METAL BREAKAWAY POSTS POST SELECTION	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid, CHIEF ENGINEER		DWG. NO. 616.03

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

PM-6

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

SIGNING AND PAVEMENT MARKING DETAILS – 1

DIVISION CHIEF
DATE
FILE
DWG. 109 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

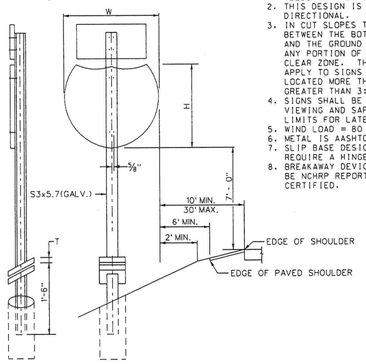
REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Signing Pavement Marking\PM-0006_ED0B1A.dgn
Tuesday, September 25, 2018 AT 11:34 AM

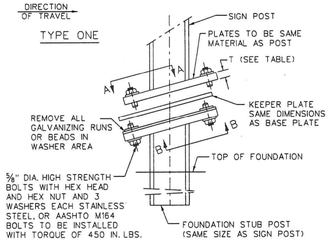
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	110	197

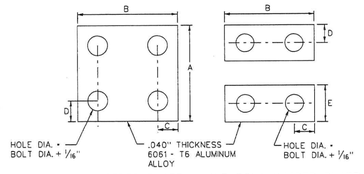
NOTES:

1. FOR USE WITH SMALL SIGNS (LESS THAN 50 SQ. FEET).
2. THIS DESIGN IS CONSIDERED DIRECTIONAL.
3. IN CUT SLOPES THE MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE SIGN AND THE GROUND SHALL BE 7 FEET FOR ANY PORTION OF THE SIGN WITHIN THE CLEAR ZONE. THIS REQUIREMENT WILL NOT APPLY TO SIGNS OR PORTIONS OF SIGNS LOCATED MORE THAN 10 FEET UP A SLOPE GREATER THAN 3:1.
4. SIGNS SHALL BE LOCATED TO PROVIDE OPTIMUM VIEWING AND SAFETY WITHIN THE INDICATED LIMITS FOR LATERAL PLACEMENT.
5. WIND LOAD = 80 MPH.
6. METAL IS AASHTO M270 GRADE 36.
7. SLIP BASE DESIGN DOES NOT REQUIRE A HINGE IN POST.
8. BREAKAWAY DEVICES SHALL BE NCHRP REPORT 350, TL-3 CERTIFIED.

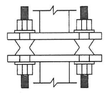


TYPE ONE





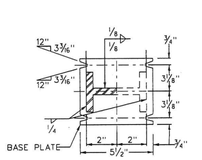
BOLT KEEPER PLATE ALT. BOLT KEEPER PLATE



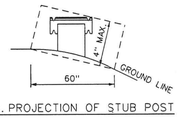
ALTERNATE TO KEEPER PLATE
4 - 5/8" BREAKAWAY BOLTS

BOLT KEEPER PLATE DATA

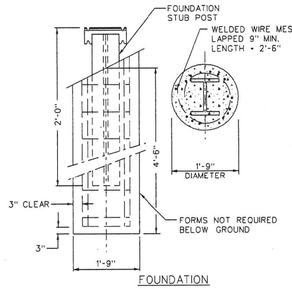
POST SHAPE	A	B	C	D	E	T
S3x5.7	3"	6 1/2"	1/2"	1/2"	1"	5/8"
S4x7.7	3"	7 1/2"	3/4"	3/4"	1 1/2"	5/8"
W6x12	7"	7 1/2"	3/4"	3/4"	1 1/2"	3/4"



SECTION A-A\SECTION B-B



MAX. PROJECTION OF STUB POST



FOUNDATION

ISSUED: 8/2015

REVISION	APPROVAL

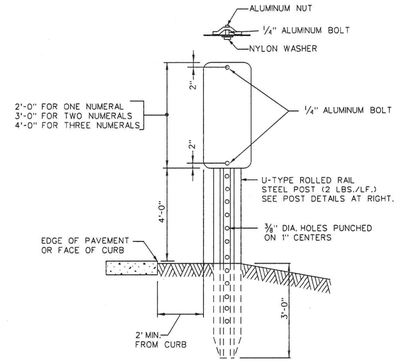
RECOMMENDED: PROJECT MANAGER

APPROVED: Mvhammed Khelid CHIEF ENGINEER

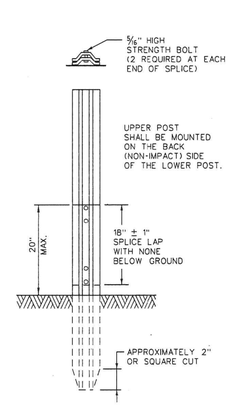
METAL BREAKAWAY POSTS
SMALL SIGNS
DETAIL - 1

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

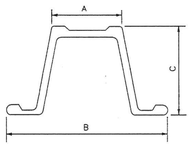
DWG. NO. 616.04



MOUNTING DETAIL



SPLICING DETAIL



1.33 LB./LF.

	MIN.	MAX.
A.	1/2"	1"
B.	2"	2 1/4"
C.	3/4"	1 1/4"

2.00 LB./LF.

	MIN.	MAX.
A.	1 3/64"	1 9/32"
B.	3 1/16"	3 1/8"
C.	1 27/64"	1 33/64"

3.00 LB./LF.

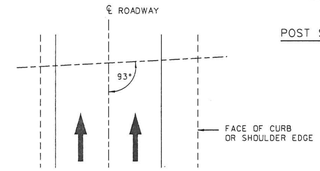
	MIN.	MAX.
A.	1 7/64"	1 5/16"
B.	3 3/16"	3 1/2"
C.	1 1/2"	1 7/8"

LENGTH IS VARIABLE.
WEIGHT IS PER LINEAR FOOT.

POST SECTION DIMENSIONS

NOTES:

1. DRIVING CAP TO BE USED WHEN DRIVING POST.
2. PANEL TO BE FABRICATED OF ASTM B209 ALLOY 6061-T6 OR 5052-H38, 0.080" THICK, AND TYPE III SHEETING.
3. REFERENCE LOCATION SIGNS SHALL MEET THE REQUIRMENTS OF MUTCD SECTION 2D.45.
4. TOP OF PANEL TO BE FLUSH WITH TOP OF POST.
5. TO BE USED IN "STRONG SOIL" ONLY.
6. REFERENCE LOCATION MARKER TO BE LOCATED IN LINE WITH DELINEATOR POSTS. EDGE OF SHOULDER OR BACK OF GUARDRAIL, IF PRESENT.



TYPICAL SIGN INSTALLATION ON SHOULDER

ISSUED: 8/2015

REVISION	APPROVAL

RECOMMENDED: PROJECT MANAGER

APPROVED: Mvhammed Khelid CHIEF ENGINEER

REFERENCE LOCATION SIGN
AND POST DETAILS

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 616.10

PM-7

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

SIGNING AND PAVEMENT MARKING DETAILS – 2

DIVISION CHIEF
DATE
FILE
DWG. 110 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Signing Pavement Marking\PM-D007_EDOBJ.dgn
Tuesday, September 25, 2018 AT 11:34 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	111	197

TABLE OF REGULATORY, WARNING & MARKING SIGNS

DWG. NO.	MESSAGE OF SIGN	SIGN TYPE CODE NO.	NO. OF SIGNS REQUIRED	SIGN SIZE	QTY. SQ. FT.
PM-1	RIGHT TURN ONLY	R3-5(I)	1	12"X18"	1.5
	STOP	RI-1	1	30"X30"	6.25
	RIGHT LANE MUST TURN RIGHT	R3-7	1	30"X30"	6.25
	ONLY ONLY ONLY	R3-8	1	96"X30"	20
	ONLY ONLY	R3-8	1	40"X30"	8.33
PM-2	DC 295	MI-5	1	24"X30"	5
	DO NOT ENTER	R5-1	2	12"X12"	2
	ONE WAY	R6-1(L)	2	36"X12"	6
	TOW AWAY NO STANDING OR PARKING ANYTIME	R7-4a(L)	2	12"X18"	3
	TOW AWAY NO STANDING OR PARKING ANYTIME	R7-4a(R)	1	12"X18"	1.5
	TWO HOUR PARKING LIMIT IN ZONE 7 7AM-8:30PM MONDAY-FRIDAY ZONE 7 RMI HOURS DISPSD	R7-109(R)	1	12"X18"	1.5
	TWO HOUR PARKING LIMIT IN ZONE 7 7AM-8:30PM MONDAY-FRIDAY ZONE 7 RMI HOURS DISPSD	R7-109(L)	1	12"X18"	1.5
	TOW AWAY NO STANDING OR PARKING ANYTIME	R7-7a	1	12"X18"	1.5
	Washington DC THE SCALE INN 1000 SCALE INN WAY "SPACE" Property of The Scale Inn Unauthorized Vehicles Will Be Towed Away		1		
	DRUG FREE SCHOOL ZONE	-	2	18"X24"	6

TABLE OF REGULATORY, WARNING & MARKING SIGNS

DWG. NO.	MESSAGE OF SIGN	SIGN TYPE CODE NO.	NO. OF SIGNS REQUIRED	SIGN SIZE	QTY. SQ. FT.
PM-2	ONE HOUR PARKING 7AM-4:30PM MONDAY-FRIDAY	R7-5(L)	1	12"X18"	1.5
	ONE HOUR PARKING 9:30AM-4:30PM MONDAY-FRIDAY	R7-7(R)	1	12"X18"	1.5
		R4-7	2	12"X18"	3
		R3-4	1	24"X24"	4
		R3-2	1	24"X24"	2
	TRUCKS RESTRICTED TO CURB LANE		1		
	SNOW EMERGENCY ROUTE NO PARKING DURING EMERGENCY TOW AWAY	R7-203	1	18"X24"	3
PM-3	-	-	-	-	-
PM-4	TOW AWAY NO STANDING OR PARKING METRO BUS ZONE R 7(MD) 7(V-VA)	R7-107	1	12"X18"	1.50
	ONLY ONLY	R3-8	1	48"X30"	10
		R6-2a(R)	2	12"X18"	3
		R7-2a(L)	1	12"X18"	1.5
	1 HOUR PARKING 7:30AM-4PM MONDAY-FRIDAY	R7-109	2	12"X18"	3
	1 HOUR PARKING 7:30AM-4PM MONDAY-FRIDAY	R7-109	1	12"X18"	1.5
	PENNSYLVANIA AVE SE	D3-1	1	47"X8"	2.62
	Nicholson ST SE	D3-1	1	33"X8"	1.84

TABLE OF REGULATORY, WARNING & MARKING SIGNS

DWG. NO.	MESSAGE OF SIGN	SIGN TYPE CODE NO.	NO. OF SIGNS REQUIRED	SIGN SIZE	QTY. SQ. FT.
PM-4	STATE LAW STOP FOR WITHIN CROSSWALKS	RI-6a	4	12"X36"	12
		R4-7	2	12"X18"	3
PM-5		WII-2	1	30"X24"	5
		WI6-7P	1	24"X12"	2
	TOW AWAY NO STANDING OR PARKING 4PM-6:30PM MONDAY-FRIDAY	R7-2a	1	12"X18"	1.5
	TOW AWAY NO STANDING OR PARKING 4PM-6:30PM MONDAY-FRIDAY	R7-2a(L)	1	12"X18"	1.5
	TOW AWAY NO STANDING OR PARKING METRO BUS ZONE R 7(MD) 7(V-VA)	R7-107a(R)	1	12"X18"	1.5
		R3-1(a)	1	30"X24"	5
	STOP	RI-1	1	30"X30"	6.25
	DO NOT ENTER	R5-1	3	12"X12"	3

NOTE:
FOR SIGNING AND PAVEMENT MARKING PLAN, REFER TO DWG. NO. PM-1 TO PM-5.

DISTRICT OF COLUMBIA · PRAVIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

PM-8

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY K.M.
DRAWN BY R.R.
PROJECT MGR. M.A.

SIGN SCHEDULE

DIVISION CHIEF
DATE
FILE
DWG. 111 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Signing Pavement Marking\pPM-P008.EDOBW1.dgn
Tuesday, September 25, 2018 AT 11:35 AM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	112	197

GENERAL NOTES:

A. ALL WORK RELATING TO THE INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH APPROPRIATE PROVISIONS OF THE LATEST VERSIONS OF DDOT STANDARD DRAWINGS, STANDARD SPECIFICATIONS AND THE CONTRACT SPECIAL PROVISIONS.
B. 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.
C. THE CONTRACTOR SHALL FURNISH ALL TEMPORARY, PORTABLE, CONCRETE BASES, STEEL TRAFFIC POLES, TRAFFIC AND PEDESTRIAN SIGNAL HEADS, STEEL TRANSFORMER BASES AND ALL MOUNTING HARDWARE.
D. THE CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO DDOT TRAFFIC SIGNAL SHOP. CONTACT MR. RANDOLPH COOPER 72 HOURS IN ADVANCE AT (202) 905-6059 TO ARRANGE SERVICE.
E. THE EXISTING PEPCO POWER IS TO BE MODIFIED. THE CONTRACTOR SHALL CONTACT PEPCO TO ARRANGE SERVICE AND PAY FEES.
F. THE CONTRACTOR SHALL RELOCATE ALL SIGNS ON EXISTING POLES TO TEMPORARY POLES, UNLESS INDICATED OTHERWISE ON PLAN.
G. NO ABOVE GROUND HARDWARE WILL BE PLACED SUCH THAT A MINIMUM 4' CONTINUOUS PATH FOR ADA PURPOSES IS NOT MAINTAINED.
H. ALL TEMPORARY POLES SHALL BE PROPERLY GROUNDED. DDOT SIGNAL TECHNICIAN WILL NOT ACTIVATE ANY SIGNAL UNLESS POLES ARE PROPERLY GROUNDED.
I. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER ALIGNMENT AND OPERATION OF ALL SIGNALS ON TEMPORARY POLES.
J. 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.
K. THE CCTV CAMERA MUST BE MAINTAINED IN ALL PHASES.
L. THE CONTRACTOR MUST COORDINATE ANY RELOCATION OF CCTV EQUIPMENT AND CABLE WITH DDOT.
M. STREETLIGHT LUMINAIRE MUST BE MAINTAINED ALL THE TIME. USE PROPOSED STREETLIGHTS AS NECESSARY.
N. THE CONTRACTOR SHALL MAINTAIN EXISTING MAGNETIC SENSOR DETECTORS AND WIRELESS REPEATERS DURING CONSTRUCTION.
O. THE CONTRACTOR SHALL MAINTAIN CONTINUOUS OPERATION OF THE EXISTING RED LIGHT CAMERA DURING CONSTRUCTION.

REMOVAL NOTES

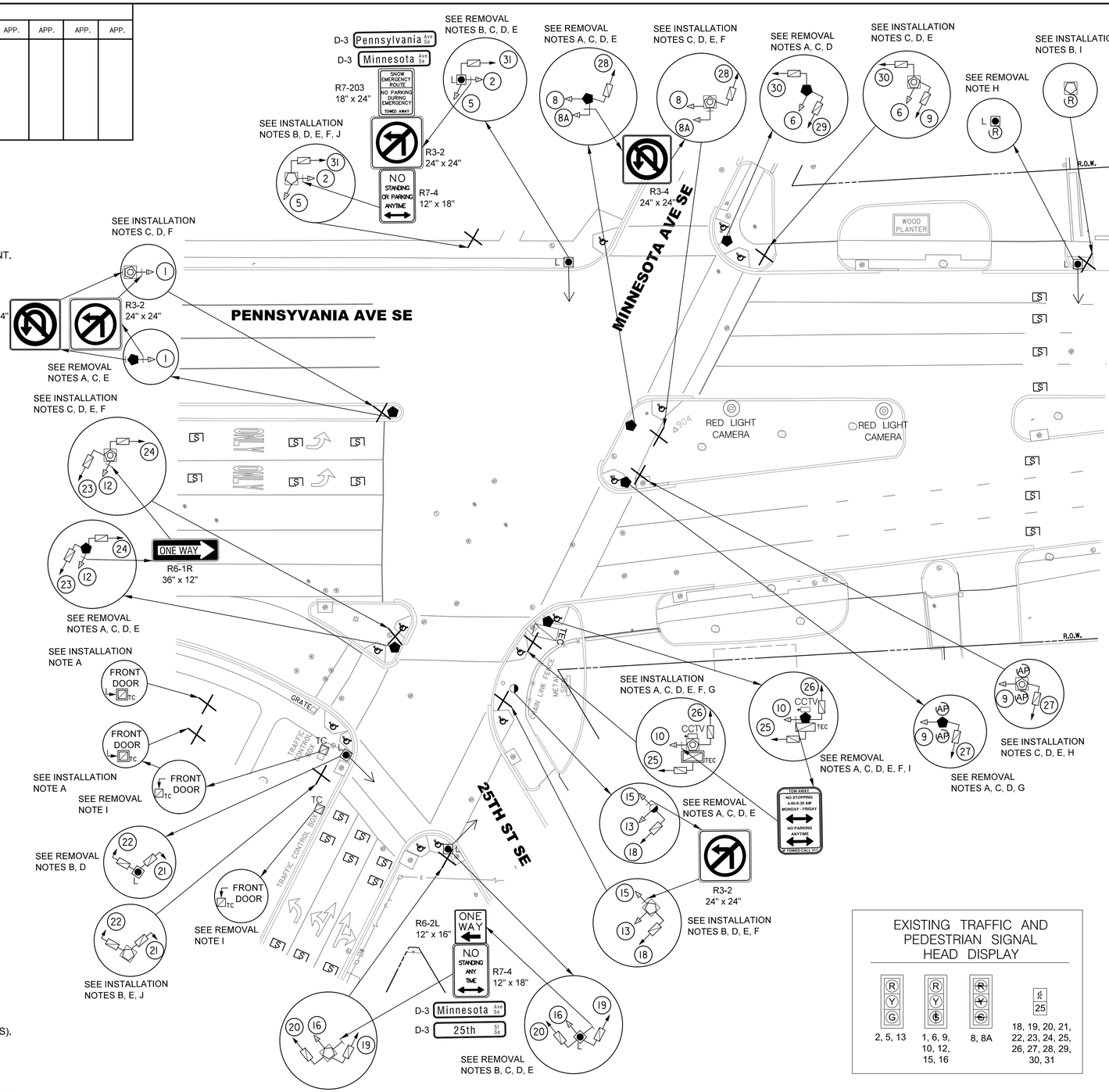
A. REMOVE THE EXISTING TRAFFIC SIGNAL POLE (ANY TYPE).
B. REMOVE THE EXISTING PENDANT POST STREETLIGHT POLE.
C. REMOVE THE EXISTING TRAFFIC SIGNAL HEAD(S).
D. REMOVE THE EXISTING PEDESTRIAN SIGNAL HEAD(S).
E. REMOVE THE EXISTING TRAFFIC SIGNS(S).
F. REMOVE THE EXISTING CCTV CAMERA.
G. REMOVE THE EXISTING SENSOR ACCESS POINT.
H. REMOVE THE EXISTING REPEATER.
I. REMOVE THE EXISTING TRAFIC SIGNAL CONTROLLER.

INSTALLATION NOTES:

A. RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER, CABINET AND COMMUNICATION TERMINATION BOX ONTO A TEMPORARY PORTABLE CONCRETE BASE.
B. INSTALL 20-FOOT STEEL, TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE ONTO A TEMPORARY PORTABLE CONCRETE BASE.
C. REINSTALL EXISTING 20 FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE ONTO A TEMPORARY PORTABLE CONCRETE BASE.
D. REINSTALL EXISTING LED TRAFFIC SIGNAL HEAD(S).
E. REINSTALL EXISTING LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD(S).
F. REINSTALL EXISTING TRAFFIC SIGN(S).
G. REINSTALL EXISTING CCTV CAMERA.
H. REINSTALL EXISTING SENSOR ACCESS POINT.
I. REINSTALL EXISTING REPEATER.
J. INSTALL SINGLE GLOBE LUMINAIRE ONTO TEMPORARY LIGHTING POLE.

CABLE NOTES:

1. DDOT PERSONNEL WILL MAKE ALL ELECTRICAL CONNECTIONS INSIDE THE CONTROLLER CABINET. THE CONTRACTOR SHALL MAKE ALL ELECTRICAL CONNECTIONS IN TRAFFIC AND PEDESTRIAN SIGNAL HEADS.
2. TEMPORARY SIGNAL CABLES EXTENDING OVER THE GROUND SURFACE SHALL BE PROTECTED BY FLEXIBLE PLASTIC CONDUIT.
3. THE CONTRACTOR SHALL PROVIDE 50 FEET OF SLACK CABLE COILED NEATLY AT EACH TEMPORARY, PORTABLE, CONCRETE BASE.



LEGEND:

- TEC — EXISTING TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION BOX
- TEC — EXISTING TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION BOX MOUNTED ON A TEMPORARY PORTABLE CONCRETE BASE
- TC — EXISTING TRAFFIC SIGNAL CONTROLLER
- TC — EXISTING TRAFFIC SIGNAL CONTROLLER MOUNTED ON A TEMPORARY PORTABLE CONCRETE BASE
- EXISTING METAL POLE WITH RED-LIGHT CAMERA FLASH LIGHT
- EXISTING METAL POLE WITH RED-LIGHT CAMERA
- PROPOSED LOCATION OF A TEMPORARY PORTABLE CONCRETE BASE
- L — EXISTING 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE
- EXISTING 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
- EXISTING AD-11 TRAFFIC SIGNAL POLE
- PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE MOUNTED ON A TEMPORARY PORTABLE CONCRETE BASE
- EXISTING 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE MOUNTED ON A TEMPORARY PORTABLE CONCRETE BASE
- EXISTING LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- EXISTING 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- EXISTING 2-SECTION LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD
- S — EXISTING MAGNETIC SENSOR DETECTOR
- AP — EXISTING SENSOR ACCESS POINT
- R — EXISTING REPEATER
- CCTV — EXISTING CCTV CAMERA
- EXISTING WHEELCHAIR RAMP
- TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- W — EXISTING WATER MANHOLE
- EXISTING WATER METER
- SD — EXISTING STORM DRAIN
- SS — EXISTING SANITARY SEWER MANHOLE
- CS — EXISTING COMBINED SEWER MANHOLE
- EXISTING GAS VALVE
- EXISTING GAS METER
- T — EXISTING TELEPHONE MANHOLE
- E — EXISTING PEPCO ELECTRICAL MANHOLE
- EXISTING PEPCO TAPHOLE
- EXISTING TREE
- R.O.W. — RIGHT OF WAY LINE

EXISTING TRAFFIC AND PEDESTRIAN SIGNAL HEAD DISPLAY

R Y G	R Y G	R Y G	25
2, 5, 13	1, 6, 9, 10, 12, 15, 16	8, 8A	18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31

GRAPHIC SCALE
20 10 0 20 40
1" = 20' HORIZ.

SEQUENCE OF OPERATION DRAWING NO. TS–118–2C OPT–1, ACISA NO. 4146

SG- 01

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE, MINNESOTA AVE SE AND 25TH ST SE
TRAFFIC SIGNAL MODIFICATION

STAGE	1
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	09/18
SCALE	1" = 20'
SHEET / OF	1 / 1
DRAWING NO.	S–1397–A

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

S.L.F. NO. _____
APPROVED BY _____ DATE

DISTRICT OF COLUMBIA · MELVIN A. BRICK · REGISTERED PROFESSIONAL ENGINEER · PE905849 · 9/24/18

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Monday, September 24, 2018 AT 05:04 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	113	197

DISTRICT OF COLUMBIA · MELANIE A. ADJISTON-BRICK · PE905849 · 9/24/18 · REGISTERED PROFESSIONAL ENGINEER

GENERAL NOTES:

A. ALL WORK RELATING TO THE INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH APPROPRIATE PROVISIONS OF THE LATEST VERSIONS OF DDOT STANDARD DRAWINGS, STANDARD SPECIFICATIONS AND THE CONTRACT SPECIAL PROVISIONS.
B. THE CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS OF ALL EQUIPMENT AND MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.
C. THE LOCATION OF PROPOSED EQUIPMENT SHOWN IS APPROXIMATE. THE LOCATION OF ALL PROPOSED EQUIPMENT AND MATERIALS SHALL BE FIELD LOCATED, VERIFIED, AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
D. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PROPOSED CONDUITS, MANHOLES, POLE FOUNDATIONS, AND CABINET FOUNDATION.
E. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRAFFIC AND PEDESTRIAN SIGNAL HEADS, STEEL TRAFFIC SIGNAL POLES, STEEL TRANSFORMER BASES, TRAFFIC SIGNAL CONTROLLER, CABINET, AND ALL MOUNTING HARDWARE.
F. THE CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO DDOT TRAFFIC SIGNAL SHOP. CONTACT MR. RANDOLPH COOPER 72 HOURS IN ADVANCE AT (202) 905-6059 TO ARRANGE SERVICE.
G. NO ABOVE GROUND HARDWARE OR EQUIPMENT SHALL BE LOCATED SUCH THAT A 4 FEET CLEAR PATH IS NOT AVAILABLE FOR ADA PURPOSES.
H. DDOT PERSONNEL WILL TERMINATE COMMUNICATION CABLES IN THE TERMINATION CABINET.
I. THE CONTRACTOR MUST COORDINATE ANY INSTALLATION OF CCTV EQUIPMENT AND CABLE WITH DDOT.
J. DDOT MUST BE NOTIFIED 36 HOURS PRIOR TO ANY INSTALLATION OF COMMUNICATION CABLE.

INSTALLATION NOTES:

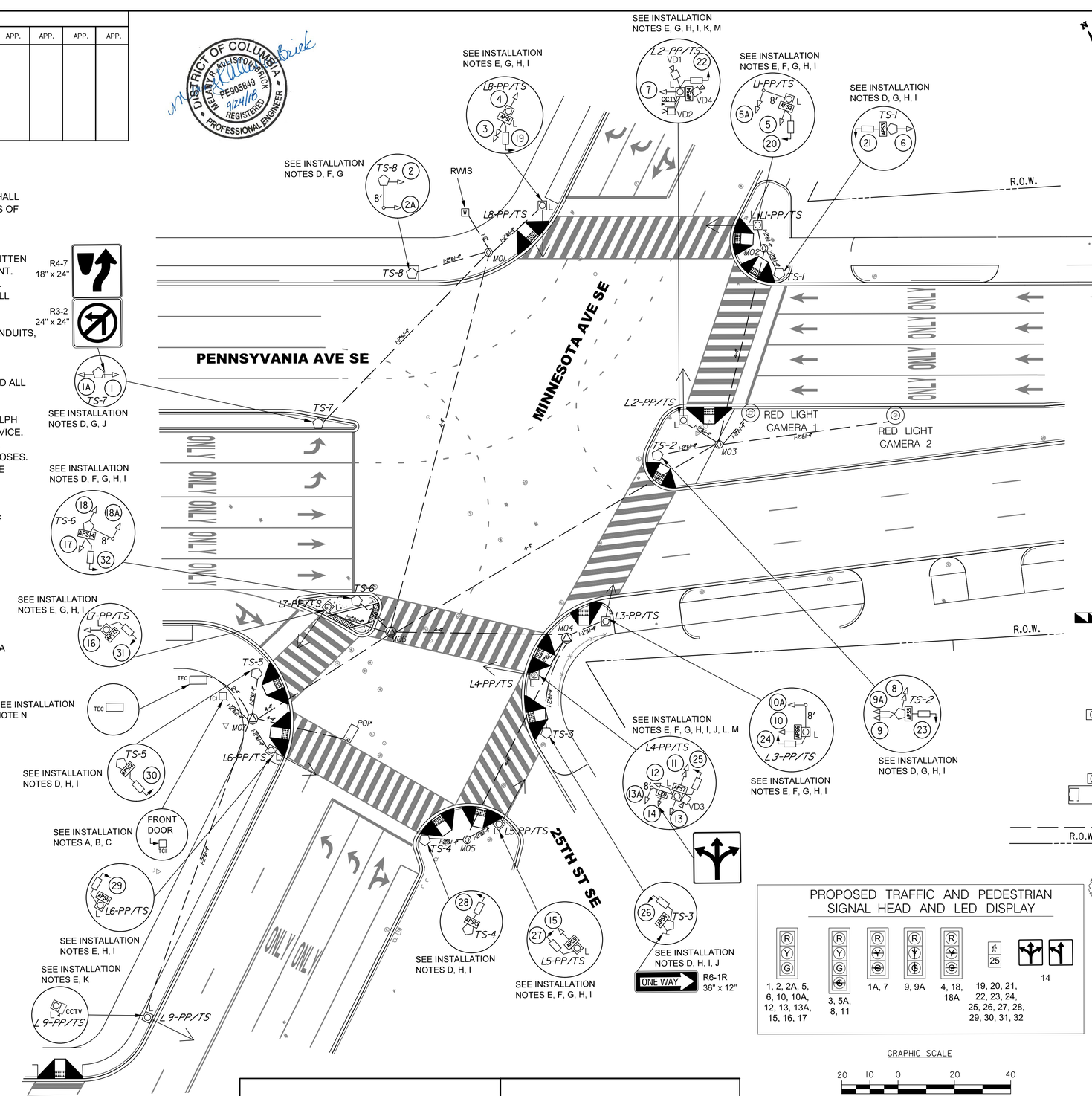
A. INSTALL TRAFFIC SIGNAL CONTROLLER CABINET FOUNDATION.
B. INSTALL TRAFFIC SIGNAL CONTROLLER CABINET.
C. INSTALL TRAFFIC SIGNAL CONTROLLER.
D. INSTALL 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE.
E. INSTALL 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE.
F. INSTALL 8-FOOT MAST ARM WITH CAP AND CLAMP.
G. INSTALL LED TRAFFIC SIGNAL HEAD(S).
H. INSTALL LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD(S).
I. INSTALL APS UNIT.
J. INSTALL TRAFFIC SIGN(S).
K. INSTALL CCTV CAMERA.
L. INSTALL LED BLANK OUT SIGN.
M. INSTALL VIDEO DETECTION CAMERA.
N. INSTALL TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION CABINET.

MAST ARM NOTES:

A. A BACK PLATE SHALL BE AFFIXED TO EACH MAST ARM MOUNTED SIGNAL HEAD.
B. THE BOTTOM OF MAST ARM MOUNTED SIGNAL HEADS SHALL BE 16 FEET ABOVE THE ROADWAY SURFACE.
C. AN ASTRO-BRAC OR APPROVED EQUIVALENT SHALL BE USED TO MOUNT SIGNAL HEADS (2A, 5A, 10A, 13A, AND 18A) TO MAST ARMS.

CABLE NOTES:

A. DDOT PERSONNEL WILL MAKE ALL ELECTRICAL CONNECTIONS INSIDE THE CONTROLLER CABINET. THE CONTRACTOR SHALL MAKE ALL ELECTRICAL CONNECTIONS IN TRAFFIC AND PEDESTRIAN SIGNAL HEADS.
B. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW, UNSPLICED 7C 14AWG STRANDED CABLE TO ALL SIGNAL HEADS. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW, UNSPLICED 4C 18AWG STRANDED CABLES TO ALL LOOP DETECTORS AND APS UNITS. A SEGMENT OF 4C 18AWG SHIELDED, STRANDED CABLE SHALL EXTEND FROM EACH POLE MOUNTED APS UNIT TO THE 2-SECTION PEDESTRIAN SIGNAL HEAD MOUNTED ON THE SAME POLE.
C. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 12 STRAND FIBER OPTIC COMMUNICATION CABLES.



LEGEND:

- PROPOSED TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION CABINET (TEC)
- PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET AND AN EXTERNAL UNINTERRUPTED POWER SUPPLY SYSTEM (TC)
- PROPOSED 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE (L)
- PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- PROPOSED 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- PROPOSED 4-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- PROPOSED 2-SECTION LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD
- PROPOSED LED BLANK OUT SIGN (LED)
- PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS)
- PROPOSED X-FOOT MAST ARM WITH CAP AND CLAMP (X')
- PROPOSED CCTV CAMERA (CCTV)
- PROPOSED VIDEO DETECTION CAMERA
- PROPOSED RWIS (W)
- PROPOSED ADA COMPLIANT WHEELCHAIR RAMP
- TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER MANHOLE (W)
- EXISTING WATER METER
- PROPOSED WATER VALVE (WV)
- PROPOSED CATCH BASIN(S)
- PROPOSED STORM DRAINAGE MANHOLE (SD)
- EXISTING SANITARY SEWER MANHOLE (SS)
- EXISTING COMBINED SEWER MANHOLE (CS)
- EXISTING GAS VALVE
- EXISTING GAS METER
- EXISTING TELEPHONE MANHOLE (T)
- PROPOSED DDOT MANHOLE (4'X4'X4')
- PROPOSED DDOT MANHOLE (3'X3'X3')
- PROPOSED HAND BOX
- EXISTING PEPCO ELECTRICAL MANHOLE (E)
- EXISTING PEPCO TAPHOLE
- PROPOSED LOCATION FOR PEPCO POWER CONNECTION
- PROPOSED DDOT ELECTRICAL PVC CONDUIT
- RIGHT OF WAY LINE (R.O.W.)
- EXISTING TREE
- PROPOSED TREE

PROPOSED TRAFFIC AND PEDESTRIAN SIGNAL HEAD AND LED DISPLAY

1, 2, 2A, 5, 6, 10, 10A, 12, 13, 13A, 15, 16, 17	3, 5A, 8, 11	1A, 7	9, 9A	4, 18, 18A	19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32	14

GRAPHIC SCALE
20 10 0 20 40
1" = 20' HORIZ.

S.L.F. NO.
APPROVED BY ____ DATE

SEQUENCE OF OPERATION DRAWING NO. TS–118–2D, ACISA NO. 4146

SG- 02

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE, MINNESOTA AVE SE AND 25TH ST SE
TRAFFIC SIGNAL MODIFICATION

SUBMITTED BY ____ PROJECT ENGINEER ____ DATE
RECOMMENDED ____ PROJECT MANAGER ____ DATE
____ ITS SYSTEMS SUPPORT MANAGER ____ DATE
APPROVED ____ PROGRAM MANAGER ____ DATE

	FINAL
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	09\18
SCALE	1" = 20'
SHEET / OF	1 / 4
DRAWING NO.	S–1397–B

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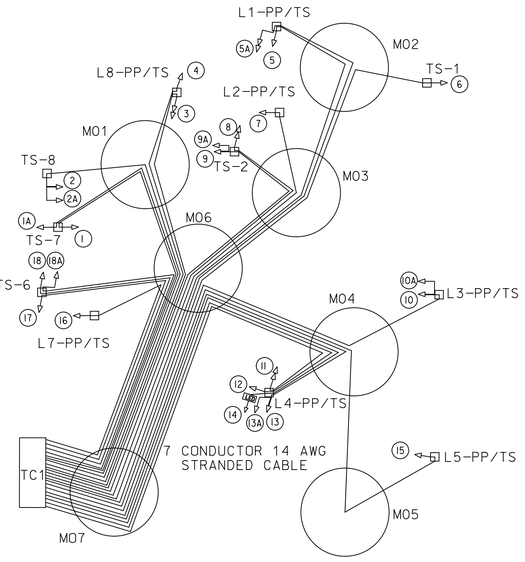
Monday, September 24, 2018 AT 05:04 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	114	197

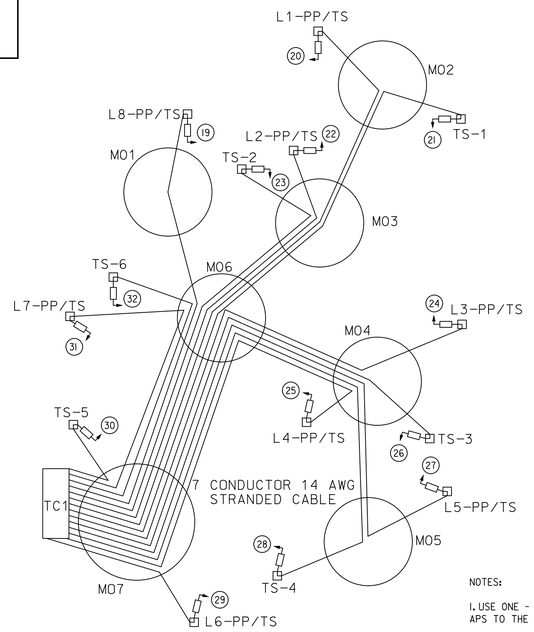
PROPOSED TRAFFIC SIGNAL HEAD AND LED CABLE SCHEMATIC



PROPOSED TRAFFIC SIGNAL HEAD AND LED CABLE ROUTING

TCI - MO7 - MO6 - MOI - [TS-7] - 1
TCI - MO7 - MO6 - MOI - [TS-7] - 1A
TCI - MO7 - MO6 - MOI - [TS-8] - 2
2 - 2A
TCI - MO7 - MO6 - MOI - [L8-PP/TS] - 3
TCI - MO7 - MO6 - MOI - [L8-PP/TS] - 4
TCI - MO7 - MO6 - MO3 - MO2 - [LI-PP/TS] - 5
5 - 5A
TCI - MO7 - MO6 - MO3 - MO2 - [TS-1] - 6
TCI - MO7 - MO6 - MO3 - [L2-PP/TS] - 7
TCI - MO7 - MO6 - MO3 - [TS-2] - 8
TCI - MO7 - MO6 - MO3 - [TS-2] - 9
9 - 9A
TCI - MO7 - MO6 - MO4 - [L3-PP/TS] - 10
10 - 10A
TCI - MO7 - MO6 - MO4 - [L4-PP/TS] - 11
TCI - MO7 - MO6 - MO4 - [L4-PP/TS] - 12
TCI - MO7 - MO6 - MO4 - [L4-PP/TS] - 13
13 - 13A
TCI - MO7 - MO6 - MO4 - [L4-PP/TS] - 14
TCI - MO7 - MO6 - MO4 - MO5 - [L5-PP/TS] - 15
TCI - MO7 - MO6 - [L7-PP/TS] - 16
TCI - MO7 - MO6 - [TS-6] - 17
TCI - MO7 - MO6 - [TS-6] - 18
18 - 18A

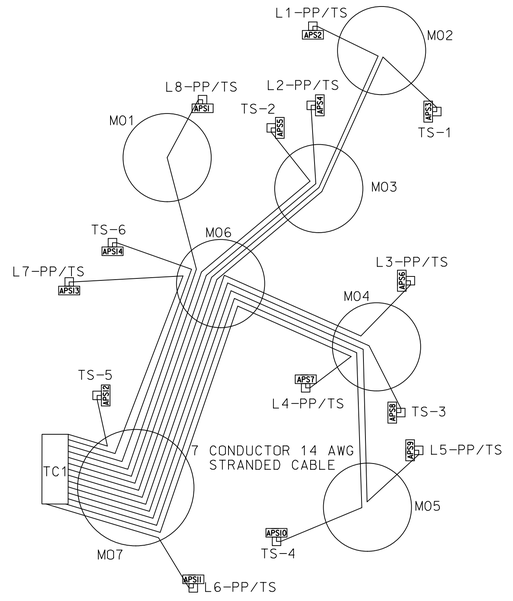
PROPOSED PEDESTRIAN SIGNAL HEAD CABLE SCHEMATIC



PROPOSED PEDESTRIAN SIGNAL HEAD CABLE ROUTING

TCI - MO7 - MO6 - MOI - [L8-PP/TS] - 19
TCI - MO7 - MO6 - MO3 - MO2 - [LI-PP/TS] - 20
TCI - MO7 - MO6 - MO3 - MO2 - [TS-1] - 21
TCI - MO7 - MO6 - MO3 - [L2-PP/TS] - 22
TCI - MO7 - MO6 - MO3 - [TS-2] - 23
TCI - MO7 - MO6 - MO4 - [L3-PP/TS] - 24
TCI - MO7 - MO6 - MO4 - [L4-PP/TS] - 25
TCI - MO7 - MO6 - MO4 - [TS-3] - 26
TCI - MO7 - MO6 - MO4 - MO5 - [L5-PP/TS] - 27
TCI - MO7 - MO6 - MO4 - MO5 - [TS-4] - 28
TCI - MO7 - [L6-PP/TS] - 29
TCI - MO7 - [TS-5] - 30
TCI - MO7 - MO6 - [L7-PP/TS] - 31
TCI - MO7 - MO6 - [TS-6] - 32

PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) CABLE SCHEMATIC



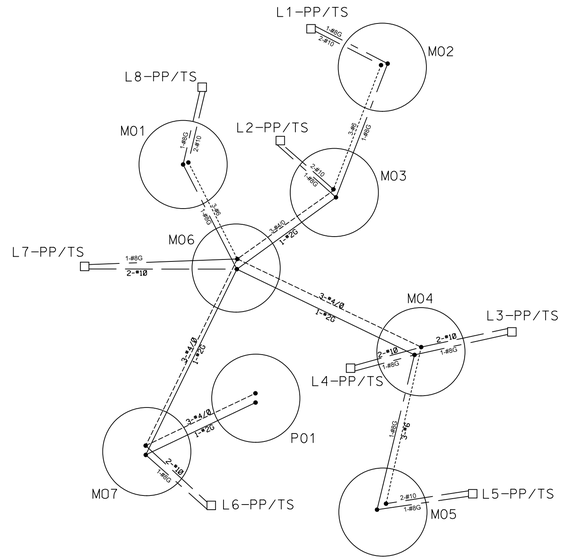
NOTES:

1. USE ONE - 4 CONDUCTOR CONNECTION FROM EACH APS TO THE ASSOCIATED PEDESTRAIN SIGNAL HEAD.

PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL HEADS (APS) CABLE ROUTING

TCI - MO7 - MO6 - MOI - [L8-PP/TS] - APSI
TCI - MO7 - MO6 - MO3 - MO2 - [LI-PP/TS] - APS2
TCI - MO7 - MO6 - MO3 - MO2 - [TS-1] - APS3
TCI - MO7 - MO6 - MO3 - [L2-PP/TS] - APS4
TCI - MO7 - MO6 - MO3 - [TS-2] - APS5
TCI - MO7 - MO6 - MO4 - [L3-PP/TS] - APS6
TCI - MO7 - MO6 - MO4 - [L4-PP/TS] - APS7
TCI - MO7 - MO6 - MO4 - [TS-3] - APS8
TCI - MO7 - MO6 - MO4 - MO5 - [L5-PP/TS] - APS9
TCI - MO7 - MO6 - MO4 - MO5 - [TS-4] - APSI0
TCI - MO7 - [L6-PP/TS] - APSII
TCI - MO7 - [TS-5] - APSI2
TCI - MO7 - MO6 - [L7-PP/TS] - APSI3
TCI - MO7 - MO6 - [TS-6] - APSI4

PROPOSED STREETLIGHT CABLE SCHEMATIC



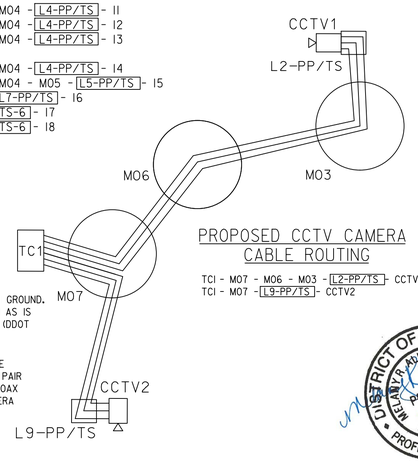
PROPOSED STREET LIGHT CABLE ROUTING

•POI - MO7 - MO6 - MO3 - MO2 - [LI-PP/TS]
•POI - MO7 - MO6 - MO3 - [L2-PP/TS]
•POI - MO7 - MO6 - MO4 - [L3-PP/TS]
•POI - MO7 - MO6 - MO4 - [L4-PP/TS]
•POI - MO7 - MO6 - MO4 - MO5 - [L5-PP/TS]
•POI - MO7 - [L6-PP/TS]
•POI - MO7 - MO6 - [L7-PP/TS]
•POI - MO7 - MO6 - MOI - [L8-PP/TS]

PROPOSED STREETLIGHT CABLE LEGEND

——— — NO. 8 STRANDED BARE COPPER GROUND WIRE
——— NO. 2 STRANDED BARE COPPER GROUND WIRE
——— — TWO NO. 10 STRANDED CABLES
---------- THREE NO. 6 STRANDED CABLES
------- THREE NO. 4/0 STRANDED CABLES
• SPLICE POINT

PROPOSED CCTV CAMERA CABLE SCHEMATIC



NOTES:

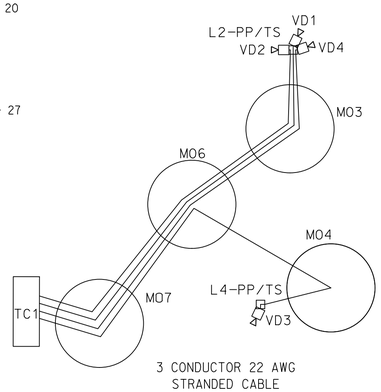
1. MOUNT POWER SUPPLY ON POLE AT APPROPRIATE LOCATION 12' TO 14' FROM GROUND.
2. MOUNT CAMERA COME ON MAST ARM AS IS SPECIFIED ON CCTV MOUNTING DETAILS (DDOT STANDARD DRAWING).

7 CONDUCTOR 14 AWG STRANDED CABLE
3 PAIR DIRECT BURIAL 19 AW TWISTED PAIR RG-6 FLOODED DIRECT BURIAL VIDEO COAX FROM POWER SUPPLY -TC- CCTV CAMERA COMPOSITE CABLE

PROPOSED CCTV CAMERA CABLE ROUTING

TCI - MO7 - MO6 - MO3 - [L2-PP/TS] - CCTVI
TCI - MO7 - [L9-PP/TS] - CCTV2

PROPOSED VIDEO DETECTION CABLE SCHEMATIC



3 CONDUCTOR 22 AWG STRANDED CABLE

PROPOSED VIDEO DETECTION CABLE ROUTING

TCI - MO7 - MO6 - MO3 - [L2-PP/TS] - VDI
TCI - MO7 - MO6 - MO3 - [L2-PP/TS] - VD2
TCI - MO7 - MO6 - MO4 - [L4-PP/TS] - VD3
TCI - MO7 - MO6 - MO3 - [L2-PP/TS] - VD4

SEQUENCE OF OPERATION DRAWING NO. TS-118-2D, ACISA NO. 4146

SG-03

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE, MINNESOTA AVE SE AND 25TH ST SE
CABLE ROUTING SCHEMATIC

FINAL
FIELD CHECKED BY: SO
DESIGNED BY: SO
DRAWN BY: RH III
REVIEWED BY: AYY
DATE: 0918
SCALE: 1" = 20'
SHEET 2 OF 4
DRAWING NO. S-1397-B

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

S.L.F. NO. _____
APPROVED BY _____ DATE

DISTRICT OF COLUMBIA · MELANIE A. SLOAN BRICK · PE905849 · 9/24/18 · REGISTERED PROFESSIONAL ENGINEER

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Monday, September 24, 2018 AT 05:04 PM

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	115	197

STATION SCHEDULE		
STATION	STATUS	DESCRIPTION
TC1	PROPOSED	TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET
M01	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (3'x3'x3')
M02	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (3'x3'x3')
M03	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (3'x3'x3')
M04	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (4'x4'x4')
M05	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (3'x3'x3')
M06	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (4'x4'x4')
M07	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (4'x4'x4')
TS-1	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-2	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-3	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-4	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-5	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-6	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE AND AN 8-FOOT MAST ARM WITH CAP AND CLAMP
TS-7	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-8	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE AND AN 8-FOOT MAST ARM WITH CAP AND CLAMP
L1-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH LUMINAIRE, A STEEL TRANSFORMER BASE, AND AN 8-FOOT MAST ARM WITH CAP AND CLAMP
L2-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH STEEL TRANSFORMER BASE, AND DECORATIVE ARM WITH TEARDROP LUMINAIRE
L3-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH LUMINAIRE, A STEEL TRANSFORMER BASE, AND AN 8-FOOT MAST ARM WITH CAP AND CLAMP
L4-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH LUMINAIRE, A STEEL TRANSFORMER BASE, AND AN 8-FOOT MAST ARM WITH CAP AND CLAMP
L5-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH STEEL TRANSFORMER BASE, AND DECORATIVE ARM WITH TEARDROP LUMINAIRE
L6-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH STEEL TRANSFORMER BASE, AND DECORATIVE ARM WITH TEARDROP LUMINAIRE
L7-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH STEEL TRANSFORMER BASE, AND DECORATIVE ARM WITH TEARDROP LUMINAIRE
L8-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH STEEL TRANSFORMER BASE, AND DECORATIVE ARM WITH TEARDROP LUMINAIRE
L9-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH STEEL TRANSFORMER BASE, AND DECORATIVE ARM WITH TEARDROP LUMINAIRE
*P01	EXISTING	PEPCO ELECTRICAL MANHOLE

CONDUIT SUMMARY				
LOCATION TO LOCATION	STATUS	SIZE (DIA.) (IN)	NUMBER OF CONDUITS	QUANTITY (FT)
*P01 - M07	PROPOSED	4	4	36
TC1 - M07	PROPOSED	2,4	1,2	13
M07 - TEC	PROPOSED	4	2	22
M07 - TS-5	PROPOSED	2,4	1,1	17
M07 - L6-PP/TS	PROPOSED	2,4	1,1	13
M07 - L9-PP/TS	PROPOSED	2,4	1,1	113
M07 - M06	PROPOSED	4	4	58
M06 - TS-6	PROPOSED	2,4	1,1	17
M06 - L7-PP/TS	PROPOSED	2,4	1,1	25
M06 - M04	PROPOSED	4	4	63
M06 - M03	PROPOSED	4	4	135
M06 - M01	PROPOSED	4	4	137
M04 - TS-3	PROPOSED	2,4	1,1	35
M04 - L3-PP/TS	PROPOSED	2,4	1,1	16
M04 - L4-PP/TS	PROPOSED	2,4	1,1	18
M04 - M05	PROPOSED	4	4	80
M05 - TS-4	PROPOSED	2,4	1,1	15
M05 - L5-PP/TS	PROPOSED	2,4	1,1	13
M03 - TS-2	PROPOSED	2,4	1,1	23
M03 - L2-PP/TS	PROPOSED	2,4	1,1	16
M03 - RLC1	PROPOSED	2,4	1,1	16
M03 - RLC2	PROPOSED	2,4	1,1	64
M03 - M02	PROPOSED	4	4	72
M02 - TS-1	PROPOSED	2,4	1,1	11
M02 - L1-PP/TS	PROPOSED	2,4	1,1	9
M01 - TS-7	PROPOSED	2,4	1,1	86
M01 - TS-8	PROPOSED	2,4	1,1	29
M01 - L8-PP/TS	PROPOSED	2,4	1,1	26

STREETLIGHT CABLE SUMMARY							
SCHEDULE			QUANTITY				
			CABLE			GROUNDING	
FROM STA.	TO STA.	DISTANCE	4/0	#6	#10	#2	#8
*P01	M07	36	138			46	
M07	L6-PP/TS	13			46		23
M07	L9-PP/TS	113			246		243
M07	M06	62	216			72	
M06	L7-PP/TS	25			70		35
M06	M01	137		441			147
M01	L8-PP/TS	26			72		36
M06	M03	135	435			145	
M03	L2-PP/TS	16			52		26
M06	M04	63	219			73	
M04	L3-PP/TS	16			52		26
M04	L4-PP/TS	18			56		28
M03	M02	72		246			82
M02	L1-PP/TS	9			38		19
M04	M05	80		270			90
M05	L5-PP/TS	13			46		23
	TOTAL		1008	957	678	336	658

STREETLIGHT POLE INFORMATION (POLE INSTALLATION)							
DRAWING LIGHT NO.	MARYLAND GRID PLAT	GRID NO.	LOCATION	TYPE OF POLE	LIGHT SOURCE	LAMP WATTS	DATE IN SERVICE
L1-PP/TS			NE CORNER OF PENNSYLVANIA AVE S.E. AND MINNESOTA AVE S.E.	PEND POST	LED	150W	
L2-PP/TS			PENNSYLVANIA AVE S.E. MEDIAN EAST OF MINNESOTA AVE S.E.	PEND POST	LED	150W	
L3-PP/TS			SE CORNER OF PENNSYLVANIA AVE S.E., 25TH STREET AND MINNESOTA AVE S.E.	PEND POST	LED	150W	
L4-PP/TS			SE CORNER OF PENNSYLVANIA AVE S.E., 25TH STREET AND MINNESOTA AVE S.E.	PEND POST	LED	150W	
L5-PP/TS			SE CORNER OF 25TH ST AND MINNESOTA AVE S.E.	PEND POST	LED	150W	
L6-PP/TS			SW CORNER OF PENNSYLVANIA AVE S.E. AND MINNESOTA AVE S.E.	PEND POST	LED	150W	
L7-PP/TS			ISLAND BETWEEEN PENNSYLVANIA AVE S.E., 25TH ST S.E. AND MINNESOTA AVE S.E.	PEND POST	LED	150W	
L8-PP/TS			NW CORNER OF PENNSYLVANIA AVE S.E. AND MINNESOTA AVE S.E.	PEND POST	LED	150W	
L9-PP/TS			NW CORNER OF MINNESOTA AVE S.E. AND ALLEY-3	PEND POST	LED	150W	

STREETLIGHT POLE INFORMATION (POLE REMOVAL)							
DRAWING LIGHT NO.	MARYLAND GRID PLAT	GRID NO.	LOCATION	TYPE OF POLE	LIGHT SOURCE	LAMP WATTS	DATE REMOVED FROM SERVICE
R06-PP/TS			SE CORNER OF 25TH ST AND MINNESOTA AVE S.E.	PEND POST	HPS	400W	
R07-PP/TS			SW CORNER OF 25TH ST AND MINNESOTA AVE S.E.	PEND POST	HPS	400W	
R08-PP/TS			NW CORNER OF PENNSYLVANIA AVE S.E. AND MINNESOTA AVE S.E.	PEND POST	HPS	400W	

SG- 04

SEQUENCE OF OPERATION DRAWING NO. TS-118-2D, ACISA NO. 4146

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE, MINNESOTA AVE SE AND 25TH ST SE
SCHEDULE AND QUANTITIES

FINAL

FIELD CHECKED BY: SO
DESIGNED BY: SO
DRAWN BY: RH III
REVIEWED BY: AYY
DATE: 09/18
SCALE: 1" = 20'
SHEET 3 OF 4
DRAWING NO. S-1397-B

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

DISTRICT OF COLUMBIA • MELVIN R. ADDISON BRICK • PE905849 • 9/24/18 • REGISTERED PROFESSIONAL ENGINEER

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Engineers, Architects Development Consultants
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PHONE: (301) 927-1900 FAX: (301) 927-2800
www.tooledesign.com
PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

S.L.F. NO. _____
APPROVED BY _____ DATE

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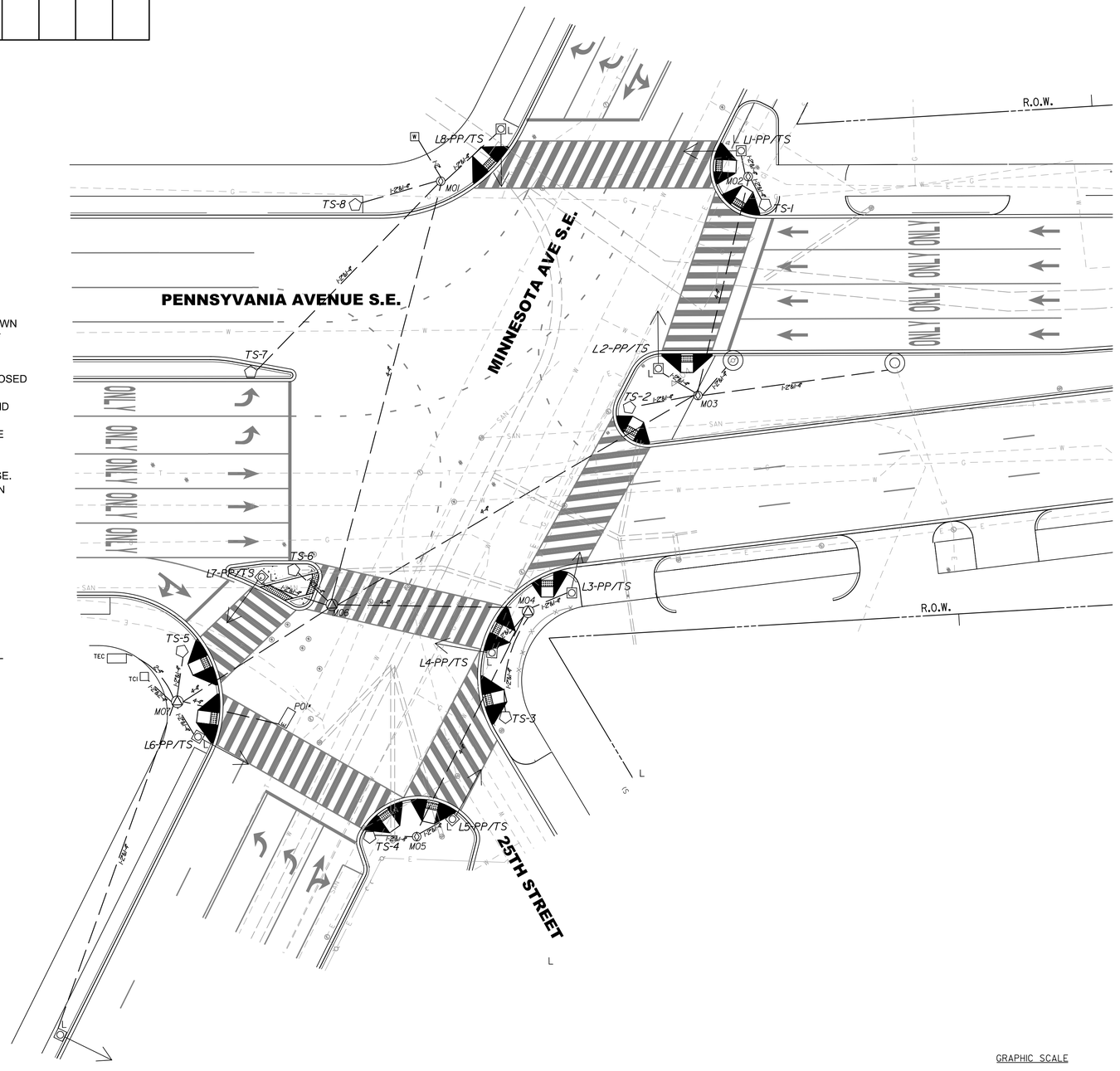
Monday, September 24, 2018 AT 05:04 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	116	197

UTILITY NOTES:

1. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE BASED ON FIELD SURVEY DATA AND/OR RECORD DRAWINGS. THE LOCATION OF UTILITIES SHOWN IS APPROXIMATE AND THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE. 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 AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES. IF A UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER OF SAID UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW THE GROUND SHALL BE REPAIRED BY OR UNDER THE DIRECTION OF THE OWNER AT CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCES 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. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO EXCAVATING.
4. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 2 FOOT HORIZONTAL CLEARANCE TO ALL UTILITIES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PROPOSED CONDUITS.



LEGEND:

- TEC — PROPOSED TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION CABINET
- TC — PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET AND AN EXTERNAL UNINTERRUPTED POWER SUPPLY SYSTEM
- L — PROPOSED 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE
- PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- PROPOSED ADA COMPLIANT WHEELCHAIR RAMP
- TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- W — EXISTING WATER MANHOLE
- EXISTING WATER METER
- WV — PROPOSED WATER VALVE
- PROPOSED CATCH BASIN(S)
- SD — PROPOSED STORM DRAINAGE MANHOLE
- SS — EXISTING SANITARY SEWER MANHOLE
- CS — EXISTING COMBINED SEWER MANHOLE
- EXISTING GAS VALVE
- EXISTING GAS METER
- T — EXISTING TELEPHONE MANHOLE
- PROPOSED DDOT MANHOLE (4'X4'X4')
- PROPOSED DDOT MANHOLE (3'X3'X3')
- PROPOSED HAND BOX
- E — EXISTING PEPCO ELECTRICAL MANHOLE
- EXISTING PEPCO TAPHOLE
- PROPOSED LOCATION FOR PEPCO POWER CONNECTION
- EXISTING TREE
- PROPOSED TREE
- E — PROPOSED DDOT ELECTRICAL PVC CONDUIT
- R.O.W. — RIGHT OF WAY LINE
- SAN — EXISTING COMBINED SEWER LINE (FROM SURVEY, <24")
- W — EXISTING WATER LINE (FROM RECORD)
- T — EXISTING TELEPHONE LINE (FROM RECORD)
- G — EXISTING GAS LINE (FROM RECORD)
- E — EXISTING PEPCO ELECTRICAL LINE (FROM RECORD)

GRAPHIC SCALE

20 10 0 20 40

1" = 20' HORIZ.

DISTRICT OF COLUMBIA · MELANIE ADAMS STRICK · PE905849 · REGISTERED · 9/24/18 · PROFESSIONAL ENGINEER

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S.L.F. NO.

APPROVED BY _____ DATE

SEQUENCE OF OPERATION DRAWING NO. TS-118-2D, ACISA NO. 4146

SG- 05

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE, MINNESOTA AVE SE AND 25TH ST SE
UTLITIY PLAN

FINAL

FIELD CHECKED BY: SO
DESIGNED BY: SO
DRAWN BY: RH III
REVIEWED BY: AYY
DATE: 0918
SCALE: 1" = 20'
SHEET 4 OF 4
DRAWING NO. S-1397-B

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

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Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	117	197

GENERAL NOTES:

A. ALL WORK RELATING TO THE INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH APPROPRIATE PROVISIONS OF THE LATEST VERSIONS OF DDOT STANDARD DRAWINGS, STANDARD SPECIFICATIONS AND THE CONTRACT SPECIAL PROVISIONS.
B. THE CONTRACTOR SHALL SUBMIT TO THE DDOT CATALOG CUTS FOR ALL MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.
C. THE CONTACTOR SHALL FURNISH ALL TEMPORARY, PORTABLE, CONCRETE BASES, STEEL TRAFFIC POLES, TRAFFIC AND PEDESTRIAN SIGNAL HEADS, STEEL TRANSFORMER BASES AND ALL MOUNTING HARDWARE.
D. THE CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO DDOT TRAFFIC SIGNAL SHOP. CONTACT MR. RANDOLPH COOPER 72 HOURS IN ADVANCE AT (202) 905-6059 TO ARRANGE SERVICE.
E. THE EXISTING PEPCO POWER IS TO BE MODIFIED. THE CONTRACTOR SHALL CONTACT PEPCO TO ARRANGE SERVICE AND PAY FEES.
F. THE CONTRACTOR SHALL RELOCATE ALL SIGNS ON EXISTING POLES TO TEMPORARY POLES, UNLESS INDICATED OTHERWISE ON PLAN.
G. NO ABOVE GROUND HARDWARE WILL BE PLACED SUCH THAT A MINIMUM 4' CONTINUOUS PATH FOR ADA PURPOSES IS NOT MAINTAINED.
H. ALL TEMPORARY POLES SHALL BE PROPERLY GROUNDED. DDOT SIGNAL TECHNICIAN WILL NOT ACTIVATE ANY SIGNAL UNLESS POLES ARE PROPERLY GROUNDED.
I. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER ALIGNMENT AND OPERATION OF ALL SIGNALS ON TEMPORARY POLES.
J. 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.
K. THE CCTV CAMERA MUST BE MAINTAINED IN ALL PHASES.
L. THE CONTRACTOR MUST COORDINATE ANY RELOCATION OF CCTV EQUIPMENT AND CABLE WITH DDOT.
M. STREETLIGHT LUMINARE MUST BE MAINTAINED ALL THE TIME. USE PROPER STREETLIGHTS AS NECESSARY.
N. THE CONTRACTOR SHALL MAINTAIN EXISTING MAGNETIC SENSOR DETECTORS AND WIRELESS REPEATERS DURING CONSTRUCTION.

REMOVAL NOTES:

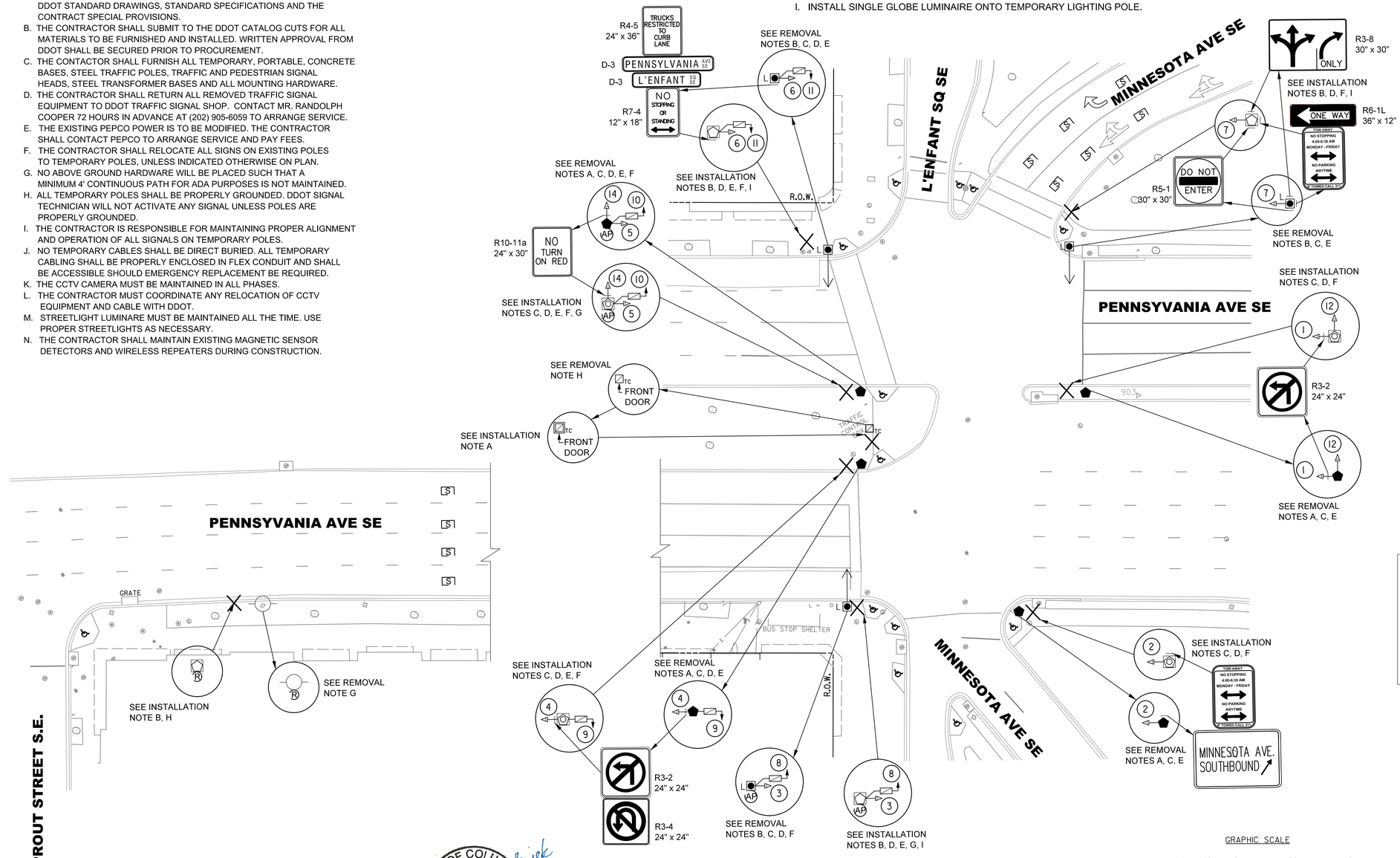
A. REMOVE THE EXISTING TRAFFIC SIGNAL POLE (ANY TYPE).
B. REMOVE THE EXISTING PENDANT POST STREETLIGHT POLE.
C. REMOVE THE EXISTING TRAFFIC SIGNAL HEAD(S).
D. REMOVE THE EXISTING PEDESTRIAN SIGNAL HEAD(S).
E. REMOVE THE EXISTING TRAFFIC SIGN(S).
F. REMOVE THE EXISTING SENSOR ACCESS POINT.
G. REMOVE THE EXISTING REPEATER.
H. REMOVE THE EXISTING TRAFIC SIGNAL CONTROLLER.

INSTALLATION NOTES:

A. RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER AND CABINET ONTO A TEMPORARY, PORTABLE, CONCRETE BASE.
B. INSTALL 20-FOOT STEEL, TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE ONTO A TEMPORARY, PORTABLE, CONCRETE BASE.
C. REINSTALL EXISTING 20 FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE ONTO A TEMPORARY PORTABLE CONCRETE BASE.C. REINSTALL EXISTING LED TRAFFIC SIGNAL HEAD(S).
D. REINSTALL EXISTING LED TRAFFIC SIGNAL HEAD(S).
E. REINSTALL EXISTING LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD(S).
F. REINSTALL EXISTING TRAFFIC SIGN(S).
G. REINSTALL EXISTING SENSOR ACCESS POINT.
H. REINSTALL EXISTING REPEATER.
I. INSTALL SINGLE GLOBE LUMINAIRE ONTO TEMPORARY LIGHTING POLE.

CABLE NOTES:

1. DDOT PERSONNEL WILL MAKE ALL ELECTRICAL CONNECTIONS INSIDE THE CONTROLLER CABINET. THE CONTRACTOR SHALL MAKE ALL ELECTRICAL CONNECTIONS IN TRAFFIC AND PEDESTRIAN SIGNAL HEADS.
2. TEMPORARY SIGNAL CABLES EXTENDING OVER THE GROUND SURFACE SHALL BE PROTECTED BY FLEXIBLE PLASTIC CONDUIT.
3. THE CONTRACTOR SHALL PROVIDE 50 FEET OF SLACK CABLE COILED NEATLY AT EACH TEMPORARY, PORTABLE, CONCRETE BASE.



LEGEND:

- EXISTING TRAFFIC SIGNAL CONTROLLER
- EXISTING TRAFFIC SIGNAL CONTROLLER MOUNTED ON A TEMPORARY PORTABLE CONCRETE BASE
- PROPOSED LOCATION OF A TEMPORARY PORTABLE CONCRETE BASE
- EXISTING 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE
- EXISTING 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH STEEL TRANSFORMER BASE
- PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE MOUNTED ON A TEMPORARY PORTABLE CONCRETE BASE
- EXISTING 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE MOUNTED ON A TEMPORARY PORTABLE CONCRETE BASE
- EXISTING LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- EXISTING 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- EXISTING 2-SECTION LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD
- EXISTING MAGNETIC SENSOR DETECTOR
- EXISTING SENSOR ACCESS POINT
- EXISTING REPEATER
- EXISTING WHEELCHAIR RAMP
- TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- EXISTING WATER MANHOLE
- EXISTING WATER METER
- EXISTING STORM DRAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING COMBINED SEWER MANHOLE
- EXISTING GAS VALVE
- EXISTING GAS METER
- EXISTING TELEPHONE MANHOLE
- EXISTING PEPCO ELECTRICAL MANHOLE
- EXISTING PEPCO TAPHOLE
- EXISTING TREE
- RIGHT OF WAY LINE

EXISTING TRAFFIC AND PEDESTRIAN SIGNAL HEAD DISPLAY

2, 3, 5, 7, 12, 14	1, 4, 6	8, 9, 10, 11

GRAPHIC SCALE
20 10 0 20 40
1" = 20' HORIZ.

SEQUENCE OF OPERATION DRAWING NO. TS–118–1C OPT–1, ACISA NO. 4201

SG- 06

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE
AND L'ENFANT SQ, SE
TRAFFIC SIGNAL MODIFICATION

STAGE	1
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	09/18
SCALE	1" = 20'
SHEET	1 OF 1
DRAWING NO.	S–2461

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

S.L.F. NO. _____
APPROVED BY _____ DATE

DISTRICT OF COLUMBIA · ANTHONY A. ALSTON · PE905849 · 9/24/18 · REGISTERED · PROFESSIONAL ENGINEER

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Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	118	197

GENERAL NOTES:

A. ALL WORK RELATING TO THE INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH APPROPRIATE PROVISIONS OF THE LATEST VERSIONS OF DDOT STANDARD DRAWINGS, STANDARD SPECIFICATIONS AND THE CONTRACT SPECIAL PROVISIONS.
B. THE CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS OF ALL EQUIPMENT AND MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.
C. THE LOCATION OF PROPOSED EQUIPMENT SHOWN IS APPROXIMATE. THE LOCATION OF ALL PROPOSED EQUIPMENT AND MATERIALS SHALL BE FIELD LOCATED, VERIFIED, AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
D. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PROPOSED CONDUITS, MANHOLES, POLE FOUNDATIONS, AND CABINET FOUNDATION.
E. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRAFFIC AND PEDESTRIAN SIGNAL HEADS, STEEL TRAFFIC SIGNAL POLES, STEEL TRANSFORMER BASES, MAGNETIC SENSOR DETECTORS, ACCESS POINT, REPEATERS, TRAFFIC SIGNAL CONTROLLER, CABINET, AND ALL MOUNTING HARDWARE.
F. THE CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO DDOT TRAFFIC SIGNAL SHOP, CONTACT MR. RANDOLPH COOPER 72 HOURS IN ADVANCE AT (202) 905-6059 TO ARRANGE SERVICE.
G. NO ABOVE GROUND HARDWARE OR EQUIPMENT SHALL BE LOCATED SUCH THAT 4 FEET CLEAR PATH IS NOT AVAILABLE FOR ADA PURPOSES.
H. DDOT PERSONNEL WILL TERMINATE COMMUNICATION CABLES IN THE TERMINATION CABINET.
I. DDOT MUST BE NOTIFIED 36 HOURS PRIOR TO ANY INSTALLATION OF COMMUNICATION CABLE.
J. CONTRACTOR SHALL VERIFY UTILITY CONFLICTS NEAR POLE LOCATION. TS-11 MAY REQUIRE SADDLE FOUNDATION DUE TO UTILITY CONFLICT.

INSTALLATION NOTES:

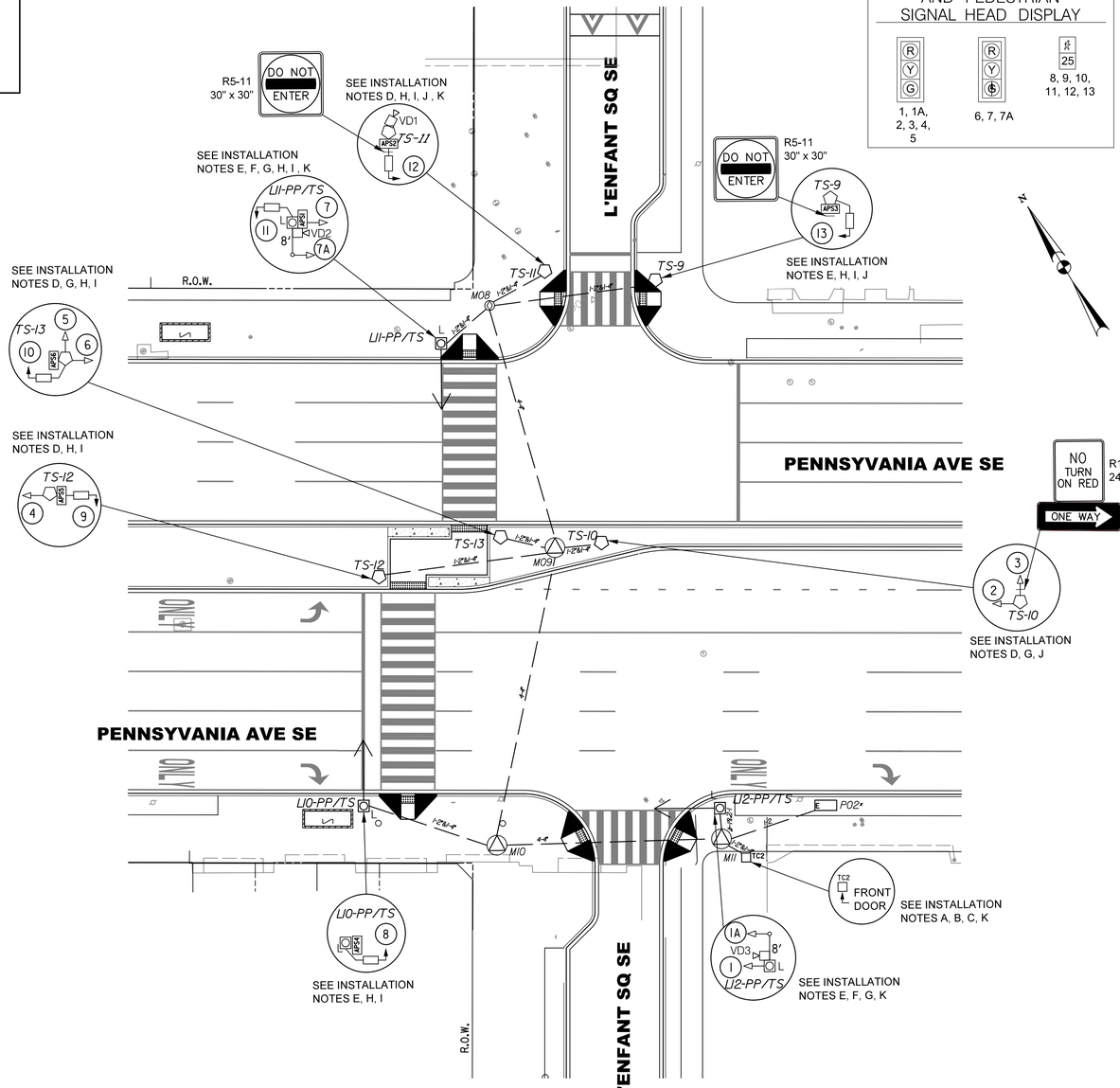
A. INSTALL TRAFFIC SIGNAL CONTROLLER CABINET FOUNDATION.
B. INSTALL TRAFFIC SIGNAL CONTROLLER CABINET.
C. INSTALL TRAFFIC SIGNAL CONTROLLER.
D. INSTALL 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH STEEL TRANSFORMER BASE.
E. INSTALL 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE.
F. INSTALL 8-FOOT MAST ARM WITH CAP AND CLAMP.
G. INSTALL LED TRAFFIC SIGNAL HEAD(S).
H. INSTALL LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD(S).
I. INSTALL APS UNIT.
J. INSTALL TRAFFIC SIGN(S).
K. INSTALL VIDEO DETECTION CAMERA.

CABLE NOTES:

A. DDOT PERSONNEL WILL MAKE ALL ELECTRICAL CONNECTIONS INSIDE THE CONTROLLER CABINET. THE CONTRACTOR SHALL MAKE ALL ELECTRICAL CONNECTIONS IN TRAFFIC AND PEDESTRIAN SIGNAL HEADS.
B. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW, UNSPLICED 7C 14AWG STRANDED CABLE TO ALL SIGNAL HEADS.
C. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW, UNSPLICED 7C 18AWG STRANDED CABLES TO ALL LOOP DETECTORS AND APS UNITS. A SEGMENT OF 4C 18AWG SHIELDED, STRANDED CABLE SHALL EXTEND FROM EACH POLE MOUNTED APS UNIT TO THE 2-SECTION PEDESTRIAN SIGNAL HEAD MOUNTED ON THE SAME POLE.
D. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 12 STRAND FIBER OPTIC COMMUNICATION CABLES.

MAST ARM NOTES:

A. A BACK PLATE SHALL BE AFFIXED TO EACH MAST ARM MOUNTED SIGNAL HEAD.
B. THE BOTTOM OF MAST ARM MOUNTED SIGNAL HEADS SHALL BE 16 FEET ABOVE ROADWAY SURFACE.
C. AN ASTRO-BRAC OR APPROVED EQUIVALENT SHALL BE USED TO MOUNT SIGNAL HEADS (1A, 7A) TO MAST ARMS.



PROPOSED TRAFFIC AND PEDESTRIAN SIGNAL HEAD DISPLAY

LEGEND:

- PROPOSED TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION CABINET (TEC)
- PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET AND AN EXTERNAL UNINTERRUPTED POWER SUPPLY SYSTEM (TC)
- PROPOSED 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE (L)
- PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- PROPOSED 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- PROPOSED 2-SECTION LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD
- PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS)
- PROPOSED X-FOOT MAST ARM WITH CAP AND CLAMP (X')
- PROPOSED VIDEO DETECTION CAMERA
- PROPOSED ADA COMPLIANT WHEELCHAIR RAMP
- TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER MANHOLE (W)
- EXISTING WATER METER
- PROPOSED WATER VALVE
- PROPOSED CATCH BASIN(S) (MV)
- PROPOSED STORM DRAINAGE MANHOLE
- EXISTING SANITARY SEWER MANHOLE (SD)
- EXISTING COMBINED SEWER MANHOLE (SS)
- EXISTING GAS VALVE (GS)
- EXISTING GAS METER
- EXISTING TELEPHONE MANHOLE
- PROPOSED DDOT MANHOLE (4'X4'X4') (T)
- PROPOSED DDOT MANHOLE (3'X3'X3')
- PROPOSED HAND BOX
- EXISTING PEPCO ELECTRICAL MANHOLE (E)
- EXISTING PEPCO TAPHOLE
- PROPOSED LOCATION FOR PEPCO POWER CONNECTION
- EXISTING TREE
- PROPOSED TREE
- PROPOSED DDOT ELECTRICAL PVC CONDUIT
- R.O.W. RIGHT OF WAY LINE

SG- 07

SEQUENCE OF OPERATION DRAWING NO. TS–118–1D, ACISA NO. 4201

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE
AND L'ENFANT SQ SE
TRAFFIC SIGNAL MODIFICATION

FINAL

FIELD CHECKED BY: SO
DESIGNED BY: SO
DRAWN BY: RH III
REVIEWED BY: AYY
DATE: 0918
SCALE: 1" = 20'
SHEET 1 OF 4
DRAWING NO. S–2461

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

GRAPHIC SCALE
20 10 0 20 40
1" = 20' HORIZ.

S.L.F. NO. _____
APPROVED BY _____ DATE _____

DISTRICT OF COLUMBIA • MELANIE A. SLOAN-BROWN • PE905849 • 9/24/18 • REGISTERED • PROFESSIONAL ENGINEER

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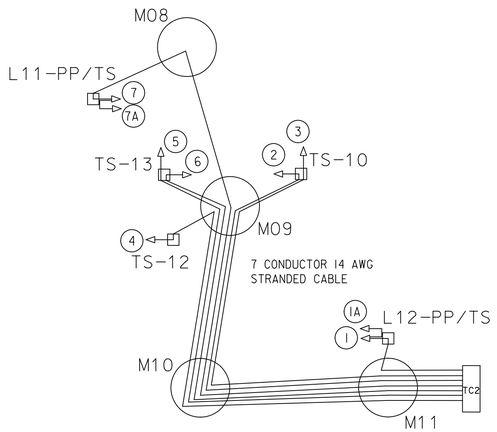
Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	119	197

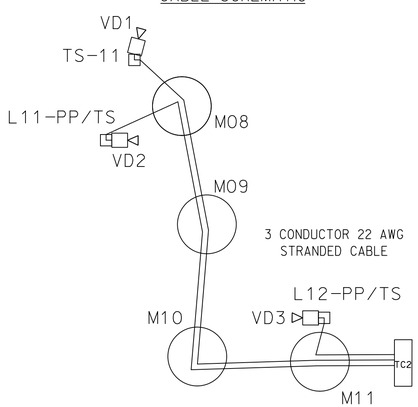
PROPOSED TRAFFIC SIGNAL HEAD CABLE SCHEMATIC



PROPOSED TRAFFIC SIGNAL HEAD CABLE ROUTING

TC2 - MII - L12-PP/TS - 1
1 - 1A
TC2 - MII - MIO - M09 - TS-10 - 2
TC2 - MII - MIO - M09 - TS-10 - 3
TC2 - MII - MIO - M09 - TS-12 - 4
TC2 - MII - MIO - M09 - TS-13 - 5
TC2 - MII - MIO - M09 - TS-13 - 6
TC2 - MII - MIO - M09 - M08 - LII-PP/TS - 7
7 - 7A

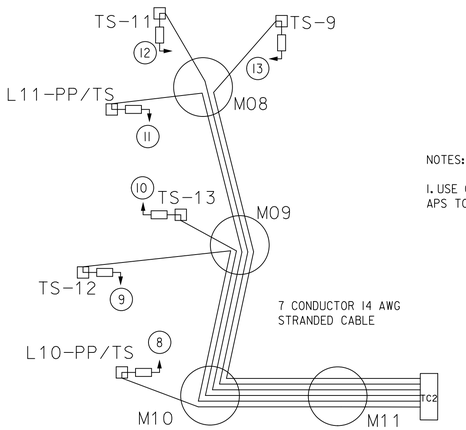
PROPOSED VIDEO DETECTION CAMERA CABLE SCHEMATIC



PROPOSED VIDEO DETECTION CAMERA CABLE ROUTING

TC2 - MII - MIO - M09 - M08 - TS-11 - VDI
TC2 - MII - MIO - M09 - M08 - LII-PP/TS - VD2
TC2 - MII - L12-PP/TS - VD3

PROPOSED PEDESTRIAN SIGNAL HEAD CABLE SCHEMATIC



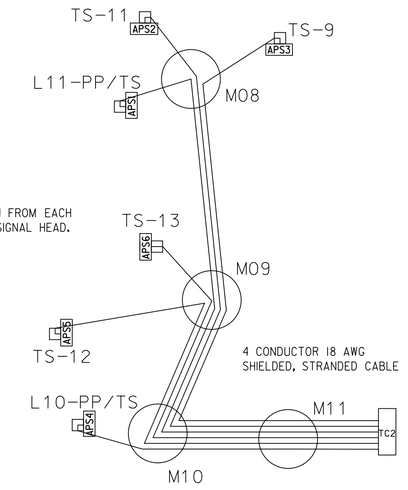
PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL HEAD CABLE ROUTING

TC2 - MII - MIO - M09 - M08 - LII-PP/TS - 11
TC2 - MII - MIO - M09 - M08 - TS-11 - 12
TC2 - MII - MIO - M09 - M08 - TS-9 - 13
TC2 - MII - MIO - L10-PP/TS - 8
TC2 - MII - MIO - M09 - TS-12 - 9
TC2 - MII - MIO - M09 - TS-13 - 10

NOTES:

1. USE ONE - 4 CONDUCTOR CONNECTION FROM EACH APS TO THE ASSOCIATED PEDESTRAIN SIGNAL HEAD.

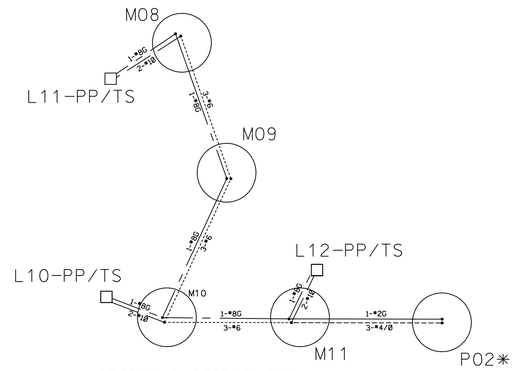
PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) CABLE SCHEMATIC



PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) CABLE ROUTING

TC2 - MII - MIO - M09 - M08 - LII-PP/TS - APSI
TC2 - MII - MIO - M09 - M08 - TS-II - APS2
TC2 - MII - MIO - MI4 - M08 - TS-9 - APS3
TC2 - MII - MIO - L10-PP/TS - APS4
TC2 - MII - MIO - M09 - TS-12 - APS5
TC2 - MII - MIO - M09 - TS-13 - APS6

PROPOSED STREETLIGHT CABLE SCHEMATIC



PROPOSED STREETLIGHT CABLE ROUTING

- P02 - MII - L12-PP/TS
- P02 - MII - MIO - L10-PP/TS
- P02 - MII - MIO - M09 - M08 - LII-PP/TS

PROPOSED STREETLIGHT CABLE LEGEND

——— — NO. 8 STRANDED BARE COPPER GROUND WIRE
——— — NO. 2 STRANDED BARE COPPER GROUND WIRE
——— — TWO NO. 10 STRANDED CABLES
---------- THREE NO. 6 STRANDED CABLES
------- THREE NO. 4/0 STRANDED CABLES
• SPLICE POINT

SEQUENCE OF OPERATION DRAWING NO. TS-118-1D, ACISA NO. 4201

SG- 08

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE
AND L'ENFANT SQ SE
CABLE ROUTING SCHEMATIC

FINAL

FIELD CHECKED BY: SO
DESIGNED BY: SO
DRAWN BY: RH III
REVIEWED BY: AYY
DATE: 09/18
SCALE: 1" = 20'
SHEET 2 OF 4
DRAWING NO. S-2461

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

S.L.F. NO. _____
APPROVED BY _____ _____ DATE

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9/21/18

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Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	120	197

STATION SCHEDULE		
STATION	STATUS	DESCRIPTION
TC2	PROPOSED	TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET
M08	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (3'x3'x3')
M09	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (4'x4'x4')
M10	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (4'x4'x4')
M11	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (4'x4'x4')
TS-9	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-10	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-11	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-12	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-13	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
L10-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH STEEL TRANSFORMER BASE AND DECORATIVE ARM WITH TEARDROP LUMINAIRE
L11-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH LUMINAIRE, A STEEL TRANSFORMER BASE, AND AN 8-FOOT MAST ARM WITH CAP AND CLAMP
L12-PP/TS	PROPOSED	28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH LUMINAIRE, A STEEL TRANSFORMER BASE, AND AN 8-FOOT MAST ARM WITH CAP AND CLAMP
*P02	EXISTING	PEPCO ELECTRICAL MANHOLE

CONDUIT SUMMARY				
LOCATION TO LOCATION	STATUS	SIZE (DIA.) (IN)	NUMBER OF CONDUITS	QUANTITY (FT)
*P02 - M11	PROPOSED	2	1	28
TC2 - M11	PROPOSED	2,4	1,2	9
M11 - L12-PP/TS	PROPOSED	2,4	1,1	10
M11 - M10	PROPOSED	4	4	63
M10 - M09	PROPOSED	4	4	85
M09 - M08	PROPOSED	4	4	69
M10 - L10-PP/TS	PROPOSED	2,4	1,1	39
M09 - TS-10	PROPOSED	2,4	1,1	13
M09 - TS-13	PROPOSED	2,4	1,1	16
M09 - TS-12	PROPOSED	2,4	1,1	50
M08 - TS-9	PROPOSED	2,4	1,1	47
M08 - L11-PP/TS	PROPOSED	2,4	1,1	18
M08 - TS-11	PROPOSED	2,4	1,1	19

STREETLIGHT CABLE SUMMARY							
SCHEDULE			QUANTITY				
			CABLE			GROUNDING	
FROM STA.	TO STA.	DISTANCE	4/0	#6	#10	#2	#8
*P02	M11	28	114			38	
M11	M10	63		219			73
M10	M09	85		285			95
M09	M08	66		228			76
M10	L10-PP/TS	39			98		49
M08	L11-PP/TS	18			56		28
M08	L12-PP/TS	10			40		20
	TOTAL		114	732	194	38	341

STREETLIGHT POLE INFORMATION (POLE INSTALLATION)							
DRAWING LIGHT NO.	MARYLAND GRID PLAT	GRID NO.	LOCATION	TYPE OF POLE	LIGHT SOURCE	LAMP WATTS	DATE IN SERVICE
L10-PP/TS			SW COR. OF PENNSYLVANIA AVENUE S.E. AND L'ENFANT SQUARE S.E.	PEND POST	LED	150W	
L11-PP/TS			NW COR. OF PENNSYLVANIA AVENUE S.E. AND L'ENFANT SQUARE S.E.	PEND POST	LED	150W	
L12-PP/TS			SE COR. OF PENNSYLVANIA AVENUE S.E. AND L'ENFANT SQUARE S.E.	PEND POST	LED	150W	

STREETLIGHT POLE INFORMATION (POLE REMOVAL)							
DRAWING LIGHT NO.	MARYLAND GRID PLAT	GRID NO.	LOCATION	TYPE OF POLE	LIGHT SOURCE	LAMP WATTS	DATE REMOVED FROM SERVICE
R8-PP/TS			NE COR. OF PENNSYLVANIA AVENUE S.E. AND L'ENFANT SQUARE S.E.	PEND POST	HPS	400W	
R9-PP/TS			SW COR. OF PENNSYLVANIA AVENUE S.E. AND L'ENFANT SQUARE S.E.	PEND POST	HPS	400W	
R10-PP/TS			NW COR. OF PENNSYLVANIA AVENUE S.E. AND L'ENFANT SQUARE S.E.	PEND POST	HPS	400W	

SG- 09

SEQUENCE OF OPERATION DRAWING NO. TS-118-1D, ACISA NO. 4201

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE
AND L'ENFANT SQ SE
SCHEDULE AND QUANTITIES

FINAL

FIELD CHECKED BY: SO
DESIGNED BY: SO
DRAWN BY: RH III
REVIEWED BY: AYY
DATE: 0918
SCALE: 1" = 20'
SHEET 3 OF 4
DRAWING NO. S-2461

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

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S.I.F. NO. _____
APPROVED BY _____ DATE

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Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	121	197

UTILITY NOTES:

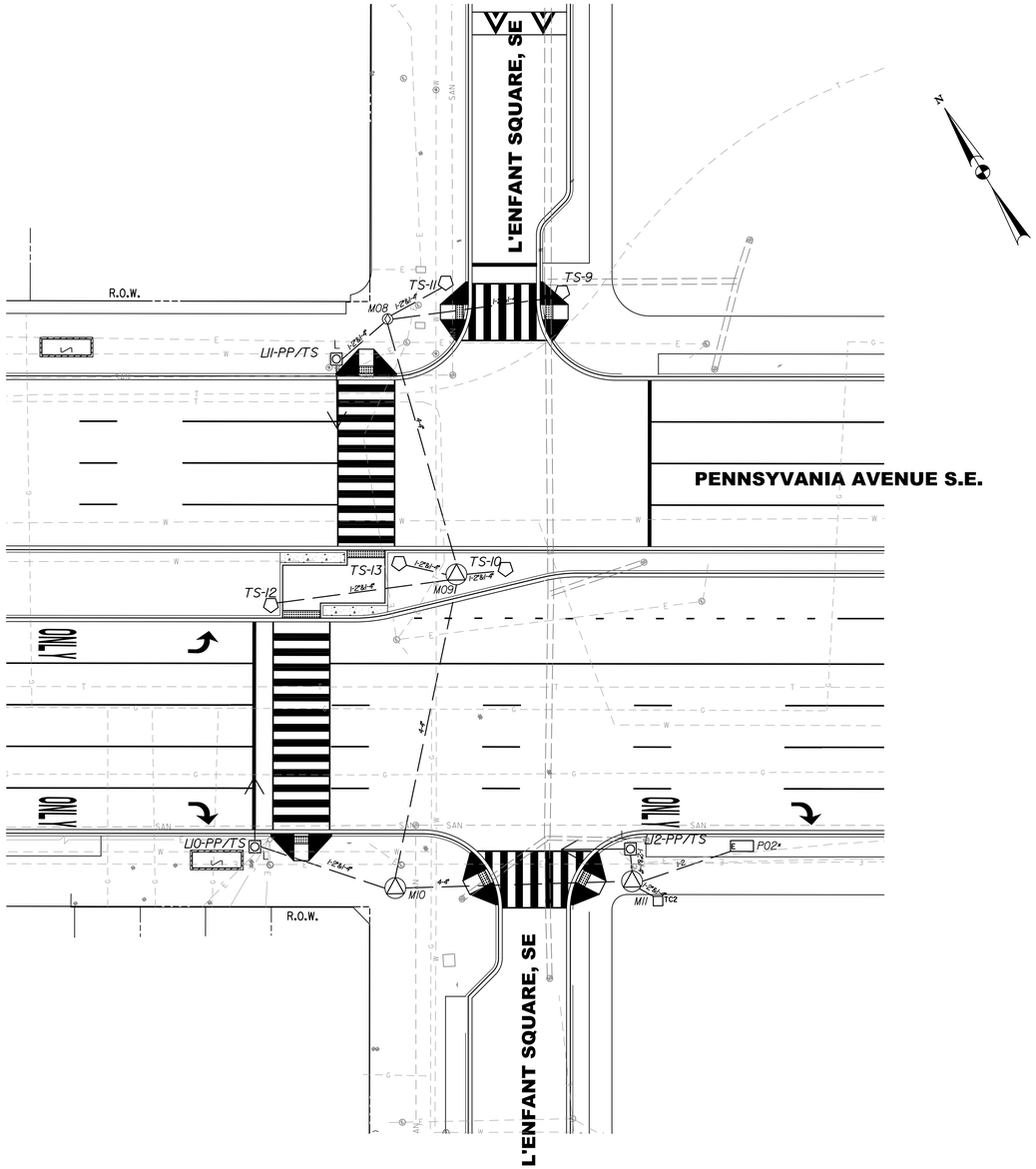
1. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE BASED ON FIELD SURVEY DATA AND/OR RECORD DRAWINGS. THE LOCATION OF UTILITIES SHOWN IS APPROXIMATE AND THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UTILITIES WELL IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS WHICH COULD DAMAGE THESE FACILITIES. IN AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES. IF A UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER OF SAID UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW THE GROUND SHALL BE REPAIRED BY OR UNDER THE DIRECTION OF THE OWNER AT CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCES 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. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO EXCAVATING.

4. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 2 FOOT HORIZONTAL CLEARANCE TO ALL UTILITIES DURING CONSTRUCTION.

5. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PROPOSED CONDUITS.



LEGEND:

TEC	PROPOSED TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION CABINET
TC	PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET AND AN EXTERNAL UNINTERRUPTED POWER SUPPLY SYSTEM
L	PROPOSED 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE
	PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
	PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
	PROPOSED ADA COMPLIANT WHEELCHAIR RAMP
	TRAFFIC SIGN
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
W	EXISTING WATER MANHOLE
	EXISTING WATER METER
WV	PROPOSED WATER VALVE
	PROPOSED CATCH BASIN(S)
SD	PROPOSED STORM DRAINAGE MANHOLE
S	EXISTING SANITARY SEWER MANHOLE
CS	EXISTING COMBINED SEWER MANHOLE
	EXISTING GAS VALVE
	EXISTING GAS METER
T T	EXISTING TELEPHONE MANHOLE
	PROPOSED DDOT MANHOLE (4'X4'X4')
	PROPOSED DDOT MANHOLE (3'X3'X3')
	PROPOSED HAND BOX
E E	EXISTING PEPCO ELECTRICAL MANHOLE
	EXISTING PEPCO TAPHOLE
	PROPOSED LOCATION FOR PEPCO POWER CONNECTION
	EXISTING TREE
	PROPOSED TREE
E	PROPOSED DDOT ELECTRICAL PVC CONDUIT
R.O.W.	RIGHT OF WAY LINE
SAN	EXISTING COMBINED SEWER LINE (FROM SURVEY, <24")
W	EXISTING WATER LINE (FROM RECORD)
T	EXISTING TELEPHONE LINE (FROM RECORD)
G	EXISTING GAS LINE (FROM RECORD)
E	EXISTING PEPCO ELECTRICAL LINE (FROM RECORD)

SG- 10

SEQUENCE OF OPERATION DRAWING NO. TS–118–1D, ACISA NO. 4201

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE SE
AND L'ENFANT SQ SE
UTILITY PLAN

FINAL

FIELD CHECKED BY: SO
DESIGNED BY: SO
DRAWN BY: RH III
REVIEWED BY: AYY
DATE: 09/18
SCALE: 1" = 20'
SHEET 4 OF 4
DRAWING NO. S–2461

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

GRAPHIC SCALE
20 10 0 20 40
1" = 20' HORIZ.

S.L.F. NO. _____
APPROVED BY _____ DATE _____

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Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	122	197

GENERAL NOTES:

A. ALL WORK RELATING TO THE INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH APPROPRIATE PROVISIONS OF THE LATEST VERSIONS OF DDOT STANDARD DRAWINGS, STANDARD SPECIFICATIONS AND THE CONTRACT SPECIAL PROVISIONS.
B. THE CONTRACTOR SHALL SUBMIT TO DDOT CATALOG CUTS OF ALL EQUIPMENT AND MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.
C. THE LOCATION OF PROPOSED EQUIPMENT SHOWN IS APPROXIMATE. THE LOCATION OF ALL PROPOSED EQUIPMENT AND MATERIALS SHALL BE FIELD LOCATED, VERIFIED, AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
D. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PROPOSED CONDUITS, MANHOLES, POLE FOUNDATIONS, AND CABINET FOUNDATION.
E. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRAFFIC AND PEDESTRIAN SIGNAL HEADS, STEEL TRAFFIC SIGNAL POLES, STEEL TRANSFORMER BASES, TRAFFIC SIGNAL CONTROLLER, CABINET, AND ALL MOUNTING HARDWARE.
F. THE CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO DDOT TRAFFIC SIGNAL SHOP. CONTACT MR. RANDOLPH COOPER 72 HOURS IN ADVANCE AT (202) 905-6059 TO ARRANGE SERVICE.
G. NO ABOVE GROUND HARDWARE OR EQUIPMENT SHALL BE LOCATED SUCH THAT A 4 FEET CLEAR PATH IS NOT AVAILABLE FOR ADA PURPOSES.
H. DDOT PERSONNEL WILL TERMINATE COMMUNICATION CABLES IN THE TERMINATION CABINET.
I. THE CONTRACTOR MUST COORDINATE ANY INSTALLATION OF CCTV EQUIPMENT AND CABLE WITH DDOT.
J. DDOT MUST BE NOTIFIED 36 HOURS PRIOR TO ANY INSTALLATION OF COMMUNICATION CABLE.
K. CONTRACTOR SHALL VERIFY UTILITY CONFLICTS NEAR POLE LOCATIONS. TS-17 MAY REQIRE SADDLE FOUNDATION DUE TO UTILITY CONFLICT.

INSTALLATION NOTES:

A. INSTALL TRAFFIC SIGNAL CONTROLLER CABINET FOUNDATION.
B. INSTALL TRAFFIC SIGNAL CONTROLLER CABINET.
C. INSTALL TRAFFIC SIGNAL CONTROLLER.
D. INSTALL 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE.
E. INSTALL 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE.
F. INSTALL 8-FOOT MAST ARM WITH CAP AND CLAMP.
G. INSTALL 15-FOOT MAST ARM WITH CAP AND CLAMP.
H. INSTALL LED TRAFFIC SIGNAL HEAD(S).
I. INSTALL LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD(S).
J. INSTALL APS UNIT.
K. INSTALL VIDEO DETECTION CAMERA.
L. INSTALL TRAFFIC SIGN(S).

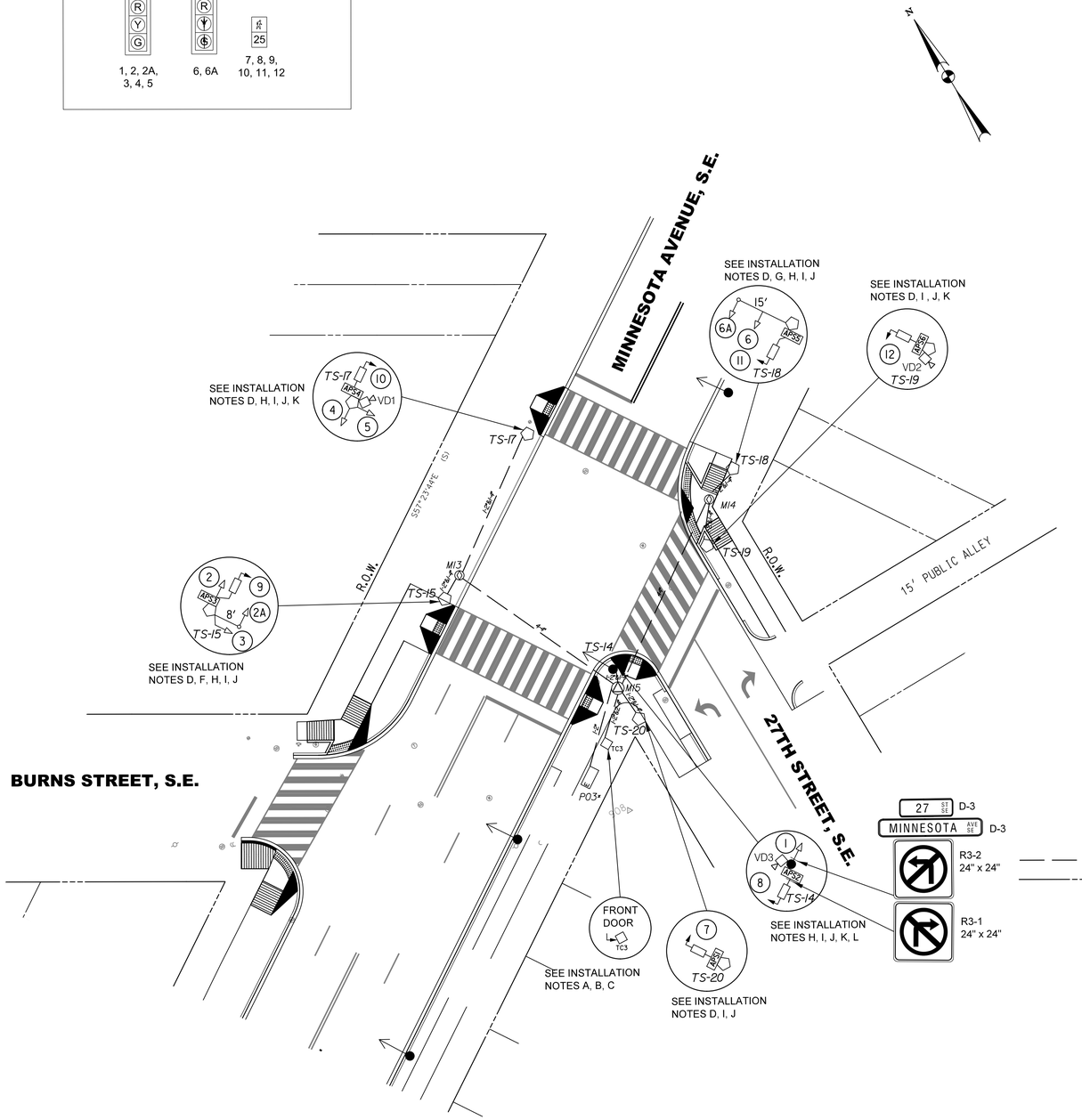
MAST ARM NOTES:

A. A BACK PLATE SHALL BE AFFIXED TO EACH MAST ARM MOUNTED SIGNAL HEAD.
B. THE BOTTOM OF MAST ARM MOUNTED SIGNAL HEADS SHALL BE 16 FEET ABOVE THE ROADWAY SURFACE.
C. AN ASTRO-BRAC OR APPROVED EQUIVALENT SHALL BE USED TO MOUNT SIGNAL HEADS (2A AND 6A) TO MAST ARMS.

CABLE NOTES:

A. DDOT PERSONNEL WILL MAKE ALL ELECTRICAL CONNECTIONS INSIDE THE CONTROLLER CABINET. THE CONTRACTOR SHALL MAKE ALL ELECTRICAL CONNECTIONS IN TRAFFIC AND PEDESTRIAN SIGNAL HEADS.
B. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW, UNSPLICED 7C 14AWG STRANDED CABLE TO ALL SIGNAL HEADS. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW, UNSPLICED 4C 18AWG STRANDED CABLES TO ALL LOOP DETECTORS AND APS UNITS. A SEGMENT OF 4C 18AWG SHIELDED, STRANDED CABLE SHALL EXTEND FROM EACH POLE MOUNTED APS UNIT TO THE 2-SECTION PEDESTRIAN SIGNAL HEAD MOUNTED ON THE SAME POLE.
C. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 12 STRAND FIBER OPTIC COMMUNICATION CABLES.

PROPOSED TRAFFIC AND PEDESTRIAN SIGNAL HEAD DISPLAY



LEGEND:

- PROPOSED TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION CABINET (TEC)
- PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET AND AN EXTERNAL UNINTERRUPTED POWER SUPPLY SYSTEM (TC)
- PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
- EXISTING PEPCO WOOD POLE
- EXISTING LUMINAIRE AND SUPPOR ARM INDICATING DIRECTION OF LIGHT
- PROPOSED 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- PROPOSED 2-SECTION LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD
- PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS)
- PROPOSED X-FOOT MAST ARM WITH CAP AND CLAMP (X')
- PROPOSED VIDEO DETECTION CAMERA
- PROPOSED ADA COMPLIANT WHEELCHAIR RAMP
- TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER MANHOLE (W)
- EXISTING WATER METER
- PROPOSED WATER VALVE (WV)
- PROPOSED CATCH BASIN(S)
- PROPOSED STORM DRAINAGE MANHOLE (SD)
- EXISTING SANITARY SEWER MANHOLE (SS)
- EXISTING COMBINED SEWER MANHOLE (CS)
- EXISTING GAS VALVE
- EXISTING GAS METER
- EXISTING TELEPHONE MANHOLE (T)
- PROPOSED DDOT MANHOLE (4'X4'X4')
- PROPOSED DDOT MANHOLE (3'X3'X3')
- PROPOSED HAND BOX
- EXISTING PEPCO ELECTRICAL MANHOLE (E)
- EXISTING PEPCO TAPHOLE
- PROPOSED LOCATION FOR PEPCO POWER CONNECTION
- EXISTING TREE
- PROPOSED TREE
- PROPOSED DDOT ELECTRICAL PVC CONDUIT
- RIGHT OF WAY LINE (R.O.W.)

GRAPHIC SCALE
20 10 0 20 40
1" = 20' HORIZ.

DISTRICT OF COLUMBIA • MELANIE R. ADLESTON-ROBICK • 905849 • REGISTERED • PROFESSIONAL ENGINEER
9/24/18

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S.L.F. NO.
APPROVED BY ____ DATE

SEQUENCE OF OPERATION DRAWING NO. TS–1924, ACISA NO. 4294

SG- 11

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

27TH ST SE
AND MINNESOTA AVE SE
TRAFFIC SIGNAL MODIFICATION

SUBMITTED BY ____ PROJECT ENGINEER ____ DATE
RECOMMENDED ____ PROJECT MANAGER ____ DATE
____ ITS SYSTEMS SUPPORT MANAGER ____ DATE
APPROVED ____ PROGRAM MANAGER ____ DATE

	FINAL
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	0918
SCALE	1" = 20'
SHEET / OF	1 / 3
DRAWING NO.	S–1397–B

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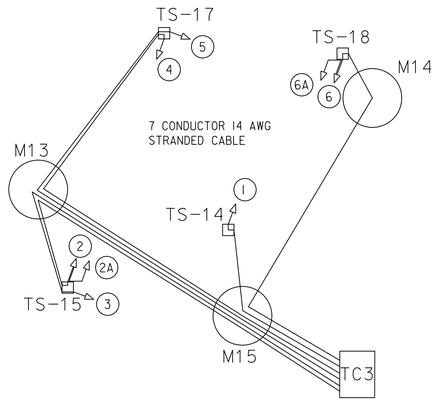
Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	123	197

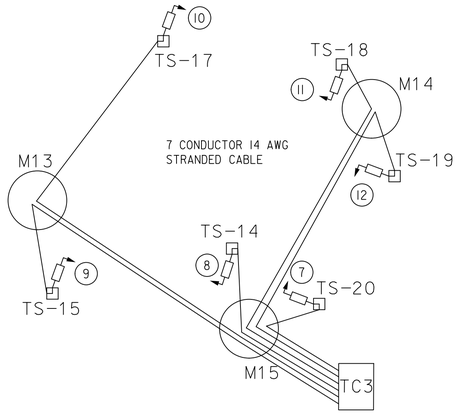
PROPOSED TRAFFIC SIGNAL HEAD CABLE SCHEMATIC



PROPOSED TRAFFIC SIGNAL HEAD CABLE ROUTING

TC3 - MI5 - TS-14 - 1
TC3 - MI5 - MI3 - TS-15 - 2
2 - 2A
TC3 - MI5 - MI3 - TS-15 - 3
TC3 - MI5 - MI3 - TS-17 - 4
TC3 - MI5 - MI3 - TS-17 - 5
TC3 - MI5 - MI4 - TS-18 - 6
6 - 6A

PROPOSED PEDESTRIAN SIGNAL HEAD CABLE SCHEMATIC



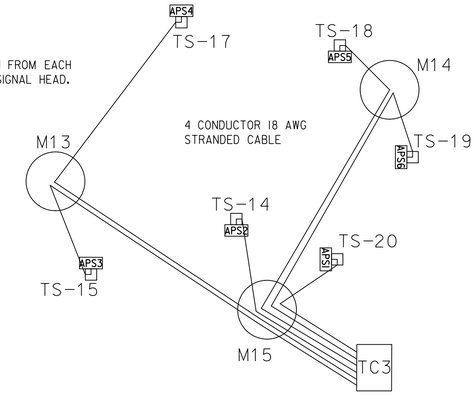
NOTES:

1. USE ONE - 4 CONDUCTOR CONNECTION FROM EACH APS TO THE ASSOCIATED PEDESTRAIN SIGNAL HEAD.

PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL HEAD CABLE ROUTING

TC3 - MI5 - TS-20 - 7
TC3 - MI5 - TS-14 - 8
TC3 - MI5 - MI3 - TS-15 - 9
TC3 - MI5 - MI3 - TS-17 - 10
TC3 - MI5 - MI4 - TS-18 - 11
TC3 - MI5 - MI4 - TS-19 - 12

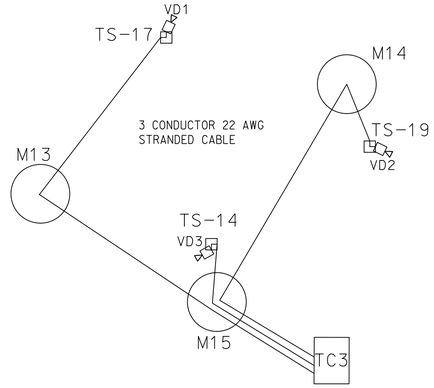
PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) CABLE SCHEMATIC



PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS) CABLE ROUTING

TC3 - MI5 - TS-20 - APS1
TC3 - MI5 - TS-14 - APS2
TC3 - MI5 - MI3 - TS-15 - APS3
TC3 - MI5 - MI3 - TS-17 - APS4
TC3 - MI5 - MI4 - TS-18 - APS5
TC3 - MI5 - MI4 - TS-19 - APS6

PROPOSED VIDEO DETECTION CABLE SCHEMATIC



PROPOSED VIDEO DETECTION CABLE ROUTING

TC3 - MI5 - MI3 - TS-17 - VD1
TC3 - MI5 - MI4 - TS-19 - VD2
TC3 - MI5 - TS-14 - VD3

STATION SCHEDULE		
STATION	STATUS	DESCRIPTION
TC3	PROPOSED	TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET
MI3	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (3'x3'x3')
MI4	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (3'x3'x3')
MI5	PROPOSED	DDOT TRAFFIC SIGNAL MANHOLE (4'x4'x4')
TS-14	PROPOSED	EXISTING PEPCO WOOD POLE
TS-15	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE AND AN 8-FOOT MAST ARM WITH CAP AND CLAMP
TS-17	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-18	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE AND AN 15-FOOT MAST ARM WITH CAP AND CLAMP
TS-19	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
TS-20	PROPOSED	20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
*P03	EXISTING	PEPCO ELECTRICAL MANHOLE

CONDUIT SUMMARY				
LOCATION TO LOCATION	STATUS	SIZE (DIA.) (IN)	NUMBER OF CONDUITS	QUANTITY (FT)
*P03 - MI5	PROPOSED	2	1	40
TC3 - MI5	PROPOSED	2,4	1,2	15
MI5 - TS-20	PROPOSED	2,4	1,1	11
MI5 - TS-14	PROPOSED	2,4	1,1	6
MI5 - MI4	PROPOSED	4	4	63
MI5 - MI3	PROPOSED	4	4	58
MI4 - TS-18	PROPOSED	2,4	1,1	12
MI4 - TS-19	PROPOSED	2,4	1,1	14
MI3 - TS-15	PROPOSED	2,4	1,1	9
MI3 - TS-17	PROPOSED	2,4	1,1	47

SEQUENCE OF OPERATION DRAWING NO. TS-1924, ACISA NO. 4294

SG- 12

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

27TH ST SE
AND MINNESOTA AVE SE
CABLE ROUTING SCHEMATIC

FINAL

FIELD CHECKED BY: SO
DESIGNED BY: SO
DRAWN BY: RH III
REVIEWED BY: AYY
DATE: 0918
SCALE: 1" = 20'
SHEET 2 OF 3
DRAWING NO. S-1397-B

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION PE905849 4/11/18 REGISTERED PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
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Development Consultants
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S.L.F. NO. _____
APPROVED BY _____ DATE

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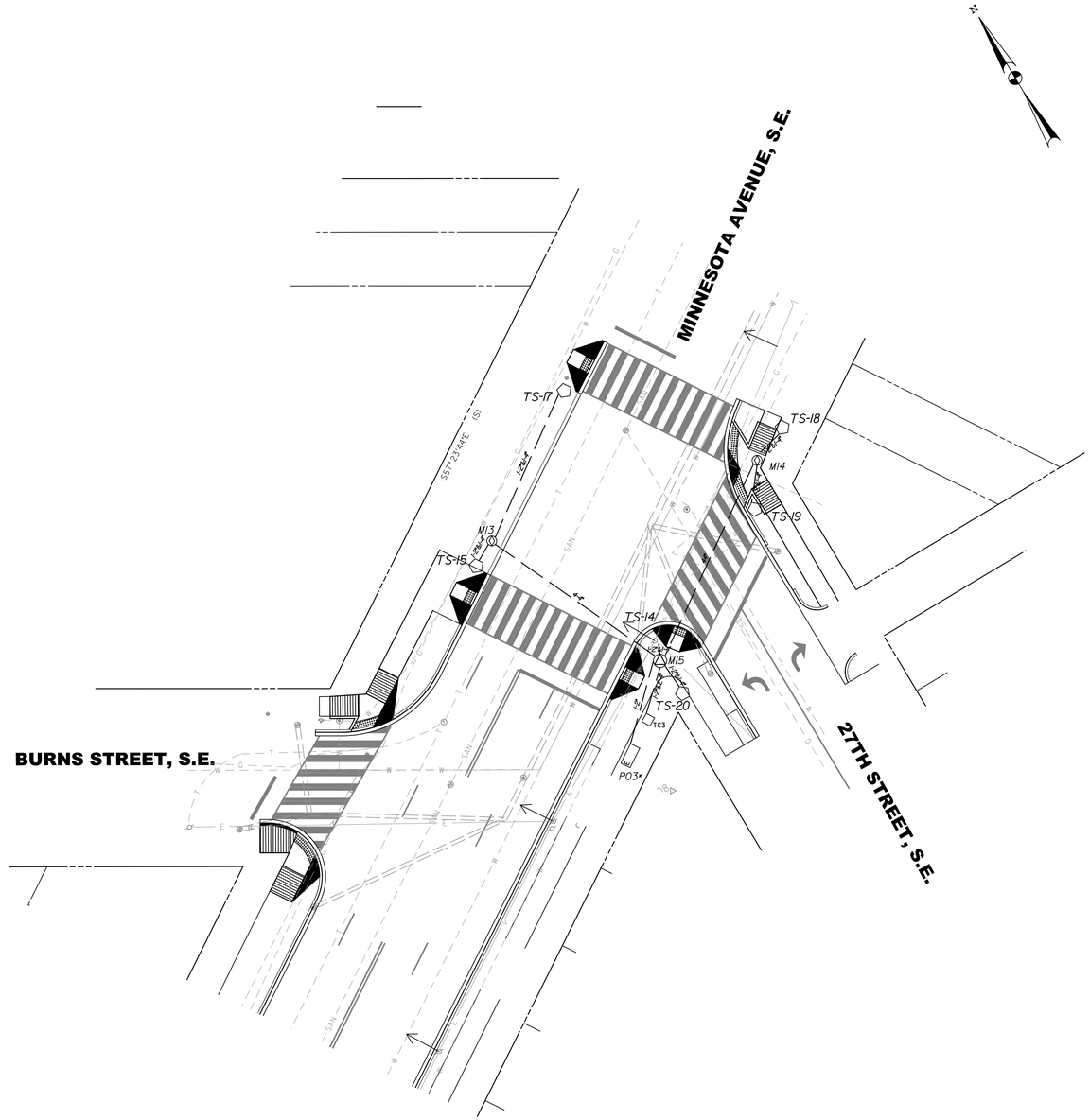
Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	124	197

UTILITY NOTES:

1. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE BASED ON FIELD SURVEY DATA AND/OR RECORD DRAWINGS. THE LOCATION OF UTILITIES SHOWN IS APPROXIMATE AND THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE. 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 AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES. IF A UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER OF SAID UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW THE GROUND SHALL BE REPAIRED BY OR UNDER THE DIRECTION OF THE OWNER AT CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCES 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. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO EXCAVATING.
4. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 2 FOOT HORIZONTAL CLEARANCE TO ALL UTILITIES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PROPOSED CONDUITS.



LEGEND:

- TEC — PROPOSED TRAFFIC SIGNAL COMMUNICATION CABLE TERMINATION CABINET
- TC — PROPOSED TYPE 170E TRAFFIC SIGNAL CONTROLLER WITH A MODEL 336SS CABINET AND AN EXTERNAL UNINTERRUPTED POWER SUPPLY SYSTEM
- L — PROPOSED 28-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE
- PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- PROPOSED ADA COMPLIANT WHEELCHAIR RAMP
- TRAFFIC SIGN
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER MANHOLE
- EXISTING WATER METER
- WV — PROPOSED WATER VALVE
- PROPOSED CATCH BASIN(S)
- SD — PROPOSED STORM DRAINAGE MANHOLE
- SS — EXISTING SANITARY SEWER MANHOLE
- CS — EXISTING COMBINED SEWER MANHOLE
- EXISTING GAS VALVE
- EXISTING GAS METER
- T — EXISTING TELEPHONE MANHOLE
- PROPOSED DDOT MANHOLE (4'X4'X4')
- PROPOSED DDOT MANHOLE (3'X3'X3')
- PROPOSED HAND BOX
- E — EXISTING PEPCO ELECTRICAL MANHOLE
- EXISTING PEPCO TAPHOLE
- PROPOSED LOCATION FOR PEPCO POWER CONNECTION
- EXISTING TREE
- PROPOSED TREE
- E — PROPOSED DDOT ELECTRICAL PVC CONDUIT
- R.O.W. — RIGHT OF WAY LINE
- SAN — EXISTING COMBINED SEWER LINE (FROM SURVEY, <24")
- W — EXISTING WATER LINE (FROM RECORD)
- T — EXISTING TELEPHONE LINE (FROM RECORD)
- G — EXISTING GAS LINE (FROM RECORD)
- E — EXISTING PEPCO ELECTRICAL LINE (FROM RECORD)

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GRAPHIC SCALE
20 10 0 20 40
1" = 20' HORIZ.

S.L.F. NO.

APPROVED BY _____ DATE

SEQUENCE OF OPERATION DRAWING NO. TS-1924, ACISA NO. 4294

SG-13

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

27TH ST SE
AND MINNESOTA AVE SE
UTLITIY PLAN

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

FINAL	
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	0918
SCALE	1" = 20'
SHEET / OF	4 / 4
DRAWING NO.	S-1397-B

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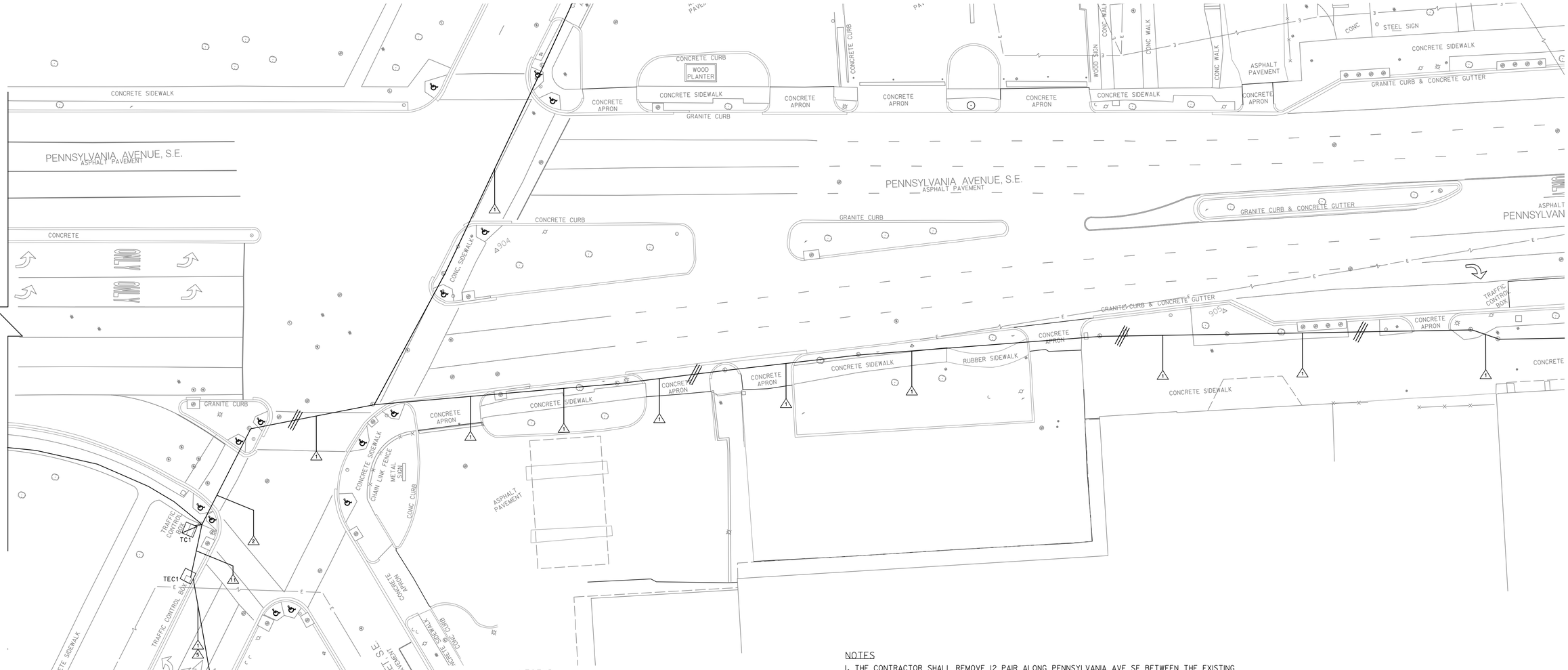
Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	125	197

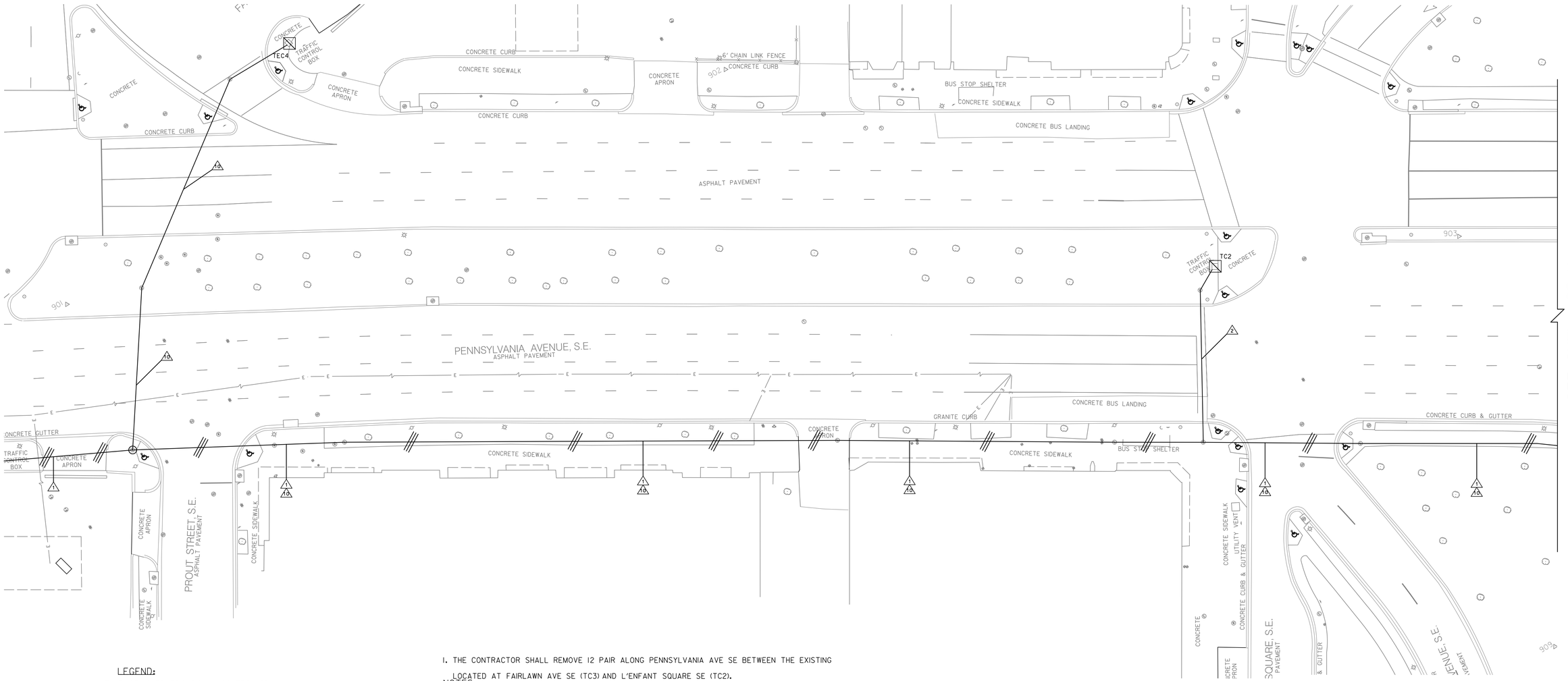
EXISTING COMMUNICATION PLAN - I


MATCHLINE A-A, SEE SHEET SG-12
PENNSYLVANIA AVENUE, S.E.
ASPHALT PAVEMENT
CONCRETE SIDEWALK
CONCRETE CURB
WOOD PLANTER
CONCRETE APRON
GRANITE CURB
CONCRETE CURB & GUTTER
GRANITE CURB & CONCRETE GUTTER
CONC. SIDEWALK
CONCRETE
RUBBER SIDEWALK
CONC WALL
CONC WALK
WOOD SIGN
STEEL SIGN
ASPHALT PAVEMENT
TRAFFIC CONTROL BOX
TC1
TEC1
TEC2
TRAFFIC CONTROL BOX
CONCRETE SIDEWALK
CHAIN LINK FENCE
METAL SIGN
CONC CURB
ASPHALT PAVEMENT
CONCRETE APRON
CONCRETE SIDEWALK
4 STREET S.E.
THE BIKE SHACK STATION
CONCRETE GUTTER
CONCRETE SIDEWALK
CONC CURB
CONCRETE APRON
CONCRETE SIDEWALK
CONCRETE APRON
CONCRETE SIDEWALK
CONCRETE APRON
CONCRETE SIDEWALK

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	126	197

EXISTING COMMUNICATION PLAN - 2



LEGEND:

- TC EXISTING TRAFFIC SIGNAL CONTROLLER
- TEC EXISTING COMMUNICATION CABLE TERMINATION BOX
- E EXISTING PEPCO MANHOLE
- EXISTING UNDERGROUND COMMUNICATION TO BE REMOVED
- 1 I-12 PAIR COMMUNICATION CABLE
- 5 I-50 PAIR COMMUNICATION CABLE
- 10 I-100 PAIR COMMUNICATION CABLE
- 2 2-12 PAIR COMMUNICATION CABLE
- 11 2-100 PAIR COMMUNICATION CABLE

NOTES

1. THE CONTRACTOR SHALL REMOVE 12 PAIR ALONG PENNSYLVANIA AVE SE BETWEEN THE EXISTING LOCATED AT FAIRLAWN AVE SE (TC3) AND L'ENFANT SQUARE SE (TC2).
2. THE CONTRACTOR SHALL REMOVE EXISTING 12 PAIR ALONG PENNSYLVANIA AVE SE BETWEEN THE EXISTING CONTROLLER LOCATED AT L'ENFANT SQUARE SE (TC2) AND MINNESOTA AVE SE (TC1).
3. THE CONTRACTOR SHALL REMOVE EXISTING 12 PAIR ALONG PENNSYLVANIA AVE SE BETWEEN THE EXISTING CONTROLLERS AT MINNESOTA AVE SE (TC1) AND 27TH ST NW (TC4).
4. THE CONTRACTOR SHALL REMOVE EXISTING 100 PAIR ALONG PENNSYLVANIA AVE SE BETWEEN THE EXISTING CONTROLLERS LOCATED BETWEEN TEC 2 AND TEC 1.

DISTRICT OF COLUMBIA DELAWARE ADVISORY BOARD PE905849 REGISTERED PROFESSIONAL ENGINEER 9/21/18

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GRAPHIC SCALE

20 10 0 20 40

1" = 20' HORIZ.

S.L.F. NO.

APPROVED BY _____ DATE

SG-15

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE S.E.,
AND L'ENFANT SQ SE
EXISTING COMMUNICATION PLAN

FINAL	
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	09/18
SCALE	1" = 20'
SHEET / OF	2 / 2
DRAWING NO.	

SUBMITTED BY _____ DATE
PROJECT ENGINEER

RECOMMENDED _____ DATE
PROJECT MANAGER

_____ DATE
ITS SYSTEMS SUPPORT MANAGER

APPROVED _____ DATE
PROGRAM MANAGER

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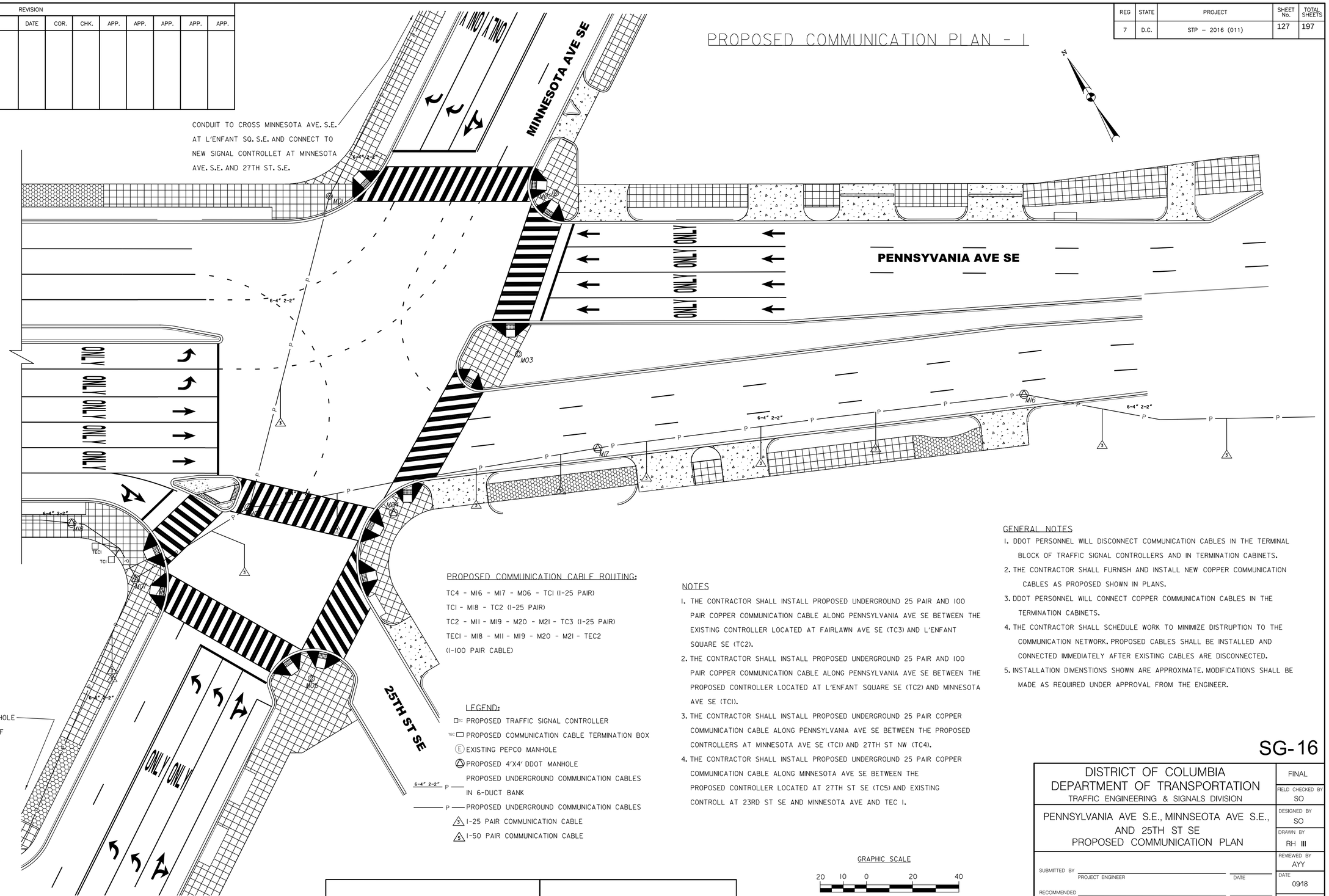
Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	127	197

PROPOSED COMMUNICATION PLAN - I



PROPOSED COMMUNICATION CABLE ROUTING:

TC4 - MI6 - MI7 - M06 - TCI (I-25 PAIR)

TCI - MI8 - TC2 (I-25 PAIR)

TC2 - MII - MI9 - M20 - M2I - TC3 (I-25 PAIR)

TECI - MI8 - MII - MI9 - M20 - M2I - TEC2

(I-100 PAIR CABLE)

LEGEND:

- TC PROPOSED TRAFFIC SIGNAL CONTROLLER
- TEC PROPOSED COMMUNICATION CABLE TERMINATION BOX
- (E) EXISTING PEPCO MANHOLE
- PROPOSED 4'X4' DDOT MANHOLE
- 6-4" 2-2" P PROPOSED UNDERGROUND COMMUNICATION CABLES IN 6-DUCT BANK
- P PROPOSED UNDERGROUND COMMUNICATION CABLES
- (3) I-25 PAIR COMMUNICATION CABLE
- (5) I-50 PAIR COMMUNICATION CABLE

NOTES

1. THE CONTRACTOR SHALL INSTALL PROPOSED UNDERGROUND 25 PAIR AND 100 PAIR COPPER COMMUNICATION CABLE ALONG PENNSYLVANIA AVE SE BETWEEN THE EXISTING CONTROLLER LOCATED AT FAIRLAWN AVE SE (TC3) AND L'ENFANT SQUARE SE (TC2).
2. THE CONTRACTOR SHALL INSTALL PROPOSED UNDERGROUND 25 PAIR AND 100 PAIR COPPER COMMUNICATION CABLE ALONG PENNSYLVANIA AVE SE BETWEEN THE PROPOSED CONTROLLER LOCATED AT L'ENFANT SQUARE SE (TC2) AND MINNESOTA AVE SE (TCI).
3. THE CONTRACTOR SHALL INSTALL PROPOSED UNDERGROUND 25 PAIR COPPER COMMUNICATION CABLE ALONG PENNSYLVANIA AVE SE BETWEEN THE PROPOSED CONTROLLERS AT MINNESOTA AVE SE (TCI) AND 27TH ST NW (TC4).
4. THE CONTRACTOR SHALL INSTALL PROPOSED UNDERGROUND 25 PAIR COPPER COMMUNICATION CABLE ALONG MINNESOTA AVE SE BETWEEN THE PROPOSED CONTROLLER LOCATED AT 27TH ST SE (TC5) AND EXISTING CONTROLL AT 23RD ST SE AND MINNESOTA AVE AND TEC 1.

GENERAL NOTES

1. DDOT PERSONNEL WILL DISCONNECT COMMUNICATION CABLES IN THE TERMINAL BLOCK OF TRAFFIC SIGNAL CONTROLLERS AND IN TERMINATION CABINETS.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW COPPER COMMUNICATION CABLES AS PROPOSED SHOWN IN PLANS.
3. DDOT PERSONNEL WILL CONNECT COPPER COMMUNICATION CABLES IN THE TERMINATION CABINETS.
4. THE CONTRACTOR SHALL SCHEDULE WORK TO MINIMIZE DISTRUPTION TO THE COMMUNICATION NETWORK. PROPOSED CABLES SHALL BE INSTALLED AND CONNECTED IMMEDIATELY AFTER EXISTING CABLES ARE DISCONNECTED.
5. INSTALLATION DIMENSTIONS SHOWN ARE APPROXIMATE. MODIFICATIONS SHALL BE MADE AS REQUIRED UNDER APPROVAL FROM THE ENGINEER.

GRAPHIC SCALE

20 10 0 20 40

1" = 20' HORIZ.

DISTRICT OF COLUMBIA — DEPARTMENT OF TRANSPORTATION — TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE S.E., MINNSEOTA AVE S.E., AND 25TH ST SE
PROPOSED COMMUNICATION PLAN

SG-16

	FINAL
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	09/18
SCALE	1" = 20'
SHEET / OF	1 / 2
DRAWING NO.	

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE

RECOMMENDED _____ PROJECT MANAGER _____ DATE

_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE

APPROVED _____ PROGRAM MANAGER _____ DATE

S.L.F. NO.

APPROVED BY _____ DATE

DISTRICT OF COLUMBIA — ALLAN V. BRICK — PE905849 — 9/24/18 — REGISTERED PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
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PHONE: (301) 927-1900 FAX: (301) 927-2800
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PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

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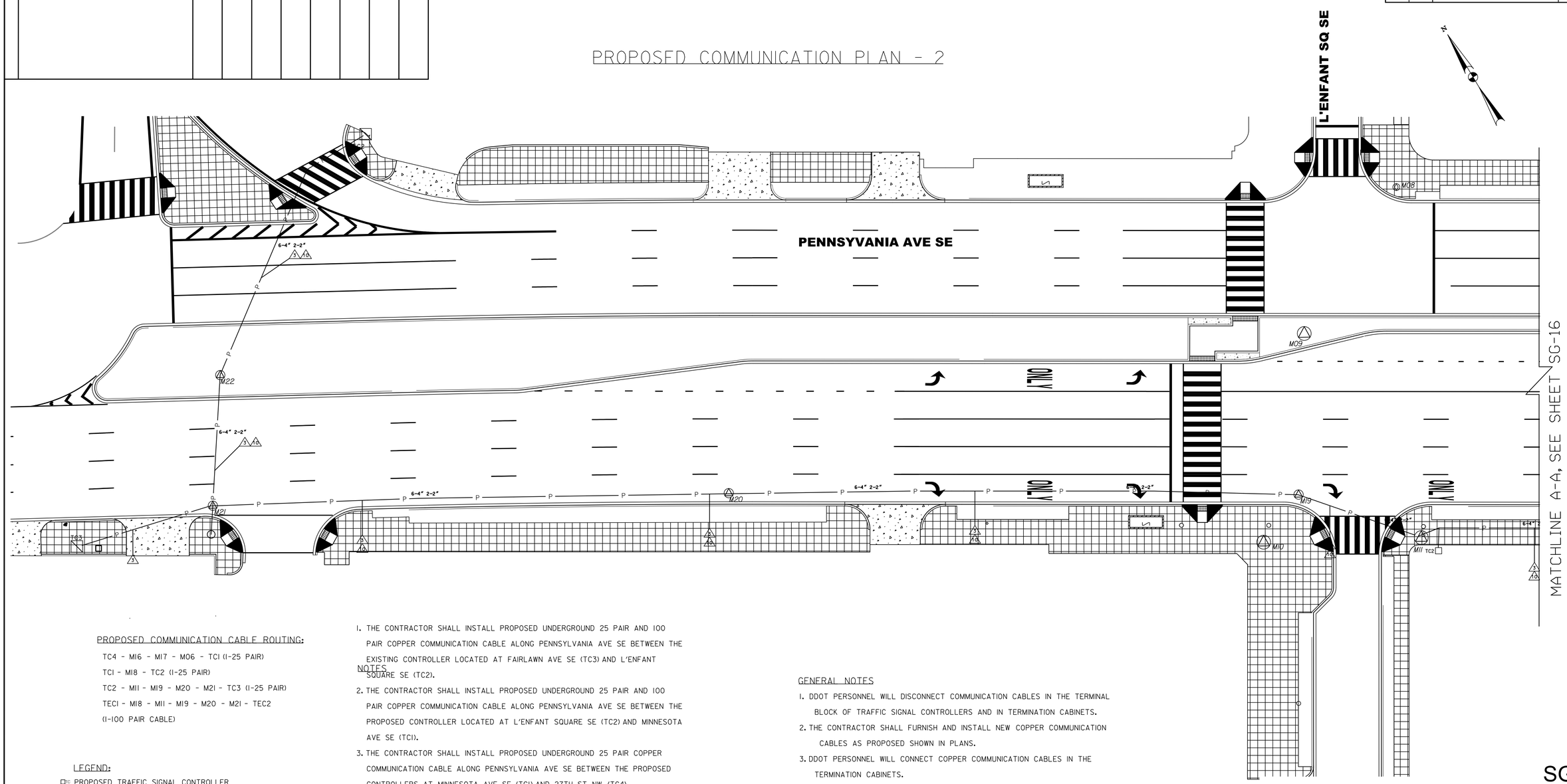
Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	128	197

PROPOSED COMMUNICATION PLAN - 2



PROPOSED COMMUNICATION CABLE ROUTING:

TC4 - MI6 - MI7 - M06 - TCI (I-25 PAIR)

TCI - MI8 - TC2 (I-25 PAIR)

TC2 - MII - MI9 - M20 - M2I - TC3 (I-25 PAIR)

TECI - MI8 - MII - MI9 - M20 - M2I - TEC2

(I-I00 PAIR CABLE)

LEGEND:

- TC — PROPOSED TRAFFIC SIGNAL CONTROLLER
- TEC — PROPOSED COMMUNICATION CABLE TERMINATION BOX
- TC — EXISTING TRAFFIC SIGNAL CONTROLLER
- TEC — EXISTING COMMUNICATION CABLE TERMINATION BOX
- E — EXISTING PEPCO MANHOLE
- 6-4" 2-2" P — PROPOSED UNDERGROUND COMMUNICATION CABLES IN 6-DUCT BANK
- P — PROPOSED UNDERGROUND COMMUNICATION CABLES
- 3 — I-25 PAIR COMMUNICATION CABLE
- 10 — I-I00 PAIR COMMUNICATION CABLE

NOTES

1. THE CONTRACTOR SHALL INSTALL PROPOSED UNDERGROUND 25 PAIR AND I00 PAIR COPPER COMMUNICATION CABLE ALONG PENNSYLVANIA AVE SE BETWEEN THE EXISTING CONTROLLER LOCATED AT FAIRLAWN AVE SE (TC3) AND L'ENFANT SQUARE SE (TC2).
2. THE CONTRACTOR SHALL INSTALL PROPOSED UNDERGROUND 25 PAIR AND I00 PAIR COPPER COMMUNICATION CABLE ALONG PENNSYLVANIA AVE SE BETWEEN THE PROPOSED CONTROLLER LOCATED AT L'ENFANT SQUARE SE (TC2) AND MINNESOTA AVE SE (TCI).
3. THE CONTRACTOR SHALL INSTALL PROPOSED UNDERGROUND 25 PAIR COPPER COMMUNICATION CABLE ALONG PENNSYLVANIA AVE SE BETWEEN THE PROPOSED CONTROLLERS AT MINNESOTA AVE SE (TCI) AND 27TH ST NW (TC4).
4. THE CONTRACTOR SHALL INSTALL PROPOSED UNDERGROUND 25 PAIR COPPER COMMUNICATION CABLE ALONG MINNESOTA AVE SE BETWEEN THE PROPOSED CONTROLLER LOCATED AT 27TH ST SE (TC5) AND EXISTING CONTROLL AT 23RD ST SE AND MINNESOTA AVE AND TEC I.

GENERAL NOTES

1. DDOT PERSONNEL WILL DISCONNECT COMMUNICATION CABLES IN THE TERMINAL BLOCK OF TRAFFIC SIGNAL CONTROLLERS AND IN TERMINATION CABINETS.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW COPPER COMMUNICATION CABLES AS PROPOSED SHOWN IN PLANS.
3. DDOT PERSONNEL WILL CONNECT COPPER COMMUNICATION CABLES IN THE TERMINATION CABINETS.
4. THE CONTRACTOR SHALL SCHEDULE WORK TO MINIMIZE DISTRUPTION TO THE COMMUNICATION NETWORK. PROPOSED CABLES SHALL BE INSTALLED AND CONNECTED IMMEDIATELY AFTER EXISTING CABLES ARE DISCONNECTED.
5. INSTALLATION DIMENSTIONS SHOWN ARE APPROXIMATE. MODIFICATIONS SHALL BE MADE AS REQUIRED UNDER APPROVAL FROM THE ENGINEER.

DISTRICT OF COLUMBIA REGISTERED PROFESSIONAL ENGINEER — MICHAEL ADEMISO KILLU BRICK — PE905849 — 9/24/18

GRAPHIC SCALE

20 10 0 20 40

1" = 20' HORIZ.

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PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

S.L.F. NO.

APPROVED BY _____ DATE

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE S.E.,
AND L'ENFANT SQ SE
PROPOSED COMMUNICATION PLAN

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE

RECOMMENDED _____ PROJECT MANAGER _____ DATE

_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE

APPROVED _____ PROGRAM MANAGER _____ DATE

	FINAL
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	0918
SCALE	1" = 20'
SHEET / OF	2 / 2
DRAWING NO.	SG-17

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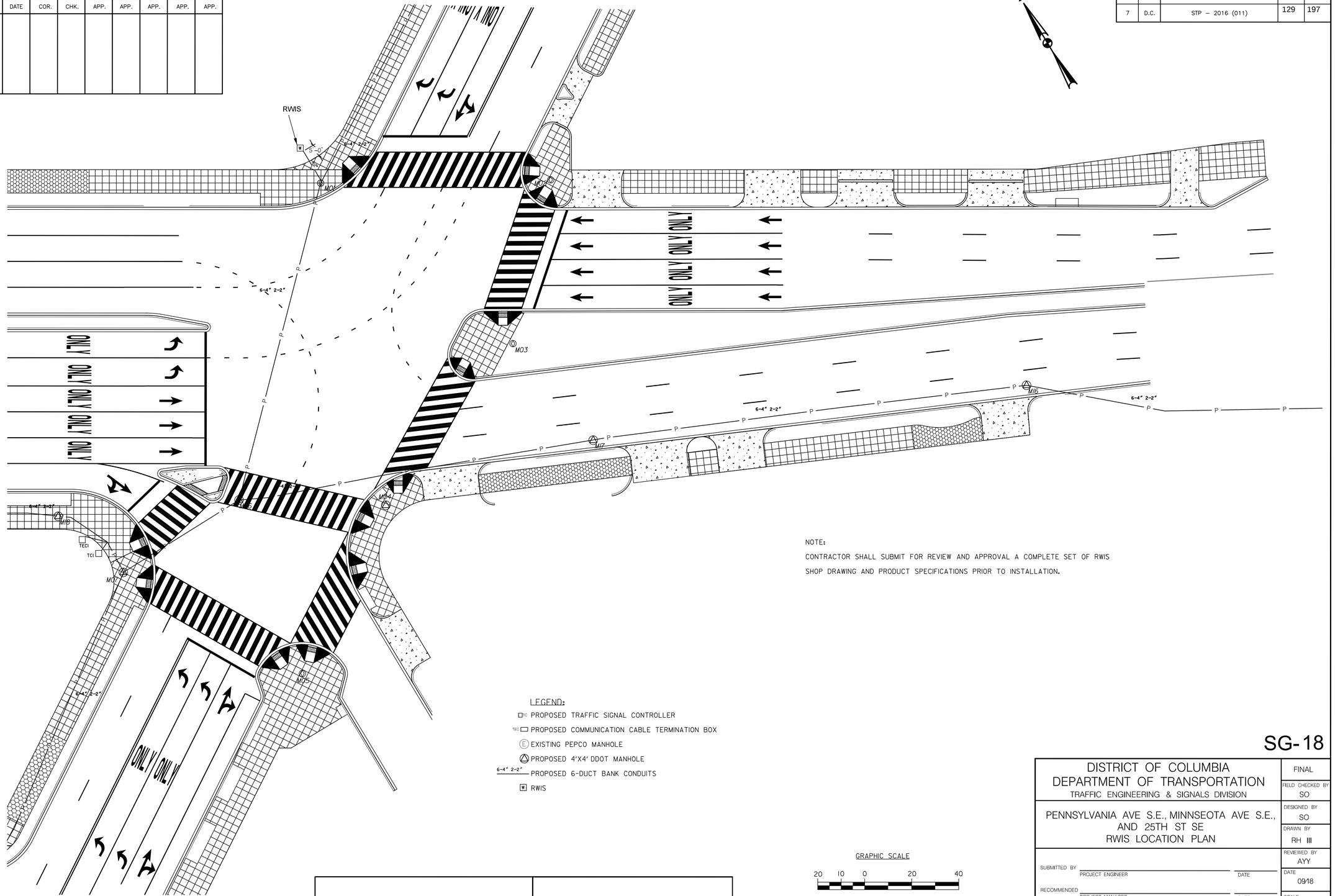
Monday, September 24, 2018 AT 05:05 PM

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET No.	TOTAL SHEETS
7	D.C.	STP – 2016 (011)	129	197



NOTE:

CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SET OF RWIS SHOP DRAWING AND PRODUCT SPECIFICATIONS PRIOR TO INSTALLATION.

LEGEND:

- TC PROPOSED TRAFFIC SIGNAL CONTROLLER
- TEC PROPOSED COMMUNICATION CABLE TERMINATION BOX
- (E) EXISTING PEPCO MANHOLE
- PROPOSED 4'X4' DDOT MANHOLE
- 6-4" 2-2" PROPOSED 6-DUCT BANK CONDUITS
- W RWIS

SG-18

GRAPHIC SCALE

20 10 0 20 40

1" = 20' HORIZ.

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

PENNSYLVANIA AVE S.E., MINNSEOTA AVE S.E., AND 25TH ST SE
RWIS LOCATION PLAN

FINAL	
FIELD CHECKED BY	SO
DESIGNED BY	SO
DRAWN BY	RH III
REVIEWED BY	AYY
DATE	09/18
SCALE	1" = 20'
SHEET	1 OF 2
DRAWING NO.	

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE

RECOMMENDED _____ PROJECT MANAGER _____ DATE

APPROVED _____ ITS SYSTEMS SUPPORT MANAGER _____ DATE

_____ PROGRAM MANAGER _____ DATE

S.L.F. NO.

APPROVED BY _____ DATE

DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION — PE905849 REGISTERED PROFESSIONAL ENGINEER — 9/21/18

SHELADIA ASSOCIATES, INC.
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Monday, September 24, 2018 AT 05:05 PM

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	130	197

GENERAL ABBREVIATION LIST:

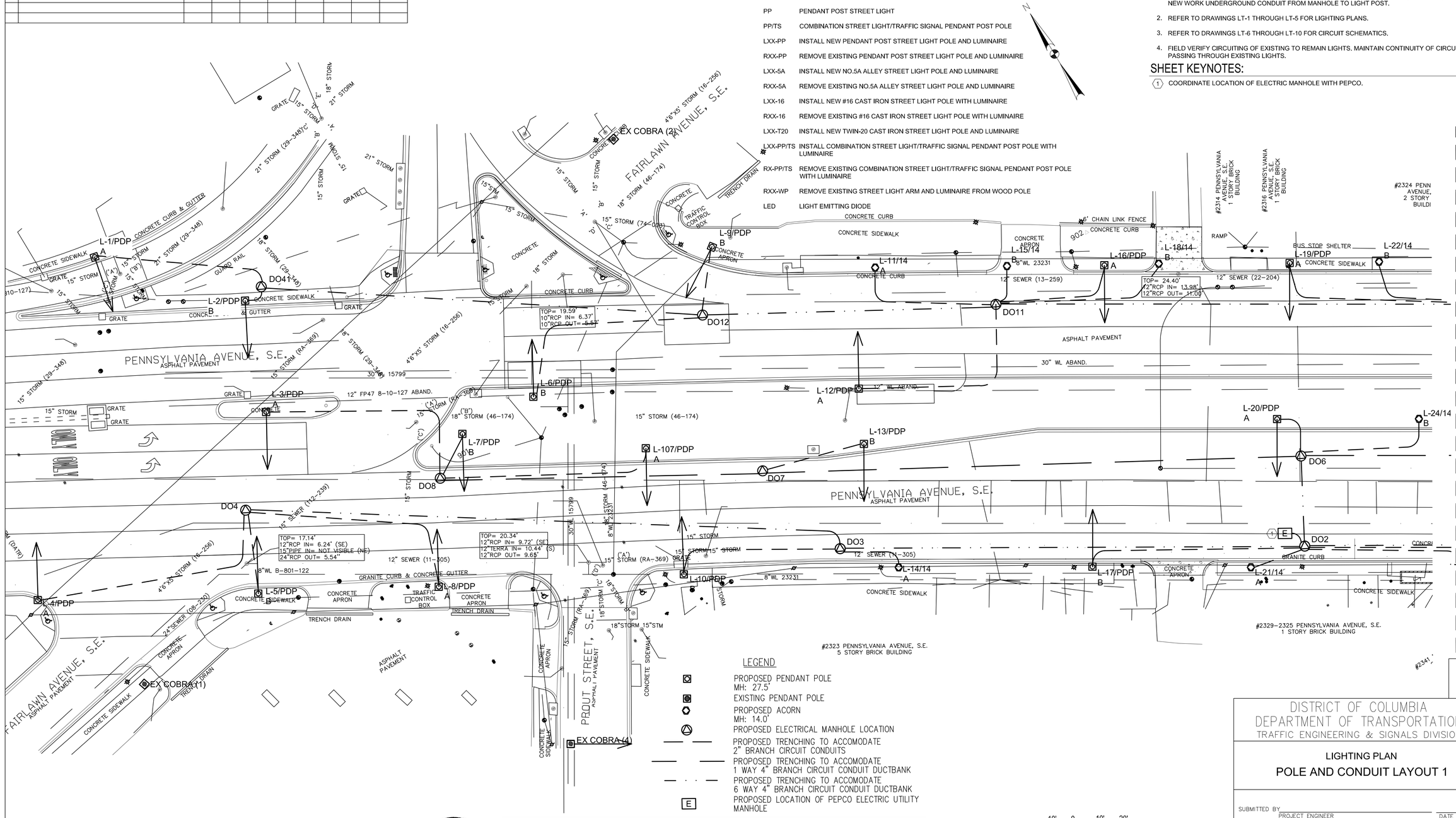
#16	#16CAST IRON STREET LIGHT POLE
M.H.	MOUNTING HEIGHT
T20	TWIN-20 CAST IRON STREET LIGHT POLE
5A	NO.5A ALLEY STREET LIGHT POLE
P#	PEPCO FEED POINT
PP	PENDANT POST STREET LIGHT
PP/TS	COMBINATION STREET LIGHT/TRAFFIC SIGNAL PENDANT POST POLE
LXX-PP	INSTALL NEW PENDANT POST STREET LIGHT POLE AND LUMINAIRE
RXX-PP	REMOVE EXISTING PENDANT POST STREET LIGHT POLE AND LUMINAIRE
LXX-5A	INSTALL NEW NO.5A ALLEY STREET LIGHT POLE AND LUMINAIRE
RXX-5A	REMOVE EXISTING NO.5A ALLEY STREET LIGHT POLE AND LUMINAIRE
LXX-16	INSTALL NEW #16 CAST IRON STREET LIGHT POLE WITH LUMINAIRE
RXX-16	REMOVE EXISTING #16 CAST IRON STREET LIGHT POLE WITH LUMINAIRE
LXX-T20	INSTALL NEW TWIN-20 CAST IRON STREET LIGHT POLE AND LUMINAIRE
LXX-PP/TS	INSTALL COMBINATION STREET LIGHT/TRAFFIC SIGNAL PENDANT POST POLE WITH LUMINAIRE
RX-PP/TS	REMOVE EXISTING COMBINATION STREET LIGHT/TRAFFIC SIGNAL PENDANT POST POLE WITH LUMINAIRE
RXX-WP	REMOVE EXISTING STREET LIGHT ARM AND LUMINAIRE FROM WOOD POLE
LED	LIGHT EMITTING DIODE

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (—— · · ——) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
2. REFER TO DRAWINGS LT-1 THROUGH LT-5 FOR LIGHTING PLANS.
3. REFER TO DRAWINGS LT-6 THROUGH LT-10 FOR CIRCUIT SCHEMATICS.
4. FIELD VERIFY CIRCUITING OF EXISTING TO REMAIN LIGHTS. MAINTAIN CONTINUITY OF CIRCUITS PASSING THROUGH EXISTING LIGHTS.

SHEET KEYNOTES:

(1) COORDINATE LOCATION OF ELECTRIC MANHOLE WITH PEPCO.



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
- PROPOSED TRENCHING TO ACCOMODATE 1 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- PROPOSED TRENCHING TO ACCOMODATE 6 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- [E] PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

10' 0 10' 20'

SCALE: 1"= 20'-0"

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DISTRICT OF COLUMBIA JAMES E. GOOD No. PE908773 PROFESSIONAL ENGINEER ELECTRICAL

S.L.F. NO.

APPROVED BY DATE

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
POLE AND CONDUIT LAYOUT 1

SUBMITTED BY PROJECT ENGINEER DATE

RECOMMENDED PROJECT MANAGER DATE

ITS SYSTEMS SUPPORT MANAGER DATE

APPROVED PROGRAM MANAGER DATE

FIELD CHECKED BY

DESIGNED BY JEG

DRAWN BY VJS

REVIEWED BY JEG

DATE 09/19/2018

SCALE

SHEET OF

DRAWING NO. LT-1

$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	131	197

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (—— · ——) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
2. REFER TO DRAWINGS LT-1 THROUGH LT-5 FOR LIGHTING PLANS.
3. REFER TO DRAWINGS LT-6 THROUGH LT-10 FOR CIRCUIT SCHEMATICS.

SHEET KEYNOTES:

(1) COORDINATE LOCATION OF ELECTRIC MANHOLE WITH PEPCO.

(2) TRAFFIC SIGNAL CONTROL PANEL

L'ENFANT SQUARE, S.E.

PENNSYLVANIA AVENUE, S.E.

PARK LIGHTS BASED ON PARK DESIGN CONCEPT. ALL ASSUMED TO BE ACORN 75W MH=12.5'

MATCHLINE SEE SHEET LT-1

MATCHLINE SEE SHEET LT-2

MATCHLINE SEE SHEET LT-3

MATCHLINE SEE SHEET LT-4

MATCHLINE SEE SHEET LT-5

#1301 – 1305 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING

SYLVANIA S.E. BRICK NG

BUS STOP SHELTER

TE BUS LANDING

NO CABLE

LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
- PROPOSED TRENCHING TO ACCOMODATE 1 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- PROPOSED TRENCHING TO ACCOMODATE 6 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- [E] PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

$FILE$
$DATE$

DISTRICT OF COLUMBIA — JAMES E. GOOD — No. PE908773 — ELECTRICAL — PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC. — Engineers, Architects Development Consultants
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PHONE: (301) 927-1900 FAX: (301) 927-2800
www.tooledesign.com
PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

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

S.L.F. NO.

APPROVED BY _____ DATE

LT-2

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
POLE AND CONDUIT LAYOUT 2

FIELD CHECKED BY	
DESIGNED BY	JEG
DRAWN BY	VJS
REVIEWED BY	JEG
DATE	09/19/2018
SCALE	
SHEET	OF
DRAWING NO.	

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE

RECOMMENDED _____ PROJECT MANAGER _____ DATE

_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE

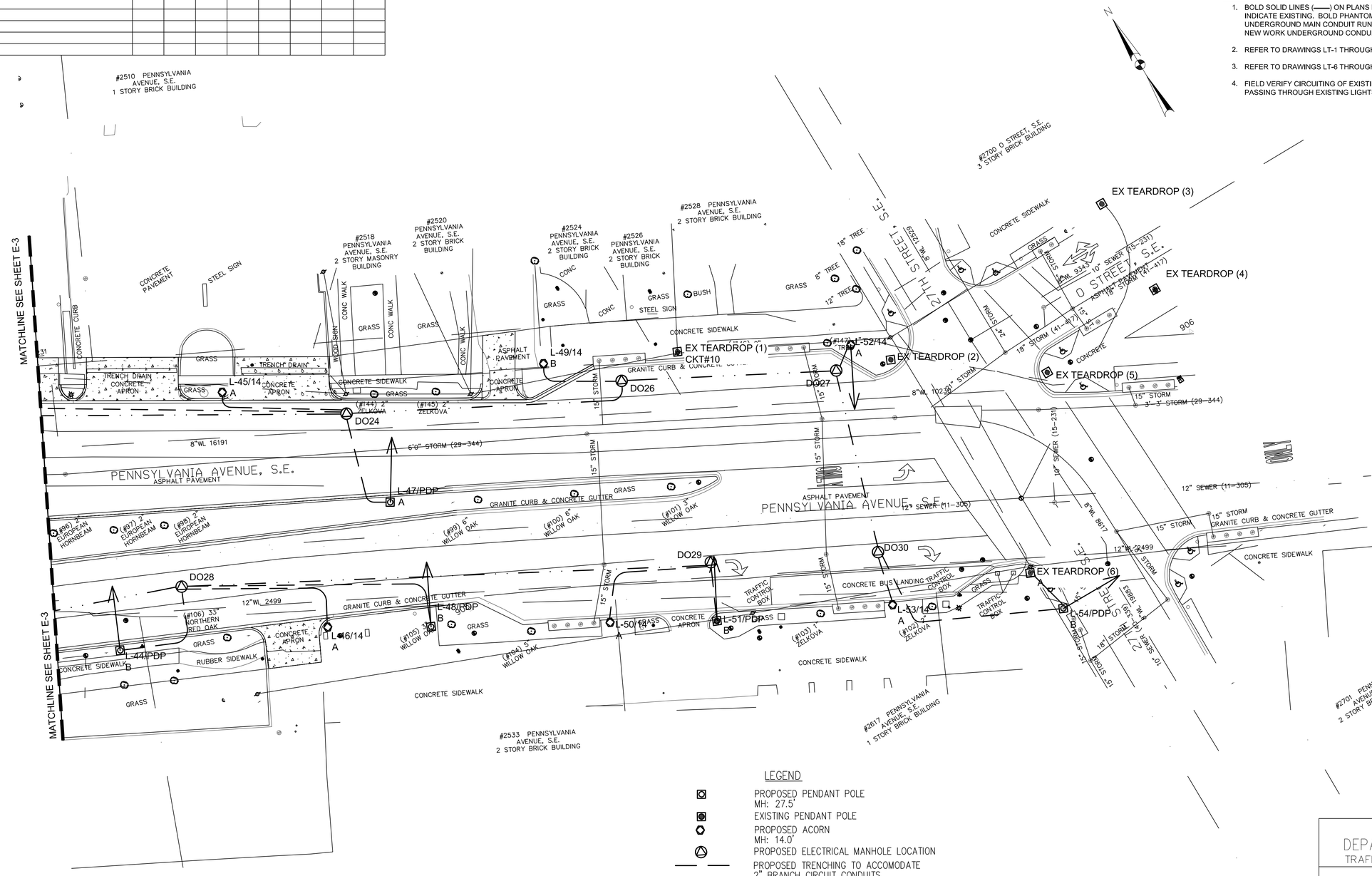
APPROVED _____ PROGRAM MANAGER _____ DATE

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	132	197

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (— · · —) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
2. REFER TO DRAWINGS LT-1 THROUGH LT-5 FOR LIGHTING PLANS.
3. REFER TO DRAWINGS LT-6 THROUGH LT-10 FOR CIRCUIT SCHEMATICS.
4. FIELD VERIFY CIRCUITING OF EXISTING TO REMAIN LIGHTS. MAINTAIN CONTINUITY OF CIRCUITS PASSING THROUGH EXISTING LIGHTS.



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
- PROPOSED TRENCHING TO ACCOMODATE 1 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- PROPOSED TRENCHING TO ACCOMODATE 6 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- [E] PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

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

LT-3

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
POLE AND CONDUIT LAYOUT 3

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET OF
DRAWING NO.

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

S.L.F. NO. _____
APPROVED BY _____ DATE

DISTRICT OF COLUMBIA JAMES E. GOOD No. PE908773 ELECTRICAL PROFESSIONAL ENGINEER

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$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	133	197

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (—— · · · ——) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
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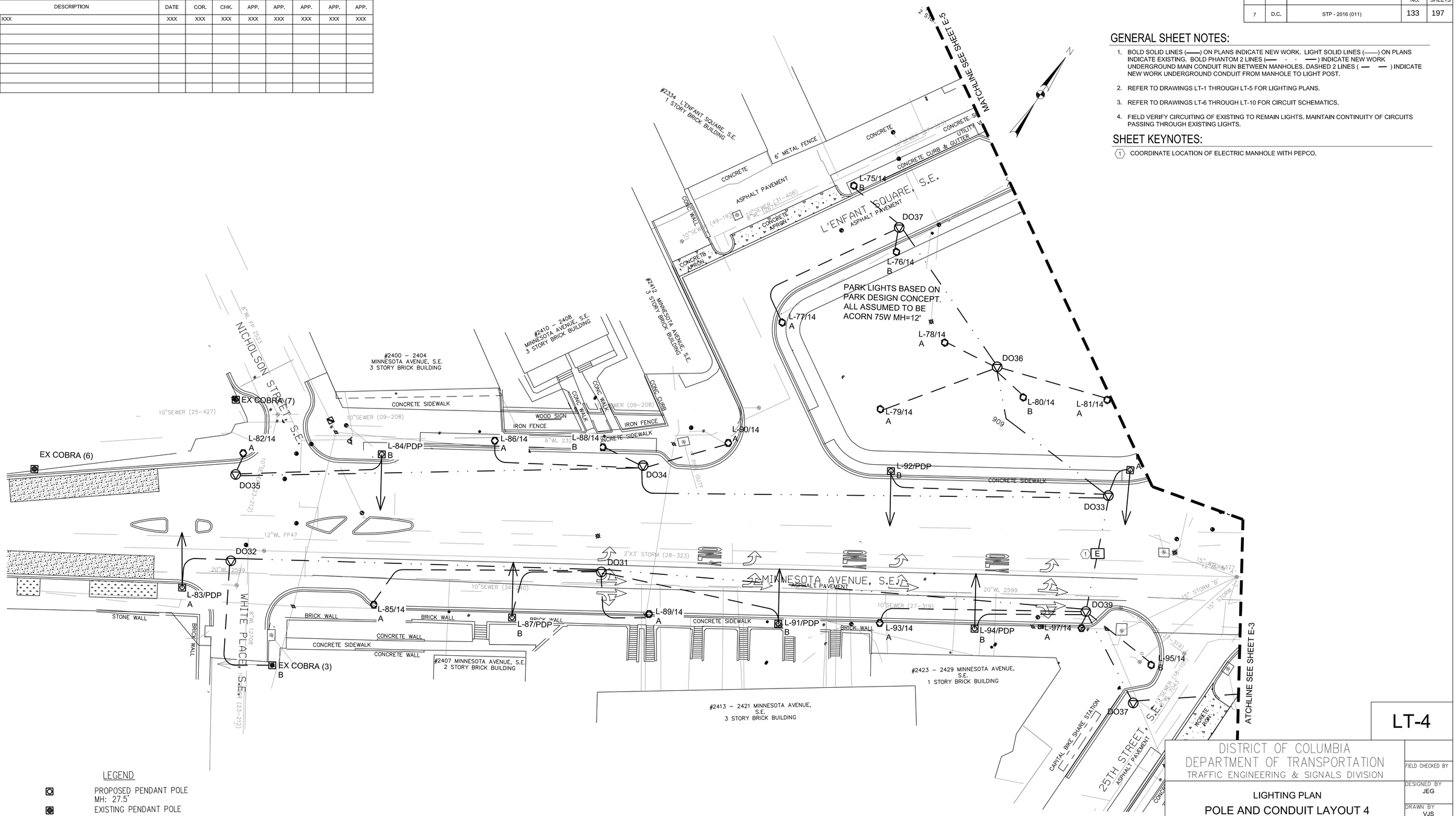
3. REFER TO DRAWINGS LT-6 THROUGH LT-10 FOR CIRCUIT SCHEMATICS.
4. FIELD VERIFY CIRCUITING OF EXISTING TO REMAIN LIGHTS. MAINTAIN CONTINUITY OF CIRCUITS PASSING THROUGH EXISTING LIGHTS.

SHEET KEYNOTES:

(1) COORDINATE LOCATION OF ELECTRIC MANHOLE WITH PEPCO.



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
- PROPOSED TRENCHING TO ACCOMODATE 1 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- PROPOSED TRENCHING TO ACCOMODATE 6 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- [E] PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

DISTRICT OF COLUMBIA JAMES E. GOOD No. PE908773 ELECTRICAL PROFESSIONAL ENGINEER

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PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

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

S.L.F. NO. _____

APPROVED BY _____ DATE _____

LT-4

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
POLE AND CONDUIT LAYOUT 4

FIELD CHECKED BY

DESIGNED BY JEG

DRAWN BY VJS

REVIEWED BY JEG

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE

DATE 09/19/2018

RECOMMENDED _____ PROJECT MANAGER _____ DATE

SCALE

_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE

SHEET OF

APPROVED _____ PROGRAM MANAGER _____ DATE

DRAWING NO.

$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

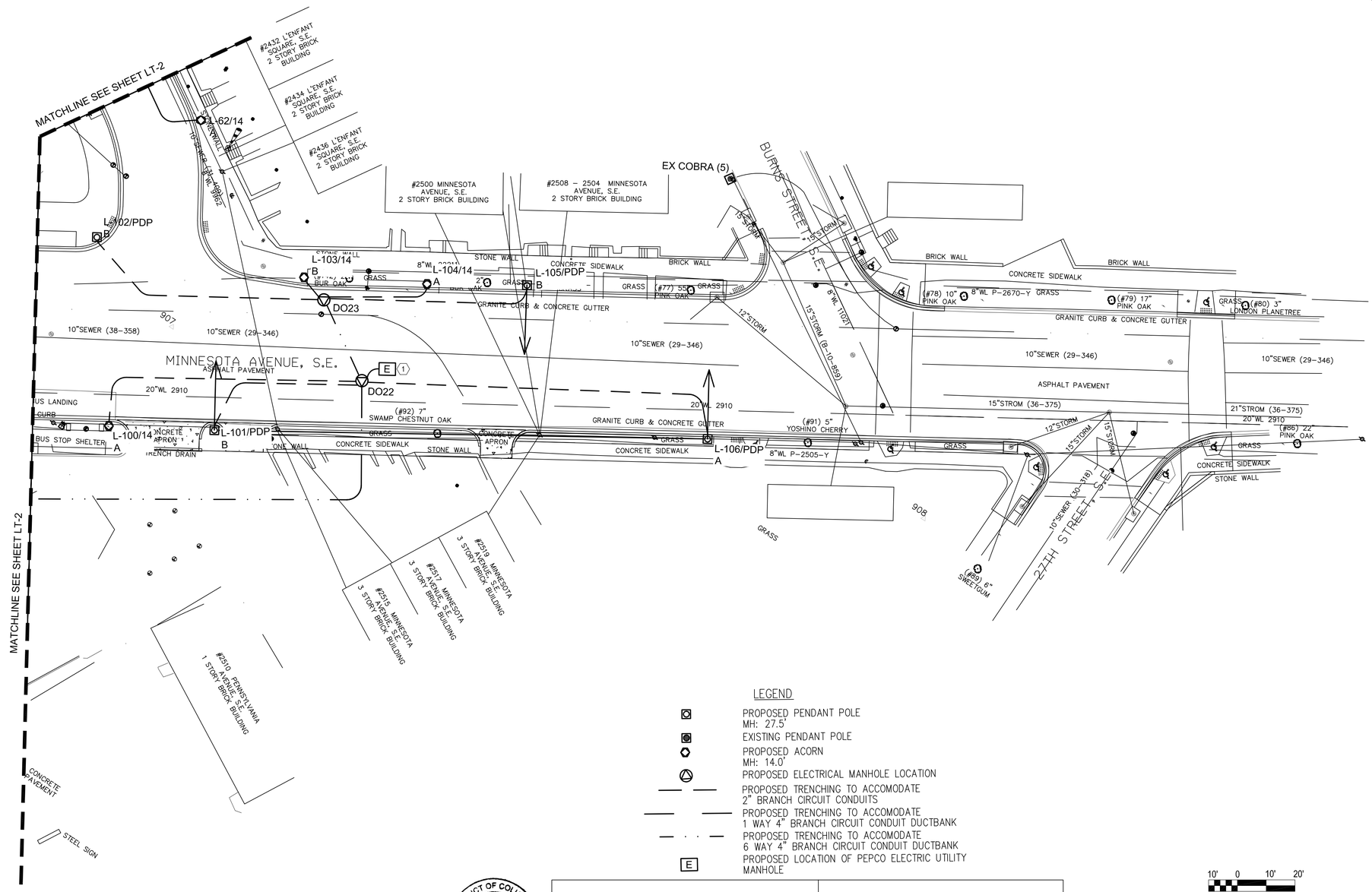
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	134	197

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (—— · · ——) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
2. REFER TO DRAWINGS LT-1 THROUGH LT-5 FOR LIGHTING PLANS.
3. REFER TO DRAWINGS LT-6 THROUGH LT-10 FOR CIRCUIT SCHEMATICS.
4. FIELD VERIFY CIRCUITING OF EXISTING TO REMAIN LIGHTS. MAINTAIN CONTINUITY OF CIRCUITS PASSING THROUGH EXISTING LIGHTS.

SHEET KEYNOTES:

(1) COORDINATE LOCATION OF ELECTRIC MANHOLE WITH PEPCO.



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
- PROPOSED TRENCHING TO ACCOMODATE 1 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- PROPOSED TRENCHING TO ACCOMODATE 6 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- [E] PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

10' 0 10' 20'

SCALE: 1"= 20'-0"

DISTRICT OF COLUMBIA JAMES E. GOOD No. PE908773 ELECTRICAL PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
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S.L.F. NO.

APPROVED BY DATE

LT-5

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN

POLE AND CONDUIT LAYOUT 5

SUBMITTED BY PROJECT ENGINEER DATE

RECOMMENDED PROJECT MANAGER DATE

ITS SYSTEMS SUPPORT MANAGER DATE

APPROVED PROGRAM MANAGER DATE

FIELD CHECKED BY	
DESIGNED BY	JEG
DRAWN BY	VJS
REVIEWED BY	JEG
DATE	09/19/2018
SCALE	
SHEET	OF
DRAWING NO.	

$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

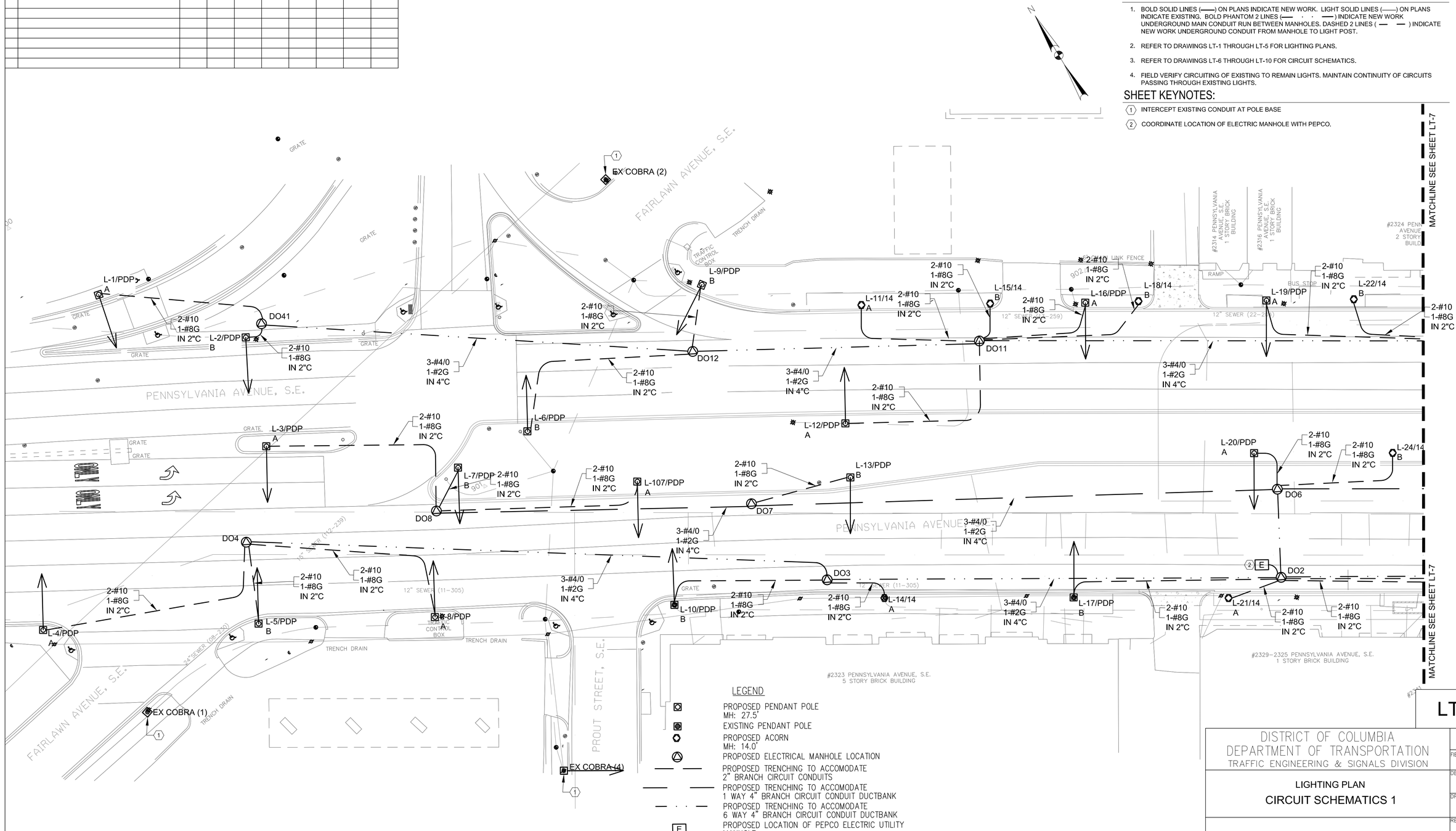
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	135	197

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (—— · · · ——) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
2. REFER TO DRAWINGS LT-1 THROUGH LT-5 FOR LIGHTING PLANS.
3. REFER TO DRAWINGS LT-6 THROUGH LT-10 FOR CIRCUIT SCHEMATICS.
4. FIELD VERIFY CIRCUITING OF EXISTING TO REMAIN LIGHTS. MAINTAIN CONTINUITY OF CIRCUITS PASSING THROUGH EXISTING LIGHTS.

SHEET KEYNOTES:

1. INTERCEPT EXISTING CONDUIT AT POLE BASE
2. COORDINATE LOCATION OF ELECTRIC MANHOLE WITH PEPCO.



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
- PROPOSED TRENCHING TO ACCOMODATE 1 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- PROPOSED TRENCHING TO ACCOMODATE 6 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- E — PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

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

LT-6

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
CIRCUIT SCHEMATICS 1

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET / OF
DRAWING NO.

SUBMITTED BY PROJECT ENGINEER DATE
RECOMMENDED PROJECT MANAGER DATE
ITS SYSTEMS SUPPORT MANAGER DATE
APPROVED PROGRAM MANAGER DATE

S.L.F. NO.
APPROVED BY DATE

DISTRICT OF COLUMBIA JAMES E. GOOD No. PE908773 PROFESSIONAL ENGINEER ELECTRICAL

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$FILE$
$DATE$

REVISION									
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1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	136	197

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (—— · · —— · · ——) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
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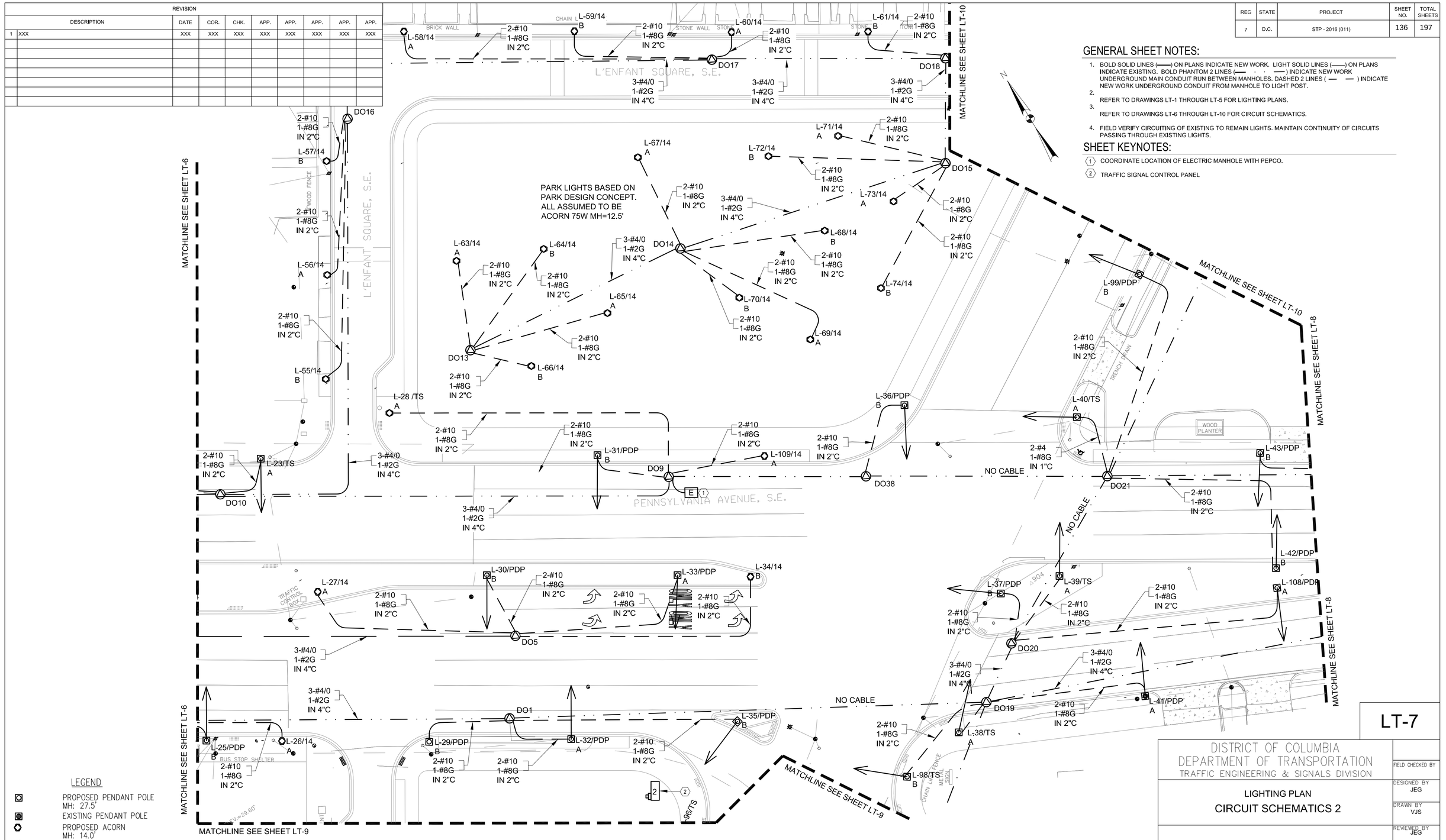
4. FIELD VERIFY CIRCUITING OF EXISTING TO REMAIN LIGHTS. MAINTAIN CONTINUITY OF CIRCUITS PASSING THROUGH EXISTING LIGHTS.

SHEET KEYNOTES:

1. COORDINATE LOCATION OF ELECTRIC MANHOLE WITH PEPCO.
2. TRAFFIC SIGNAL CONTROL PANEL



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
- PROPOSED TRENCHING TO ACCOMODATE 1 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- PROPOSED TRENCHING TO ACCOMODATE 6 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- [E] PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

SCALE: 1"= 20'-0"

LT-7

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
CIRCUIT SCHEMATICS 2

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET OF
DRAWING NO.

SUBMITTED BY PROJECT ENGINEER DATE
RECOMMENDED PROJECT MANAGER DATE
ITS SYSTEMS SUPPORT MANAGER DATE
APPROVED PROGRAM MANAGER DATE

S.L.F. NO.
APPROVED BY DATE

DISTRICT OF COLUMBIA JAMES E. GOOD No. PE908773 ELECTRICAL PROFESSIONAL ENGINEER

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$FILE$
$DATE$

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1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	137	197

GENERAL SHEET NOTES:

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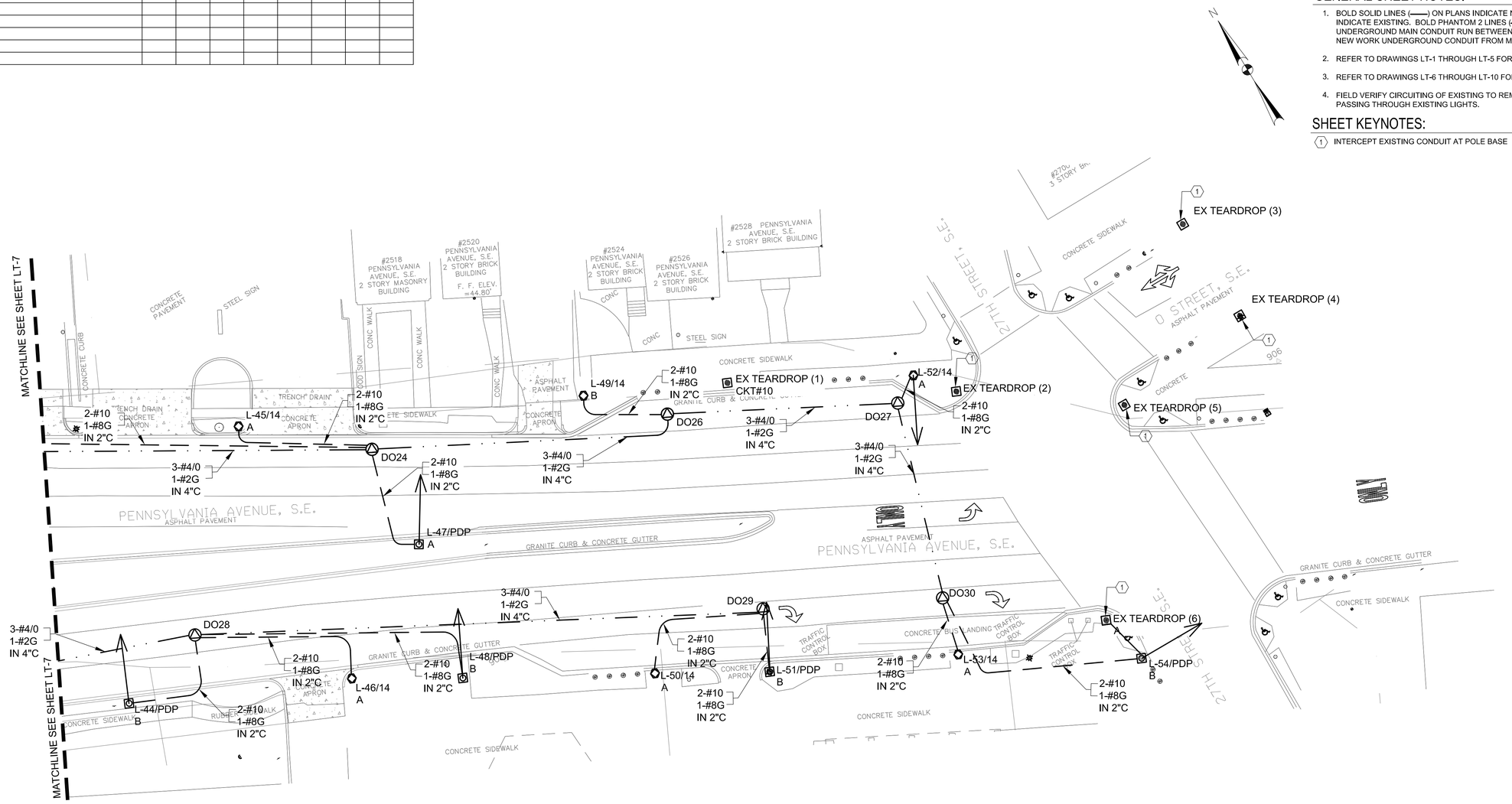
SHEET KEYNOTES:

(1) INTERCEPT EXISTING CONDUIT AT POLE BASE



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
- PROPOSED TRENCHING TO ACCOMODATE 1 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- PROPOSED TRENCHING TO ACCOMODATE 6 WAY 4" BRANCH CIRCUIT CONDUIT DUCTBANK
- [E] PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

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

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S.L.F. NO. _____

APPROVED BY _____ DATE _____

LT-8

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
CIRCUIT SCHEMATICS 3

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET OF
DRAWING NO.

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	138	197

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (— · · —) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
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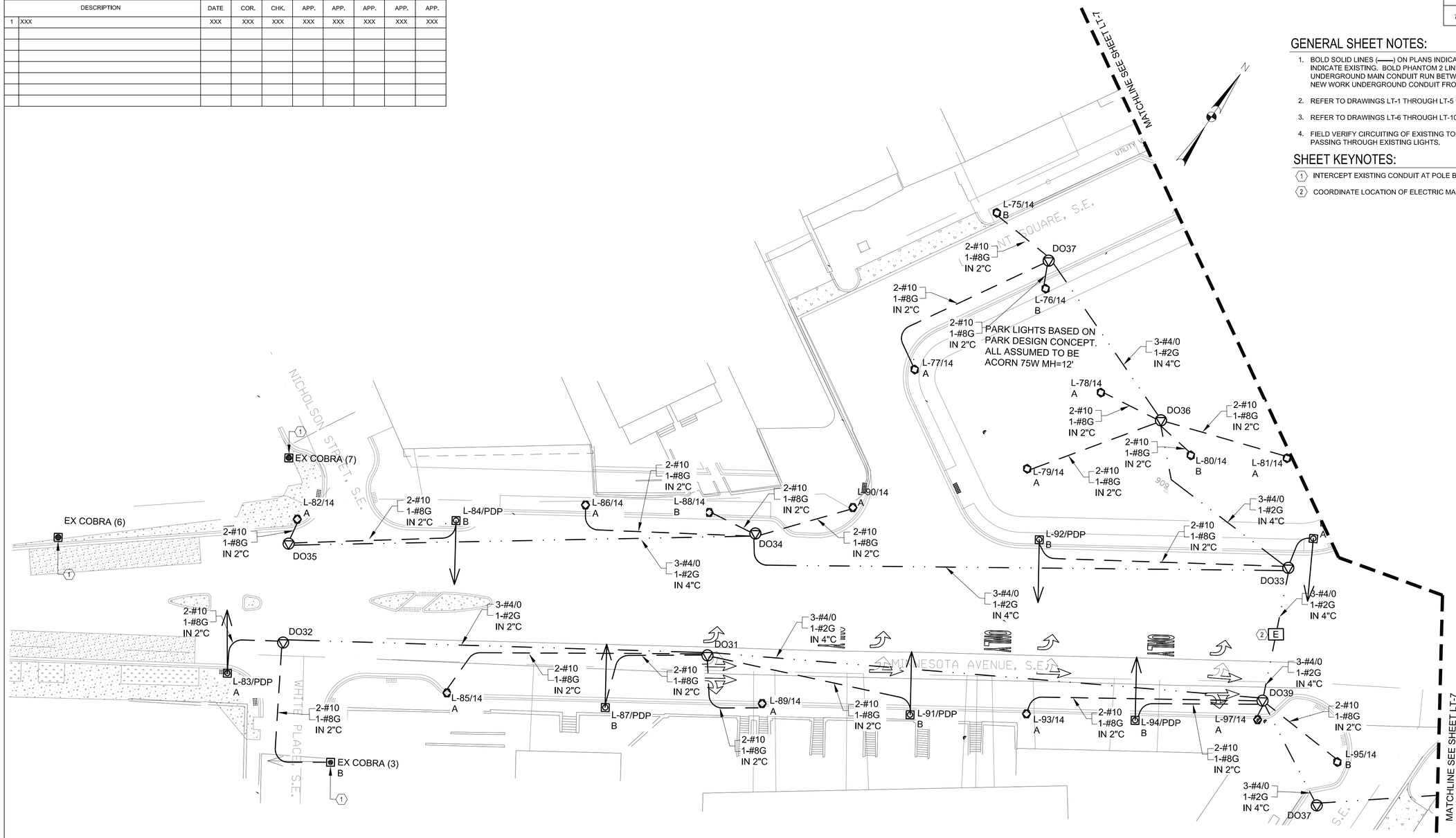
SHEET KEYNOTES:

(1) INTERCEPT EXISTING CONDUIT AT POLE BASE

(2) COORDINATE LOCATION OF ELECTRIC MANHOLE WITH PEPCO.



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
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- (E) PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

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

S.L.F. NO.

APPROVED BY _____ DATE

LT-9

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
CIRCUIT SCHEMATICS 4

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET OF
DRAWING NO.

SUBMITTED BY _____ PROJECT ENGINEER DATE
RECOMMENDED _____ PROJECT MANAGER DATE
_____ ITS SYSTEMS SUPPORT MANAGER DATE
APPROVED _____ PROGRAM MANAGER DATE

$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	139	197

GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD PHANTOM 2 LINES (— · · —) INDICATE NEW WORK UNDERGROUND MAIN CONDUIT RUN BETWEEN MANHOLES. DASHED 2 LINES (— —) INDICATE NEW WORK UNDERGROUND CONDUIT FROM MANHOLE TO LIGHT POST.
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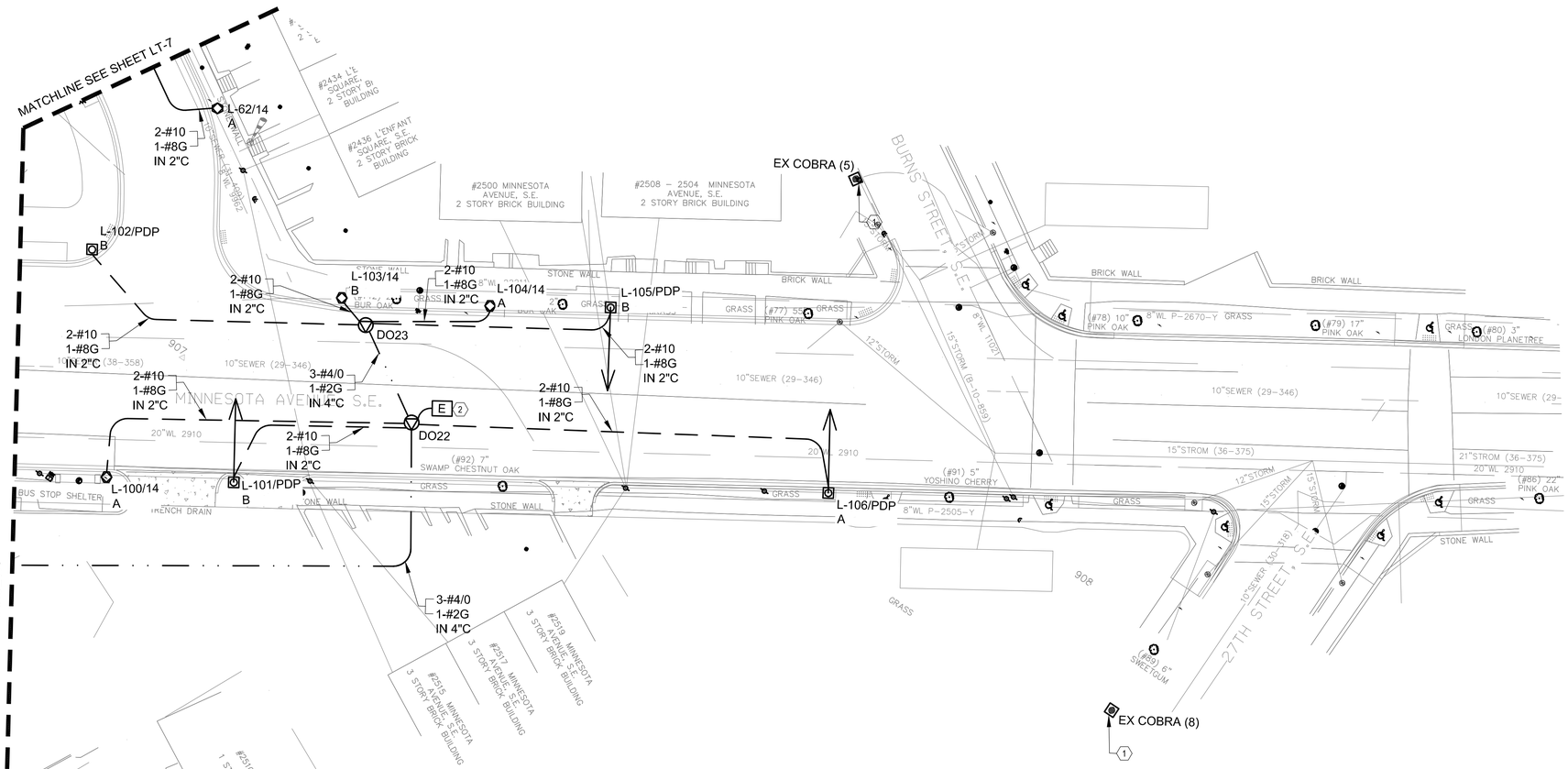
SHEET KEYNOTES:

(1) INTERCEPT EXISTING CONDUIT AT POLE BASE

(2) COORDINATE LOCATION OF ELECTRIC MANHOLE WITH PEPCO.



LEGEND

- PROPOSED PENDANT POLE MH: 27.5'
- EXISTING PENDANT POLE
- PROPOSED ACORN MH: 14.0'
- PROPOSED ELECTRICAL MANHOLE LOCATION
- PROPOSED TRENCHING TO ACCOMODATE 2" BRANCH CIRCUIT CONDUITS
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- [E] PROPOSED LOCATION OF PEPCO ELECTRIC UTILITY MANHOLE

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

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S.L.F. NO. _____

APPROVED BY _____ DATE _____

LT-10

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
CIRCUIT SCHEMATICS 5

SUBMITTED BY _____ DATE _____
PROJECT ENGINEER

RECOMMENDED _____ DATE _____
PROJECT MANAGER

ITS SYSTEMS SUPPORT MANAGER _____ DATE _____

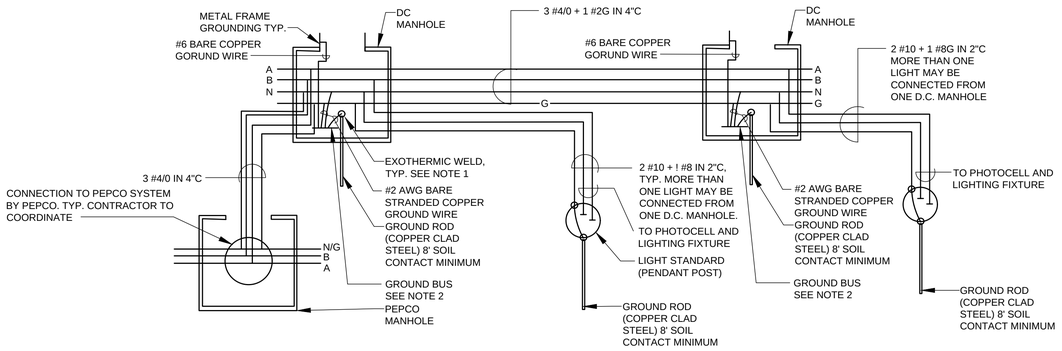
APPROVED _____ DATE _____
PROGRAM MANAGER

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET OF
DRAWING NO.

$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

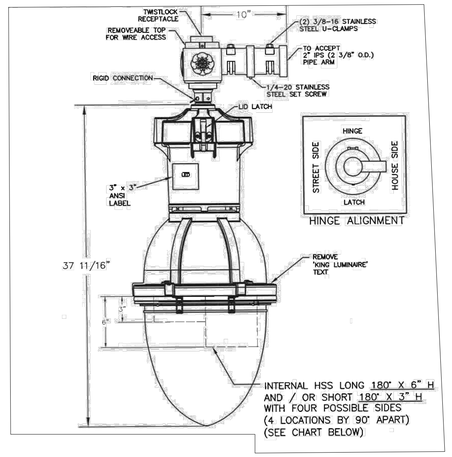
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	140	197



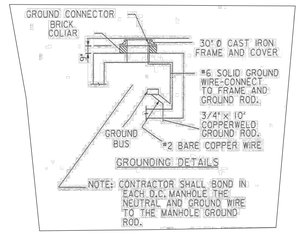
TYPICAL DETAIL
1 LT-11 SCALE: NONE
WIRING DIAGRAM

GENERAL NOTES:

1. PROVIDE TWO COATS OF ELECTRICAL WATERPROOF COATING OVER WELD AND BARE METALS IN THE SURROUNDING AREAS. REQUIREMENT IS TYPICAL FOR ALL EXOTHERMIC WELD FOR GROUND CONNECTIONS.
2. PROVIDE A 2"X/4"X8" (HXWXL) COPPER GROUND BUS NEAR THE GROUND ROD. INSTALL THE BUS ON MANHOLE WALL WITH ANCHORS AND 2 1/4" BOLTS. 2 INCHES FROM MANHOLE WALL SURFACE.



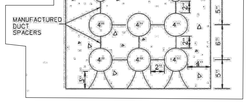
TYPICAL DETAIL
2 LT-11 SCALE: NONE
DDOT PENDANT FIXTURE



TYPICAL DETAIL
3 LT-11 SCALE: NONE
TREE TRIM FOR DECORATIVE STREET LIGHT POLE

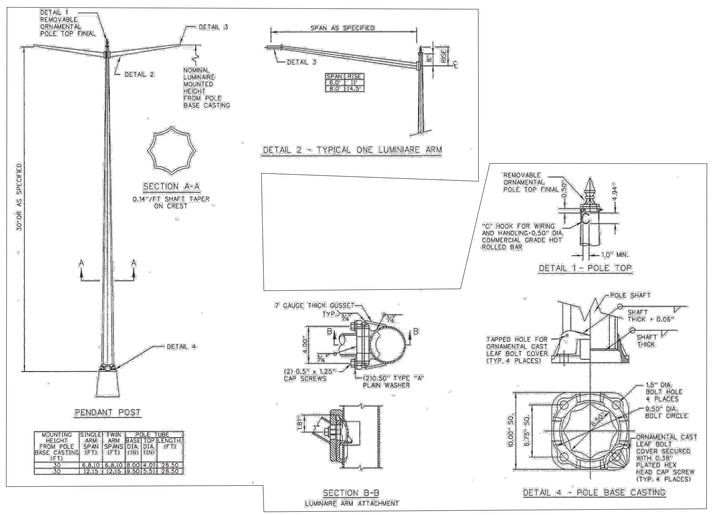
GENERAL SHEET NOTES:

1. BOLD SOLID LINES (——) ON PLANS INDICATE NEW WORK. LIGHT SOLID LINES (——) ON PLANS INDICATE EXISTING. BOLD DASHED LINES (— —) INDICATE NEW WORK UNDERGROUND OR SURFACE.
2. REFER TO DRAWINGS LT-1 THROUGH LT-5 FOR LIGHTING PLANS.
3. REFER TO DRAWINGS LT-6 THROUGH LT-10 FOR CIRCUIT SCHEMATICS.
4. EXISTING COBRA AND TEARDROP LIGHTS ARE INCLUDED IN LOAD CALCULATIONS. THE CIRCUITING OF EXISTING LIGHTS NEED TO BE FIELD VERIFIED AND IF CHANGES ARE MADE THEN LOADS MUST BE ADJUSTED.



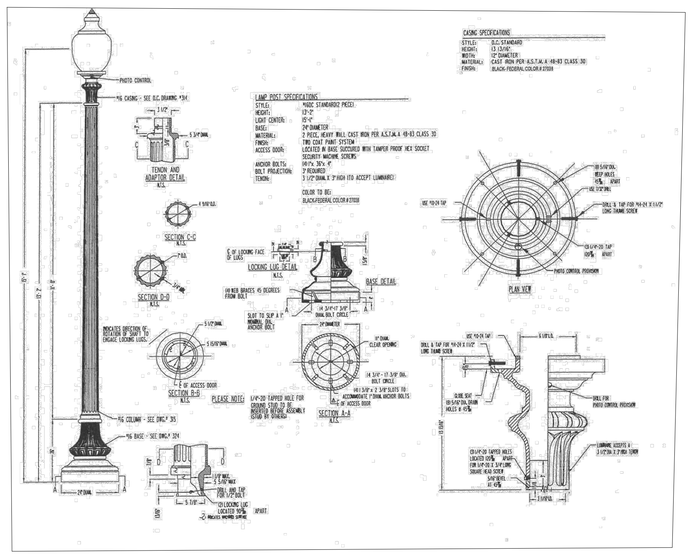
TYPICAL DETAIL
7 LT-11 SCALE: NONE
6 DUCT BANK CONFIGURATION

TYPICAL DETAIL
8 LT-11 SCALE: NONE
TREE TRIM FOR DECORATIVE STREET LIGHT POLE

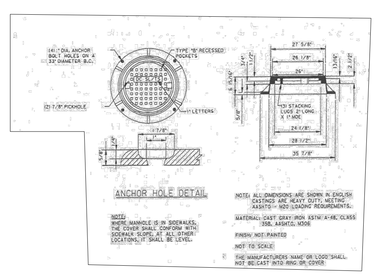


MOUNTING HEIGHT FROM POLE BASE CASTING (FT)	SHAFT THICK (IN)	ARM SPAN (FT)	ARM RISE (FT)	BASE DIA. (IN)	POLE LENGTH (FT)
30	0.206	6	3.0	10.00	41.50
30	0.206	8	4.0	10.00	41.50

TYPICAL DETAIL
4 LT-11 SCALE: NONE
STREETLIGHT PENDANT POLE (DDOT-DWG. NO. 614.10)



TYPICAL DETAIL
5 LT-11 SCALE: NONE
STREETLIGHT STANDARD POLES-1 (DDOT-DWG. NO. 614.11)



TYPICAL DETAIL
6 LT-11 SCALE: NONE
MANHOLE FRAME AND COVER

LT-11

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
SINGLE LINE DIAGRAM, PANELBOARD SCHEDULE, AND DETAILS

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET / OF
DRAWING NO.

SUBMITTED BY _____ DATE
PROJECT ENGINEER

RECOMMENDED _____ DATE
PROJECT MANAGER

_____ DATE
ITS SYSTEMS SUPPORT MANAGER

APPROVED _____ DATE
PROGRAM MANAGER

DISTRICT OF COLUMBIA
JAMES E. GOOD
No. PE908773
PROFESSIONAL ENGINEER
ELECTRICAL

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

TooleDesignGroup
8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MD 20910
PHONE: (301) 927-1900 FAX: (301) 927-2800
www.tooledesign.com
PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

S.L.F. NO. _____

APPROVED BY _____ DATE

$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	141	197

PROPOSED STREETLIGHT POLE/LUMINAIRE INFORMATION

	DWG NO.	POLE/LUM NO.	MARYLAND GRID PLAT	PHASE	LUM TYPE	TYPE OF POLE	MOUNTING HEIGHT	LAMP WATTS
PENNSYLVANIA AVE	LT-1 & LT-6	LP1/PDP		A	TEARDROP TYPE 3	PENDANT		200 W
	LT-1 & LT-6	LP2/PDP		B	TEARDROP TYPE 3	PENDANT		150W
	LT-1 & LT-6	LP3/PDP		A	TEARDROP TYPE 3	PENDANT		120W
	LT-1 & LT-	LP4/PDP		A	TEARDROP TYPE 3	PENDANT		150W
	LT-1 & LT-6	LP5/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-1 & LT-	LP6/PDP		B	TEARDROP TYPE 3	PENDANT		200W
	LT-1 & LT-6	LP7/PDP		B	TEARDROP TYPE 3	PENDANT		150W
	LT-1 & LT-6	LP8/PDP		A	TEARDROP TYPE 3	PENDANT		150W
	LT-1 & LT-	LP9/PDP		B	TEARDROP TYPE 3	PENDANT		150W
	LT-1 & LT-6	LP10/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-1 & LT-6	LP11/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-1 & LT-6	LP12/PDP		A	TEARDROP TYPE 3	PENDANT		200W
	LT-1 & LT-6	LP13/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-1 & LT-6	LP14/14		A	ACORN 120W	NO. 14		120W
	LT-1 & LT-6	LP15/14		B	ACORN 120W	NO. 14		120W
	LT-1 & LT-6	LP16/PDP		A	TEARDROP TYPE 3	PENDANT		200W
	LT-1 & LT-6	LP17/PDP		B	TEARDROP TYPE 3	PENDANT		200W
	LT-1 & LT-6	LP18/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-1 & LT-6	LP19/PDP		A	TEARDROP TYPE 3	PENDANT		150W
	LT-1 & LT-6	LP20/PDP		A	TEARDROP TYPE 3	PENDANT		200W
	LT-1 & LT-6	LP21/14		A	ACORN 120W	NO. 14		120W
	LT-1 & LT-6	LP22/14		B	ACORN 120W	NO. 14		120W
	LT-2 & LT- 7	LP23/TS-##		A	TEARDROP TYPE 3	SIGNAL		200W
	LT-1 & LT-6	LP24/14		B	ACORN 120W	NO. 14		100W
	LT-2 & LT- 7	LP25/PDP		B	TEARDROP TYPE 3	PENDANT		200W
	LT-2 & LT- 7	LP26/14		A	ACORN 120W	NO. 14		100W
	LT-2 & LT- 7	LP27/14		A	ACORN 120W	NO. 14		120W
	LT-2 & LT- 7	LP28/TS-##		A	ACORN 75W	SIGNAL	12.5'	75W
	LT-2 & LT- 7	LP29/PDP		B	TEARDROP TYPE 3	PENDANT		200W
	LT-2 & LT- 7	LP30/PDP		B	TEARDROP TYPE 3	PENDANT		200W
	LT-2 & LT- 7	LP31/PDP		B	TEARDROP TYPE 3	PENDANT		200W
	LT-2 & LT- 7	LP32/PDP		A	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP33/PDP		A	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP34/14		B	ACORN 100W	NO. 14		100W
	LT-2 & LT- 7	LP35/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP36/PDP		B	TEARDROP TYPE 3	PENDANT		200W
	LT-2 & LT- 7	LP37/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP38/TS-##		A	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP39/TS-##		A	TEARDROP TYPE 3	PENDANT		150W
	LT-2 & LT- 7	LP40/TS-##		A	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP41/14		A	ACORN 120W	NO. 14		120W
	LT-2 & LT- 7	LP42/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP43/PDP		B	ACORN 100W	NO. 14		100W
	LT-3 & LT-8	LP44/PDP		B	ACORN 120W	NO. 14		120W
	LT-3 & LT-8	LP45/14		A	ACORN 120W	NO. 14		100W
	LT-3 & LT-8	LP46/14		A	ACORN 100W	NO. 14		100w
	LT-3 & LT-8	LP47/PDP		A	TEARDROP TYPE 3	PENDANT		200W
	LT-3 & LT-8	LP48/PDP		B	TEARDROP TYPE 3	PENDANT		150W
	LT-3 & LT-8	LP49/14		B	ACORN 120W	NO. 14		100W
	LT-3 & LT-8	LP50/14		A	ACORN 120W	NO. 14		100W
	LT-3 & LT-8	LP51/PDP		B	TEARDROP TYPE 3	PENDANT		150W
	LT-3 & LT-8	LP52/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-3 & LT-8	LP53/14		A	ACORN 120W	NO. 14		120W
	LT-3 & LT-8	LP54/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-1 & LT-6	LP107/PDP		A	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP108/PDP		A	TEARDROP TYPE 3	PENDANT		120W
	LT-2 & LT- 7	LP109/14		A	ACORN ??			???
L'ENFANT SQUARE	LT-2 & LT- 7	LP55/PDP		B	TEARDROP TYPE 3	PENDANT	27.5	120W
	LT-2 & LT- 7	LP56/PDP		A	TEARDROP TYPE 3	PENDANT	27.5	120W
	LT-2 & LT- 7	LP57/PDP		B	TEARDROP TYPE 3	PENDANT	27.5	120W
	LT-2 & LT- 7	LP58/14		A	ACORN 100W	NO. 14		100W
	LT-2 & LT- 7	LP59/14		B	ACORN 120W	NO. 14		120W
	LT-2 & LT- 7	LP60/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP61/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-5 & LT-10	LP62/14		A	ACORN 75W	NO. 14	12.5'	75W

PROPOSED STREETLIGHT POLE/LUMINAIRE INFORMATION

	DWG NO.	POLE/LUM NO.	MARYLAND GRID PLAT	PHASE	LUM TYPE	TYPE OF POLE	MOUNTING HEIGHT	LAMP WATTS
L'ENFANT SQUARE (PARK)	LT-2 & LT- 7	LP63/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP64/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP65/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP66/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP67/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP68/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP69/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP70/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP71/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP72/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP73/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP74/14		B	ACORN 75W	NO. 14	12.5'	75W
ALLEY + PARK	LT-4 & LT- 9	LP75/14		B	ACORN 100W	NO. 14		100W
	LT-4 & LT- 9	LP76/14		B	ACORN 120W	NO. 14		120W
	LT-4 & LT- 9	LP77/14		A	ACORN 100W	NO. 14		100W
	LT-4 & LT- 9	LP78/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-4 & LT- 9	LP79/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-4 & LT- 9	LP80/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-4 & LT- 9	LP81/14		A	ACORN 75W	NO. 14	12.5'	75W
MINNESOTA AVE	LT-4 & LT- 9	LP82/PDP		A	ACORN 75W	NO. 14		75W
	LT-4 & LT- 9	LP83/PDP		A	TEARDROP TYPE 3	PENDANT		120W
	LT-4 & LT- 9	LP84/PDP		B	TEARDROP TYPE 3	PENDANT		150W
	LT-4 & LT- 9	LP85/14		A	ACORN 120W	NO. 14		120W
	LT-4 & LT- 9	LP86/14		A	ACORN 100W	NO. 14		100W
	LT-4 & LT- 9	LP87/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-4 & LT- 9	LP88/14		B	ACORN 120W	NO. 14		120W
	LT-4 & LT- 9	LP89/14		A	ACORN 120W	NO. 14		120W
	LT-4 & LT- 9	LP90/14		A	ACORN 120W	NO. 14		120W
	LT-4 & LT- 9	LP91/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-4 & LT- 9	LP92/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-4 & LT- 9	LP93/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-4 & LT- 9	LP94/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-4 & LT- 9	LP95/TS-##		B	ACORN 75W	SIGNAL	12.5'	75W
	LT-4 & LT- 9	LP96/TS-##		A	TEARDROP TYPE 3	SIGNAL		120W
	LT-4 & LT- 9	LP97/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-2 & LT- 7	LP98/TS-##		B	TEARDROP TYPE 3	SIGNAL		120W
	LT-2 & LT- 7	LP99/PDP		B	TEARDROP TYPE 3	PENDANT		150W
	LT-5 & LT-10	LP100/14		A	ACORN 120W	NO. 14		120W
	LT-5 & LT-10	LP101/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-5 & LT-10	LP102/PDP		B	TEARDROP TYPE 3	PENDANT		120W
	LT-5 & LT-10	LP103/14		B	ACORN 75W	NO. 14	12.5'	75W
	LT-5 & LT-10	LP104/14		A	ACORN 75W	NO. 14	12.5'	75W
	LT-5 & LT-10	LP105/PDP		B	TEARDROP TYPE 3	NO. 14		120W
	LT-5 & LT-10	LP106/PDP		A	TEARDROP TYPE 3	NO. 14		120W

EXISTING STREETLIGHT POLE/LUMINAIRE INFROMATION

DWG NO.	POLE/LUM NO.	MARYLAND GRID PLAT	PHASE	LUM TYPE	TYPE OF POLE	LAMP WATTS
LT-1 & LT-6	EX COBRA 1		B	COBRA	27.5'	215 (ASSUMED)
LT-1 & LT-6	EX COBRA 2		A	COBRA	27.5'	215 (ASSUMED)
LT-4 & LT-9	EX COBRA 3		B	COBRA	27.5'	215 (ASSUMED)
LT-1 & LT-6	EX COBRA 4		A	COBRA	27.5'	215 (ASSUMED)
LT-5 & LT-10	EX COBRA 5		B	COBRA	27.5'	215 (ASSUMED)
LT-3 & LT-8	EX TEARDROP 1		B	TEARDROP	27.5	150W (ASSUMED)
LT-3 & LT-8	EX TEARDROP 2		A	TEARDROP	27.5	200W (ASSUMED)
LT-3 & LT-8	EX TEARDROP 3		B	TEARDROP	27.5	120W (ASSUMED)
LT-3 & LT-8	EX TEARDROP 4		A	TEARDROP	27.5	150W (ASSUMED)
LT-3 & LT-8	EX TEARDROP 5		B	TEARDROP	27.5	120W (ASSUMED)
LT-3 & LT-8	EX TEARDROP 6		A	TEARDROP	27.5	120W (ASSUMED)
LT-4 & LT-9	EX COBRA 6		B	COBRA	27.5	215 (ASSUMED)
LT-4 & LT-9	EX COBRA 7		A	COBRA	27.5	215 (ASSUMED)
LT-5 & LT-10	EX COBRA 8		A	COBRA	27.5	215 (ASSUMED)

LT-12

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
PROPOSED STREETLIGHT POLE/LUMINAIRE INFORMATION

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET / OF
DRAWING NO.

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
_____ ITS SYSTEMS SUPPORT MANAGER _____ DATE
APPROVED _____ PROGRAM MANAGER _____ DATE

S.L.F. NO.
APPROVED BY _____ DATE

DISTRICT OF COLUMBIA
JAMES E. GOOD
No. PE908773
PROFESSIONAL ELECTRICAL ENGINEER

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PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

$FILE$
$DATE$

REVISION									
	DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.
1	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP - 2016 (011)	142	197

CONDUIT SUMMARY

SCHEDULE														
PAY ITEM NUMBER														
FROM	FROM STA	TO	TO STA	DISTANCE	1-2" & 2-4"	1-2" & 1-4"	4-4"	1-2"	1-4"	6-4"	6-4" & 1-2"	6-4" & 2-2"	2-4"	10-4"
DO41		L-1		99				99						
DO41		L-2		14				14						
DO12		L-9		36				36						
DO11		L-11		82				82						
DO11		L-15		22				22						
DO11		L-16		71				71						
DO11		L-18		99				99						
DO10		L-19		115				115						
DO10		L-22		66				66						
DO10		L-23		36				36						
DO16		L-55		157				157						
DO16		L-56		95				95						
DO16		L-57		30				30						
DO17		L-58		193				193						
DO17		L-59		92				92						
DO17		L-60		22				22						
DO18		L-61		53				53						
DO18		L-62		35				35						
DO15		L-71		64				64						
DO15		L-72		103				103						
DO15		L-73		37				37						
DO15		L-74		82				82						
DO14		L-67		58				58						
DO14		L-68		85				85						
DO14		L-69		105				105						
DO14		L-70		45				45						
DO13		L-63		52				52						
DO13		L-64		72				72						
DO13		L-65		82				82						
DO13		L-66		36				36						
DO9		L-31		46				46						
DO9		L-28		199				199						
DO9		L-109		57				57						
DO38		L-36		53				53						
DO21		L-40		42				42						
DO21		L-42		144				144						
DO21		L-99		133				133						
DO22		L-100		133				133						
DO22		L-101		81				81						
DO22		L-106		174				174						
DO23		L-102		116				116						
DO23		L-103		12				12						
DO23		L-104		50				50						
DO23		L-105		97				97						
DO24		L-45		66				66						
DO24		L-47		53				53						
DO26		L-49		43				43						
DO27		L-52		13				13						
DO30		L-53		25				25						
DO30		L-54		110				110						
DO8		L-3		155				155						
DO8		L-6		22				22						
DO8		L-7		33				33						
DO7		L-12		27				27						
DO7		L-13		17				17						
DO6		L-20		29				29						
DO6		L-24		78				78						
DO2		L-17		122				122						
DO2		L-21		31				31						
DO2		L-25		91				91						
DO2		L-26		137				137						
DO5		L-27		128				128						
DO5		L-30		38				38						
DO5		L-33		115				115						
DO5		L-34		170				170						

CONDUIT SUMMARY

SCHEDULE														
PAY ITEM NUMBER														
FROM	FROM STA	TO	TO STA	DISTANCE	1-2" & 2-4"	1-2" & 1-4"	4-4"	1-2"	1-4"	6-4"	6-4" & 1-2"	6-4" & 2-2"	2-4"	10-4"
DO1		L-29		55				55						
DO1		L-32		42				42						
DO1		L-35		134				134						
DO19		L-38		23				23						
DO19		L-41		99				99						
DO19		L-98		70				70						
DO20		L-37		37				37						
DO20		L-39		48				48						
DO20		L-108		172				172						
DO28		L-44		57				57						
DO28		L-46		86				86						
DO28		L-48		137				137						
DO29		L-50		69				69						
DO29		L-51		27				27						
DO39		L-93		123				123						
DO39		L-94		67				67						
DO39		L-95		47				47						
DO39		L-97		9				9						
DO31		L-85		141				141						
DO31		L-87		69				69						
DO31		L-89		49				49						
DO31		L-91		110				110						
DO32		L-83		40				40						
DO33		L-92		130				130						
DO33		L-96		20				20						
DO34		L-86		95				95						
DO34		L-88		25				25						
DO34		L-90		50				50						
DO35		L-82		12				12						
DO35		L-84		89				89						
DO36		L-78		32				32						
DO36		L-79		71				71						
DO36		L-80		22				22						
DO36		L-81		65				65						
DO37		L-75		34				34						
DO37		L-76		13				13						
DO37		L-77		101				101						
DO41		DO12		240						240				
DO12		DO11		158						158				
DO11		DO10		261						261				
DO10		DO9		269						269				
DO9		DO38		111						111				
DO38		DO21		137						137				
DO21		DO24		265						265				
DO24		DO26		138					138					
DO26		DO27		100						100				
DO27		DO30		86						86				
DO4		DO3		332						332				
DO3		DO2		253						253				
DO2		DO1		260						260				
DO1		DO19		277						277				
DO19		DO28		261						261				
DO28		DO29		256						256				
DO19		DO37		139					139					
DO37		DO39		54					54					
DO39		DO31		277					277					
DO31		DO32		210					210					
DO39		DO33		63					63					
DO33		DO34		279					279					
DO34		DO35		231					231					
DO33		DO36		99					99					
DO36		DO37		94					94					
DO8		DO7		166					166					
DO7		DO6		262					262					
DO6		DO5		266					266					
DO21		DO22		330					330					
DO22		DO23		36					36					
DO10		DO16		290					290					
DO16		DO17		240					240					
DO17		DO18		133					133					
DO18		DO15		57					57					
DO15		DO14		160					160					
DO14		DO13		133					133					
TOTAL				14371				7448	3657	3266				

LT-13

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SIGNALS DIVISION

LIGHTING PLAN
PROPOSED STREETLIGHT POLE/LUMINAIRE
INFORMATION

FIELD CHECKED BY
DESIGNED BY JEG
DRAWN BY VJS
REVIEWED BY JEG
DATE 09/19/2018
SCALE
SHEET / OF
DRAWING NO.

SUBMITTED BY _____ PROJECT ENGINEER _____ DATE
RECOMMENDED _____ PROJECT MANAGER _____ DATE
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S.L.F. NO. _____
APPROVED BY _____ DATE

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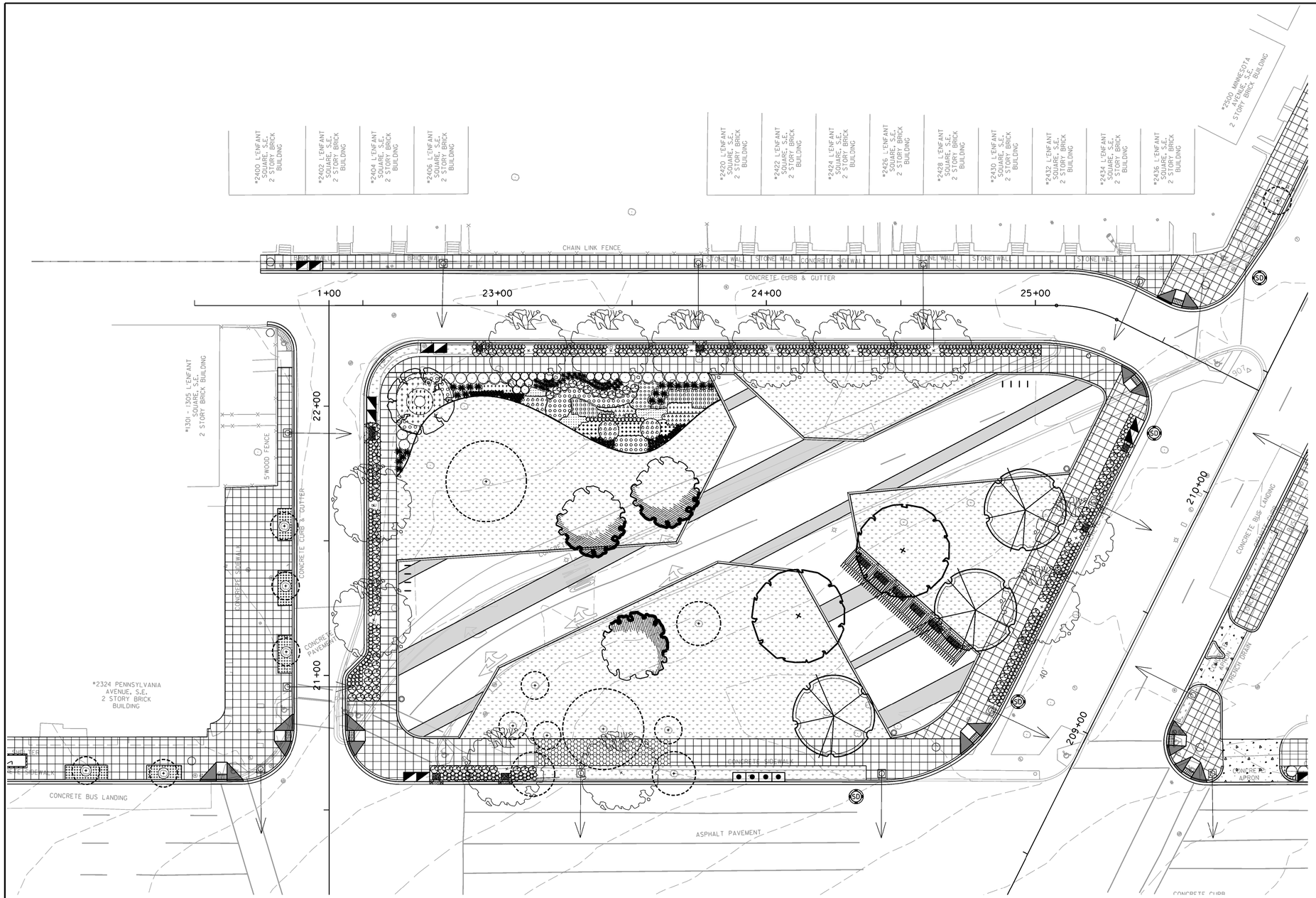
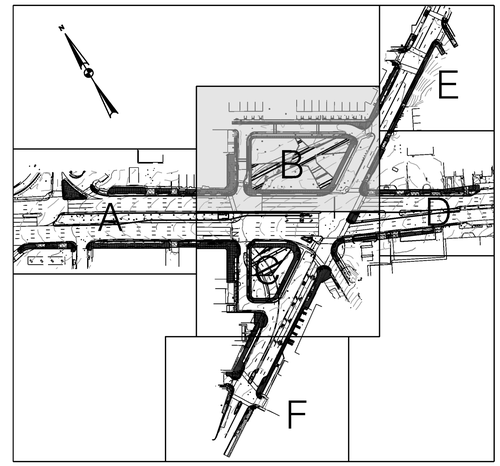
PHONE: (301) 927-1900 FAX: (301) 927-2800
www.tooledesign.com
PLANNING | ENGINEERING | LANDSCAPE ARCHITECTURE

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	143	197





VICINITY MAP
SCALE: 1" = 200'

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

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-1

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

NORTH SQUARE
LANDSCAPE PLAN OVERALL

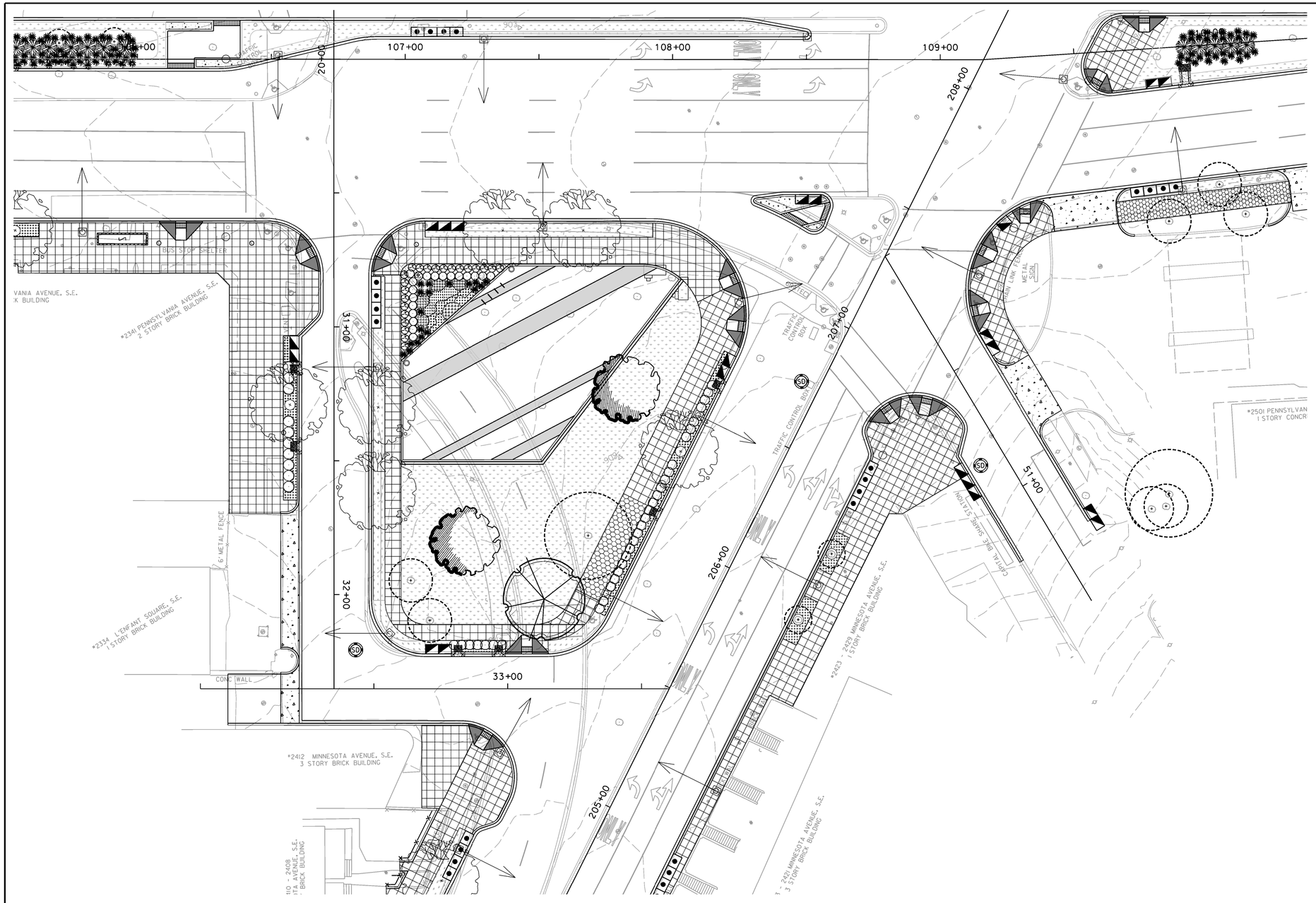
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

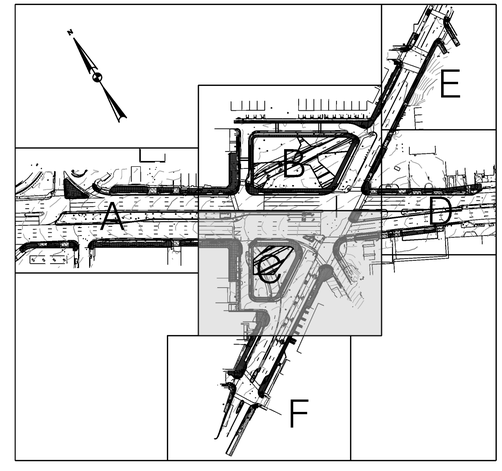
DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 143 OF 197

S:\0001-1000\0382A - Penn. Ave & Minn Ave. SE\cadd\construction documents\Landscape Arch Files\pLD-P001_LANDSCAPE PLAN OVERALL NORTH.dgn
Wednesday, September 19, 2018 AT 11:32 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	144	197





VICINITY MAP
SCALE: 1" = 200'

LS-2

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

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Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW
SOUTH SQUARE
LANSCAPE PLAN OVERALL

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 144 OF 197

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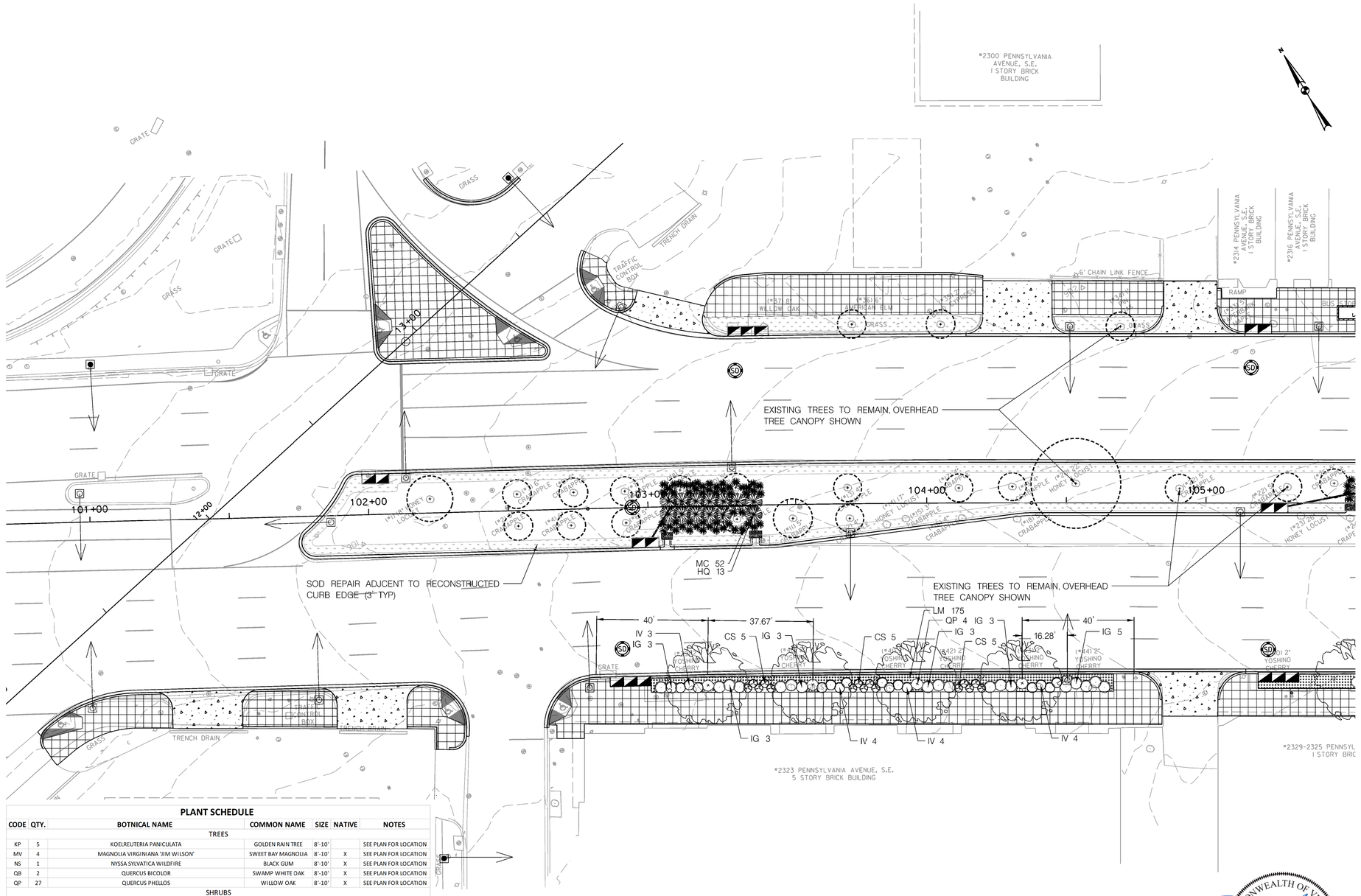
Wednesday, September 19, 2018 AT 11:33 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	145	197



PLANT SCHEDULE

CODE	QTY.	BOTNICAL NAME	COMMON NAME	SIZE	NATIVE	NOTES
		TREES				
KP	5	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	8'-10'		SEE PLAN FOR LOCATION
MV	4	MAGNOLIA VIRGINIANA 'JIM WILSON'	SWEET BAY MAGNOLIA	8'-10'	X	SEE PLAN FOR LOCATION
NS	1	NYSSA SYLVATICA WILDFIRE	BLACK GUM	8'-10'	X	SEE PLAN FOR LOCATION
QB	2	QUERCUS BICOLOR	SWAMP WHITE OAK	8'-10'	X	SEE PLAN FOR LOCATION
QP	27	QUERCUS PHELLOS	WILLOW OAK	8'-10'	X	SEE PLAN FOR LOCATION
		SHRUBS				
CS	197	CORNUS SERICEA 'FARROW'	RED TWIG DOGWOOD	5 GAL	X	PLANT 3' OC
HA	34	HYDRANGEA ARBORESCENS	SMOOTH HYDRANGEA	3 GAL	X	PLANT 3' OC
HQ	31	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	3 GAL	X	PLANT 5' OC
IG	76	ILEX GLABRA 'COMPACTA'	INKBERRY	3 GAL	X	PLANT 4' OC
IV	48	ILEX VOMITORIA 'CONDEAUX'	YAUPON HOLLY	3 GAL	X	PLANT 3' OC
		PERENNIALS				
AC	46	ASTILBE CHINENSIS VAR. PUMILA	CHINESE ASTILBE	1 GAL		PLANT 18" OC
AH	133	AMSONIA HUBRICHTII	BLUE STAR	1 GAL	X	PLANT 18" OC
AN	31	ASTER NOVAE-ANGLIAE 'ALMA PÖTSCHKE'	NEW ENGLAND ASTER	1 GAL	X	PLANT 18" OC
EP	75	ECHINACEA PURPUREA	CONEFLOWER	1 GAL	X	PLANT 18" OC
HSH	80	HOSTA SP. 'HUSH PUPPIES'	HOSTA	1 GAL		PLANT 18" OC
LM	976	LIRIOPE MUSCARI 'BIG BLUE'	LILY TURF	1 QT		PLANT 18" OC
MB	118	MONARDA 'SCORPION'	BEE BALM	1 GAL		PLANT 18" OC
NR	81	NEPETA RACEMOSA 'BLUE WONDER'	CATMINT	1 GAL		PLANT 18" OC
PA	29	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	1 GAL		PLANT 18" OC
PM	54	PYCNANTHEMUM MUTICUM	BLUNT MOUNTAINMINT	1 GAL	X	PLANT 18" OC
PO	32	POLYGONATUM ODORATUM VAR. PLURIFLORUM 'VARIEGATUM'	SOLOMON'S SEAL	1 GAL		PLANT 18" OC
RH	37	RUDBECKIA HIRTA 'INDIAN SUMMER'	BLACK-EYED SUSAN	1 GAL	X	PLANT 18" OC
SSG	47	SOLIDAGO SPHACELATA 'GOLDEN FLEECE'	GOLDENROD	1 GAL	X	PLANT 18" OC
		ORNAMENTAL GRASS				
CA	44	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL		PLANT 18" OC
MC	186	MUHLENBERGIA CAPILLARIS	PINK MUHLYGRASS	2 GAL		PLANT 18" OC
PAH	500	PENSTEMON ALOPECUROIDES 'HAMELN'	FOUNTAIN GRASS	2 GAL		PLANT 18" OC
JP	96	JUNCUS PATENS 'CARMEN'S GRAY'	GRAY RUSH	2 GAL		PLANT 18" OC

NOTE:

- SEE HARDSCAPE PLAN FOR PAVING NOTES, PATTERN, AND LAYOUT
- SEE STREET TREE PLAN FOR STRUCTURAL SOIL CALCULATION AND EXTENTS
- SEE FURNITURE PLAN FOR FURNITURE LOCATIONS
- SEE DETAIL SHEETS FOR RETAINING WALL SECTION DETAILS AND SPECIFICATION
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TREE SYMBOL LEGEND

- KOELREUTERIA PANICULATE
- MAGNOLIA VIRGINIANA 'JIM WILSON'
- NYSSA SYLVATICA WILDFIRE
- QUERCUS BICOLOR
- QUERCUS PHELLOS
- EXISTING TREE TO REMAIN

SHRUB SYMBOL LEGEND

- CORNUS SERICEA 'FARROW'
- HYDRANGEA ARBORESCENS
- HYDRANGEA QUERCIFOLIA
- ILEX GLABRA 'COMPACTA'
- ILEX VOMITORIA 'CONDEAUX'

PERENNIAL SYMBOL LEGEND cont.

- PROPOSED SOD AREA
- SOLIDAGO SPHACELATA 'GOLDEN FLEECE'
- UNDERDRAIN PIPE

ORNAMENTAL GRASS SYMBOL LEGEND

- CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'
- MUHLENBERGIA CAPILLARIS
- PENSTEMON ALOPECUROIDES 'HAMELN'
- JUNCUS PATENS 'CARMEN'S GRAY'

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- PEROVSKIA ATRIPLICIFOLIA
- PYCNANTHEMUM MUTICUM
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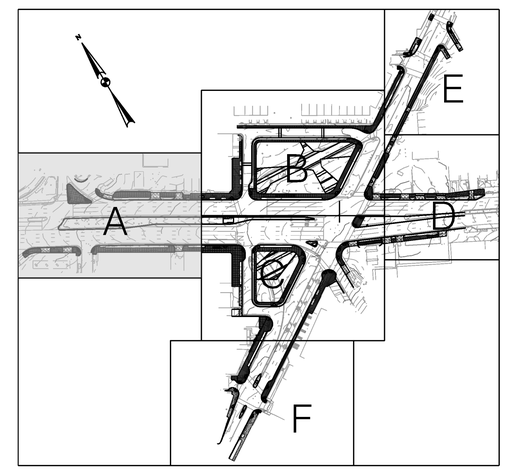

VICINITY MAP
SCALE: 1" = 200'

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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

LS-3

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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

PLANTING PLAN A

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 145 OF 197

S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P003_LANDSCAPE PLAN A.dgn
Wednesday, September 19, 2018 AT 11:34 AM

NOTE:

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- SEE STREET TREE PLAN FOR STRUCTURAL SOIL CALCULATION AND EXTENTS
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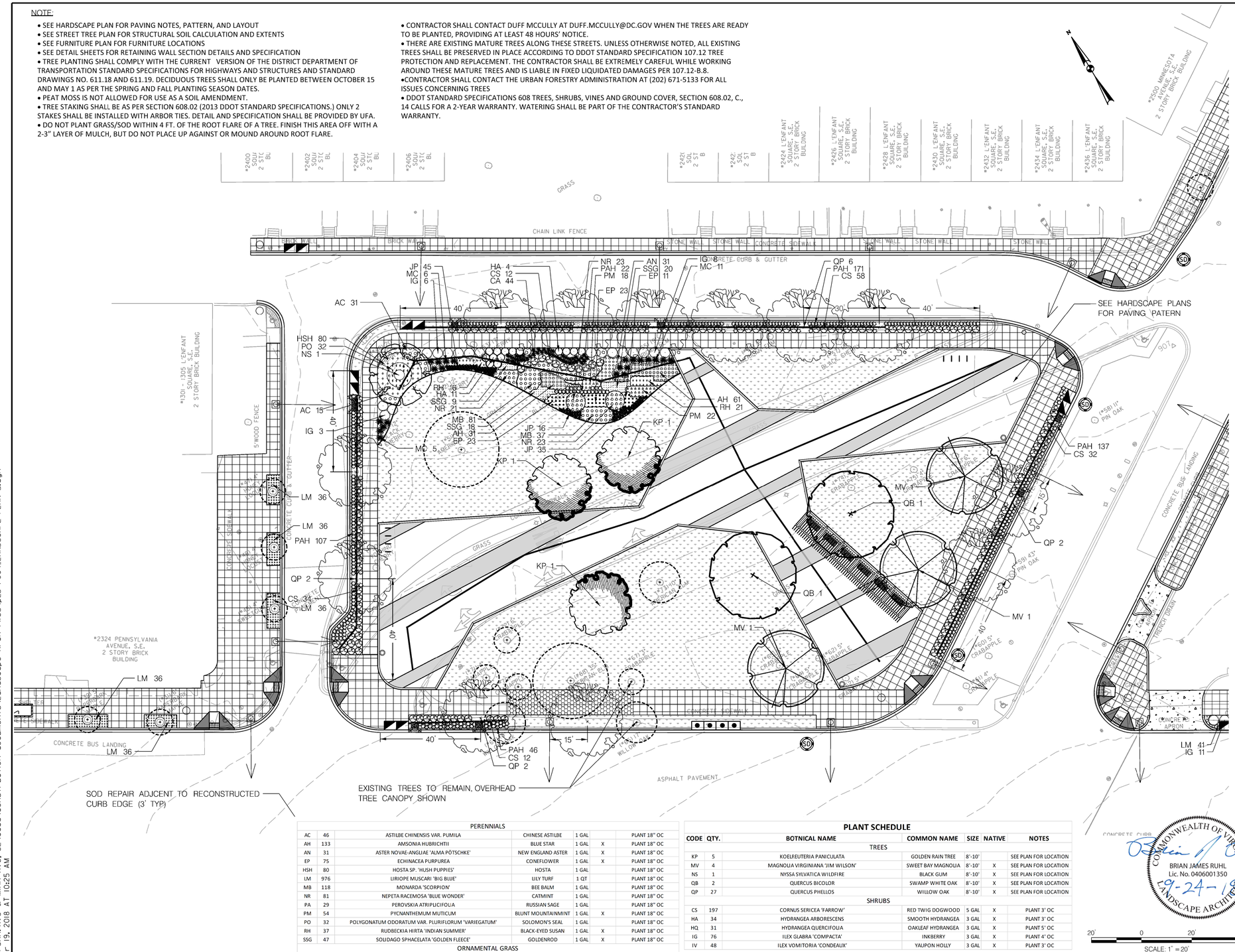
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*2402 SOUTHERN AVENUE, S.E. 2 STORY BRICK BUILDING
*2404 SOUTHERN AVENUE, S.E. 2 STORY BRICK BUILDING
*2406 SOUTHERN AVENUE, S.E. 2 STORY BRICK BUILDING
*2420 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2422 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2424 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2426 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2428 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2430 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2432 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2434 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2436 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2500 MINNESOTA AVENUE, S.E. 2 STORY BRICK BUILDING
*1301 - 1305 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2324 PENNSYLVANIA AVENUE, S.E. 2 STORY BRICK BUILDING
GRASS
CHAIN LINK FENCE
BRICK WALL
STONE WALL
CONCRETE SIDEWALK
CONCRETE CURB & GUTTER
JP 45
MC 6
IG 6
HA 4
CS 12
CA 44
NR 23
PAH 22
PM 18
EP 23
AN 31
SSG 20
EP 11
IG 8
MC 11
QP 6
PAH 171
CS 58
AC 31
40'
30'
SEE HARDSCAPE PLANS FOR PAVING PATERN
HSH 80
PO 32
NS 1
AC 15
IG 3
RH 16
HA 11
SSG 9
NR 2
MB 81
SSG 18
AH 31
EP 23
MC 5
JP 16
MB 37
NR 23
JP 35
KP 1
AH 61
RH 21
PM 22
LM 36
PAH 107
QP 2
CS 12
PAH 137
CS 32
MV 1
QB 1
(*58) 11" PIN OAK
(*60) 43" PIN OAK
(*62) 5" CRABAPPLE
(*67) 6" CRABAPPLE
(*68) 35" PLANE TREE
(*72) 6" CRABAPPLE
(*76) 6" CRABAPPLE
(*78) 6" CRABAPPLE
(*80) 4" CRABAPPLE
(*82) 5" CRABAPPLE
(*84) 5" CRABAPPLE
(*86) 4" CRABAPPLE
(*88) 4" CRABAPPLE
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(*92) 5" CRABAPPLE
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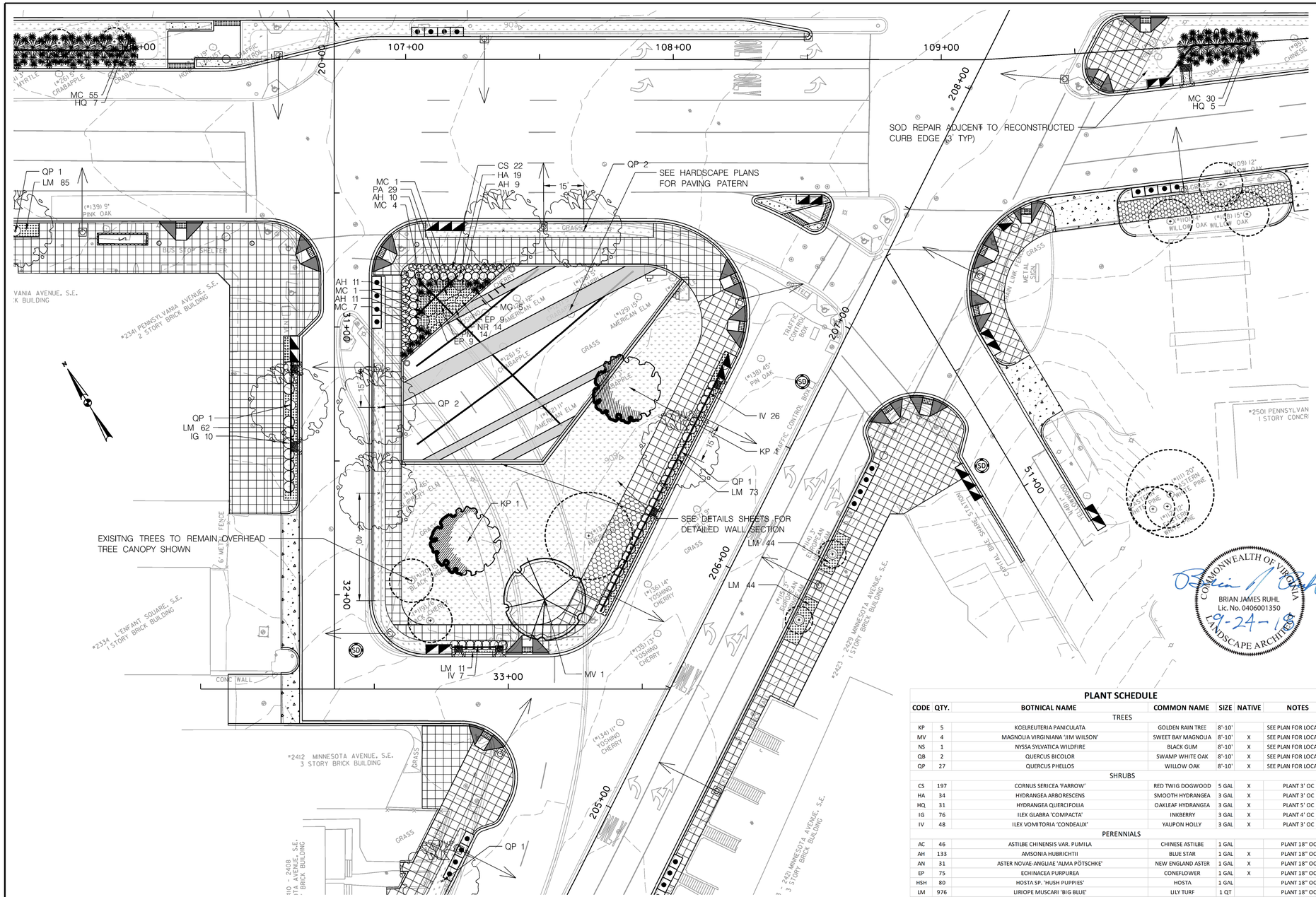
(*110) 4" CRABAPPLE
(*112) 4" CRABAPPLE
(*114) 4" CRABAPPLE
(*116) 4" CRABAPPLE
(*118) 4" CRABAPPLE

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	147	197



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PERENNIAL SYMBOL LEGEND cont.

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

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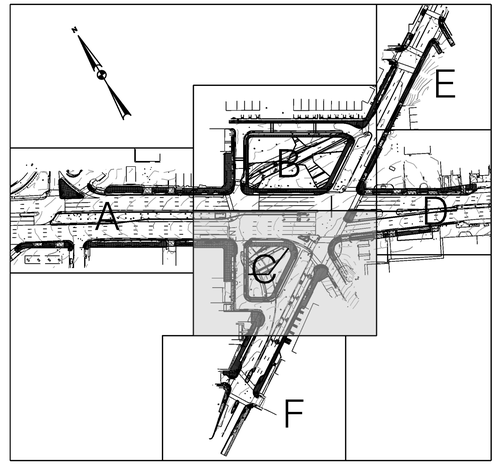
IV	48	ILEX VOMITORIA 'CONDEAUX'	YAUPON HOLLY	3 GAL	X	PLANT 3' OC
		PERENNIALS				
AC	46	ASTILBE CHINENSIS VAR. PUMILA	CHINESE ASTILBE	1 GAL		PLANT 18" OC
AH	133	AMSONIA HUBRICHTII	BLUE STAR	1 GAL	X	PLANT 18" OC
AN	31	ASTER NOVAE-ANGLIAE 'ALMA PÖTSCHKE'	NEW ENGLAND ASTER	1 GAL	X	PLANT 18" OC
EP	75	ECHINACEA PURPUREA	CONEFLOWER	1 GAL	X	PLANT 18" OC
HSH	80	HOSTA SP. 'HUSH PUPPIES'	HOSTA	1 GAL		PLANT 18" OC
LM	976	LIRIOPE MUSCARI 'BIG BLUE'	LILY TURF	1 QT		PLANT 18" OC
MB	118	MONARDA 'SCORPION'	BEE BALM	1 GAL		PLANT 18" OC
NR	81	NEPETA RACEMOSA 'BLUE WONDER'	CATMINT	1 GAL		PLANT 18" OC
PA	29	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	1 GAL		PLANT 18" OC
PM	54	PYCNANTHEMUM MUTICUM	BLUNT MOUNTAINMINT	1 GAL	X	PLANT 18" OC
PO	32	POLYGONATUM ODORATUM VAR. PLURIFLORUM 'VARIEGATUM'	SOLOMON'S SEAL	1 GAL		PLANT 18" OC
RH	37	RUDBECKIA HIRTA 'INDIAN SUMMER'	BLACK-EYED SUSAN	1 GAL	X	PLANT 18" OC
SSG	47	SOLIDAGO SPHACELATA 'GOLDEN FLEECE'	GOLDENROD	1 GAL	X	PLANT 18" OC
		ORNAMENTAL GRASS				
CA	44	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL		PLANT 18" OC
MC	186	MUHLENBERGIA CAPILLARIS	PINK MUHLYGRASS	2 GAL		PLANT 18" OC
PAH	500	PENSTEMON ALOPECUROIDES 'HAMELN'	FOUNTAIN GRASS	2 GAL		PLANT 18" OC
JP	96	JUNCUS PATENS 'CARMEN'S GRAY'	GRAY RUSH	2 GAL		PLANT 18" OC

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT



VICINITY MAP
SCALE: 1" = 200'

LS-5

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

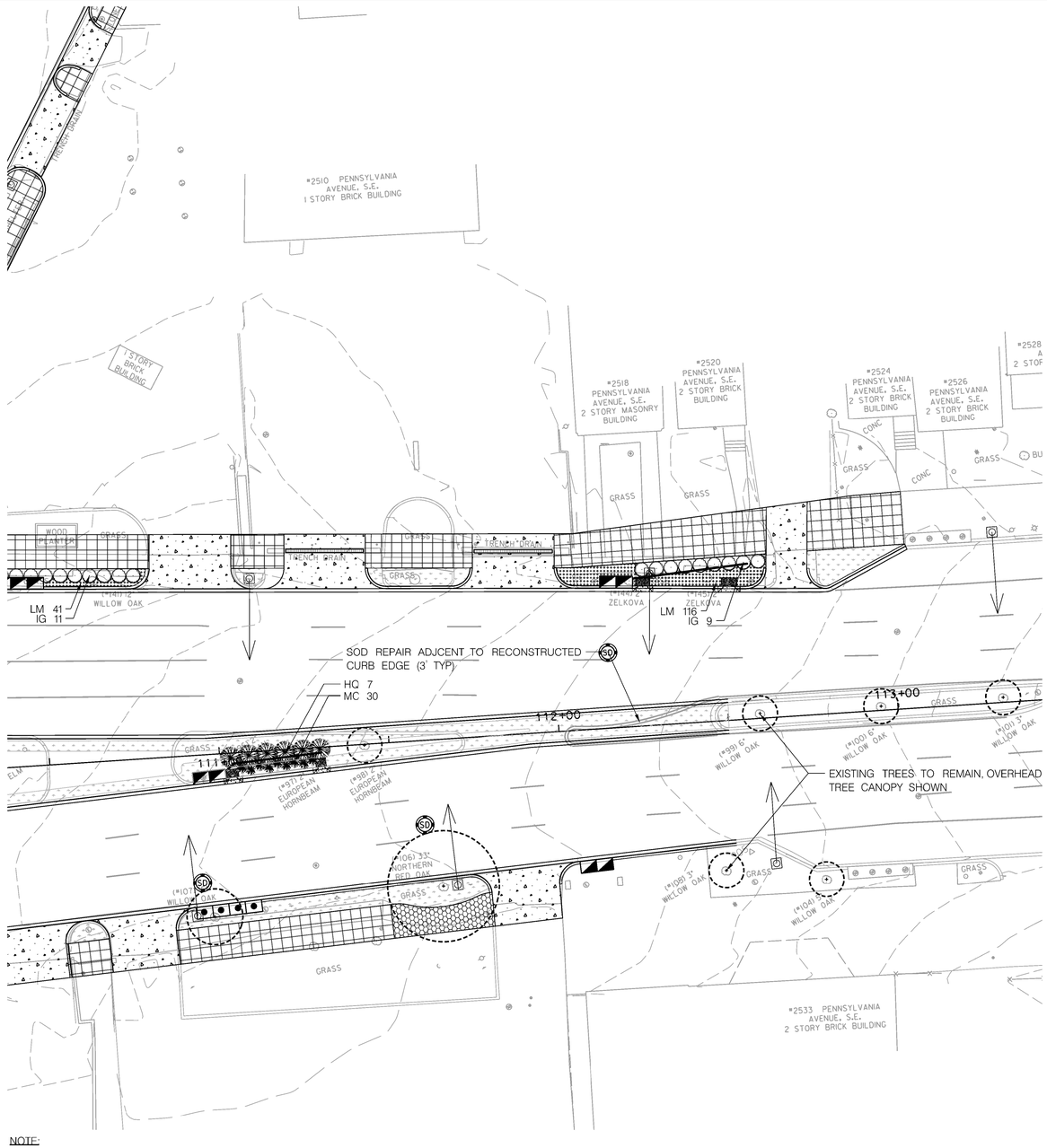
PLANTING PLAN C

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 147 OF 197

S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P005_LANDSCAPE PLAN C.dgn
Wednesday, September 19, 2018 AT 10:26 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	148	197



NOTE:

- SEE HARDSCAPE PLAN FOR PAVING NOTES, PATTERN, AND LAYOUT
- SEE STREET TREE PLAN FOR STRUCTURAL SOIL CALCULATION AND EXTENTS
- SEE FURNITURE PLAN FOR FURNITURE LOCATIONS
- SEE DETAIL SHEETS FOR RETAINING WALL SECTION DETAILS AND SPECIFICATION
- TREE PLANTING SHALL COMPLY WITH THE CURRENT VERSION OF THE DISTRICT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES AND STANDARD DRAWINGS NO. 611.18 AND 611.19. DECIDUOUS TREES SHALL ONLY BE PLANTED BETWEEN OCTOBER 15 AND MAY 1 AS PER THE SPRING AND FALL PLANTING SEASON DATES.
- PEAT MOSS IS NOT ALLOWED FOR USE AS A SOIL AMENDMENT.
- TREE STAKING SHALL BE AS PER SECTION 608.02 (2013 DDOT STANDARD SPECIFICATIONS.) ONLY 2 STAKES SHALL BE INSTALLED WITH ARBOR TIES. DETAIL AND SPECIFICATION SHALL BE PROVIDED BY UFA.
- DO NOT PLANT GRASS/SOD WITHIN 4 FT. OF THE ROOT FLARE OF A TREE. FINISH THIS AREA OFF WITH A 2-3" LAYER OF MULCH, BUT DO NOT PLACE UP AGAINST OR MOUND AROUND ROOT FLARE.
- CONTRACTOR SHALL CONTACT DUFF MCCULLY AT DUFF.MCCULLY@DC.GOV WHEN THE TREES ARE READY TO BE PLANTED, PROVIDING AT LEAST 48 HOURS' NOTICE.

- THERE ARE EXISTING MATURE TREES ALONG THESE STREETS. UNLESS OTHERWISE NOTED, ALL EXISTING TREES SHALL BE PRESERVED IN PLACE ACCORDING TO DDOT STANDARD SPECIFICATION 107.12 TREE PROTECTION AND REPLACEMENT. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL WHILE WORKING AROUND THESE MATURE TREES AND IS LIABLE IN FIXED LIQUIDATED DAMAGES PER 107.12-B.8.
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- DDOT STANDARD SPECIFICATIONS 608 TREES, SHRUBS, VINES AND GROUND COVER, SECTION 608.02, C., 14 CALLS FOR A 2-YEAR WARRANTY. WATERING SHALL BE PART OF THE CONTRACTOR'S STANDARD WARRANTY.

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

TREE SYMBOL LEGEND

- KOELREUTERIA PANICULATE
- MAGNOLIA VIRGINIANA 'JIM WILSON'
- NYSSA SYLVATICA WILDFIRE
- QUERCUS BICOLOR
- QUERCUS PHELLOS
- EXISTING TREE TO REMAIN

SHRUB SYMBOL LEGEND

- CORNUS SERICEA 'FARROW'
- HYDRANGEA ARBORESCENS
- HYDRANGEA QUERCIFOLIA
- ILEX GLABRA 'COMPACTA'
- ILEX VOMITORIA 'CONDEAUX'

PERENNIAL SYMBOL LEGEND cont.

- PROPOSED SOD AREA
- SOLIDAGO SPHACELATA 'GOLDEN FLEECE'

ORNAMENTAL GRASS SYMBOL LEGEND

- CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'
- MUHLENBERGIA CAPILLARIS
- PENSTEMON ALOPECUROIDES 'HAMELN'
- JUNCUS PATENS 'CARMEN'S GRAY'

PERENNIAL SYMBOL LEGEND

- ASTILBE CHINENSIS VAR. PUMILA
- AMSONIA HUBRICHTII
- SYMPHYOTRICHUM NOVAE-ANGLIAE 'ANDENKEN AN ALMA PÖTSCHKE'
- ECHINACEA PURPUREA
- HOSTA SP. 'HUSH PUPPIES'
- LIRIOPE MUSCARI 'BIG BLUE'
- MONARDA 'SCORPION'
- NEPETA RACEMOSA 'BLUE WONDER'
- PEROVSKIA ATRIPLICIFOLIA
- PYCNANTHEMUM MUTICUM
- POLYGONATUM ODORATUM VAR. PLURIFLORUM 'VARIEGATUM'
- RUDBECKIA HIRTA 'INDIAN SUMMER'

UNDERDRAIN PIPE

PLANT SCHEDULE

CODE	QTY.	BOTNICAL NAME	COMMON NAME	SIZE	NATIVE	NOTES
TREES						
KP	5	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	8'-10'		SEE PLAN FOR LOCATION
MV	4	MAGNOLIA VIRGINIANA 'JIM WILSON'	SWEET BAY MAGNOLIA	8'-10'	X	SEE PLAN FOR LOCATION
NS	1	NYSSA SYLVATICA WILDFIRE	BLACK GUM	8'-10'	X	SEE PLAN FOR LOCATION
QB	2	QUERCUS BICOLOR	SWAMP WHITE OAK	8'-10'	X	SEE PLAN FOR LOCATION
QP	27	QUERCUS PHELLOS	WILLOW OAK	8'-10'	X	SEE PLAN FOR LOCATION
SHRUBS						
CS	197	CORNUS SERICEA 'FARROW'	RED TWIG DOGWOOD	5 GAL	X	PLANT 3' OC
HA	34	HYDRANGEA ARBORESCENS	SMOOTH HYDRANGEA	3 GAL	X	PLANT 3' OC
HQ	31	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	3 GAL	X	PLANT 5' OC
IG	76	ILEX GLABRA 'COMPACTA'	INKBERRY	3 GAL	X	PLANT 4' OC
IV	48	ILEX VOMITORIA 'CONDEAUX'	YAUPON HOLLY	3 GAL	X	PLANT 3' OC
PERENNIALS						
AC	46	ASTILBE CHINENSIS VAR. PUMILA	CHINESE ASTILBE	1 GAL		PLANT 18" OC
AH	133	AMSONIA HUBRICHTII	BLUE STAR	1 GAL	X	PLANT 18" OC
AN	31	ASTER NOVAE-ANGLIAE 'ALMA PÖTSCHKE'	NEW ENGLAND ASTER	1 GAL	X	PLANT 18" OC
EP	75	ECHINACEA PURPUREA	CONEFLOWER	1 GAL	X	PLANT 18" OC
HSH	80	HOSTA SP. 'HUSH PUPPIES'	HOSTA	1 GAL		PLANT 18" OC
LM	976	LIRIOPE MUSCARI 'BIG BLUE'	LILY TURF	1 QT		PLANT 18" OC
MB	118	MONARDA 'SCORPION'	BEE BALM	1 GAL		PLANT 18" OC
NR	81	NEPETA RACEMOSA 'BLUE WONDER'	CATMINT	1 GAL		PLANT 18" OC
PA	29	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	1 GAL		PLANT 18" OC
PM	54	PYCNANTHEMUM MUTICUM	BLUNT MOUNTAINMINT	1 GAL	X	PLANT 18" OC
PO	32	POLYGONATUM ODORATUM VAR. PLURIFLORUM 'VARIEGATUM'	SOLOMON'S SEAL	1 GAL		PLANT 18" OC
RH	37	RUDBECKIA HIRTA 'INDIAN SUMMER'	BLACK-EYED SUSAN	1 GAL	X	PLANT 18" OC
SSG	47	SOLIDAGO SPHACELATA 'GOLDEN FLEECE'	GOLDENROD	1 GAL	X	PLANT 18" OC
ORNAMENTAL GRASS						
CA	44	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL		PLANT 18" OC
MC	186	MUHLENBERGIA CAPILLARIS	PINK MUHLYGRASS	2 GAL		PLANT 18" OC
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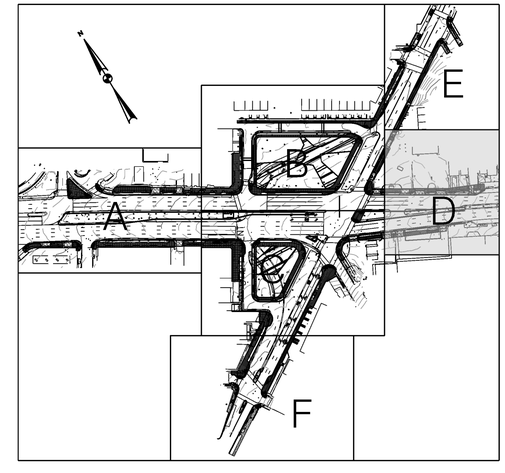

VICINITY MAP
SCALE: 1" = 200'

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

LS-6

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

PLANTING PLAN D

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 148 OF 197

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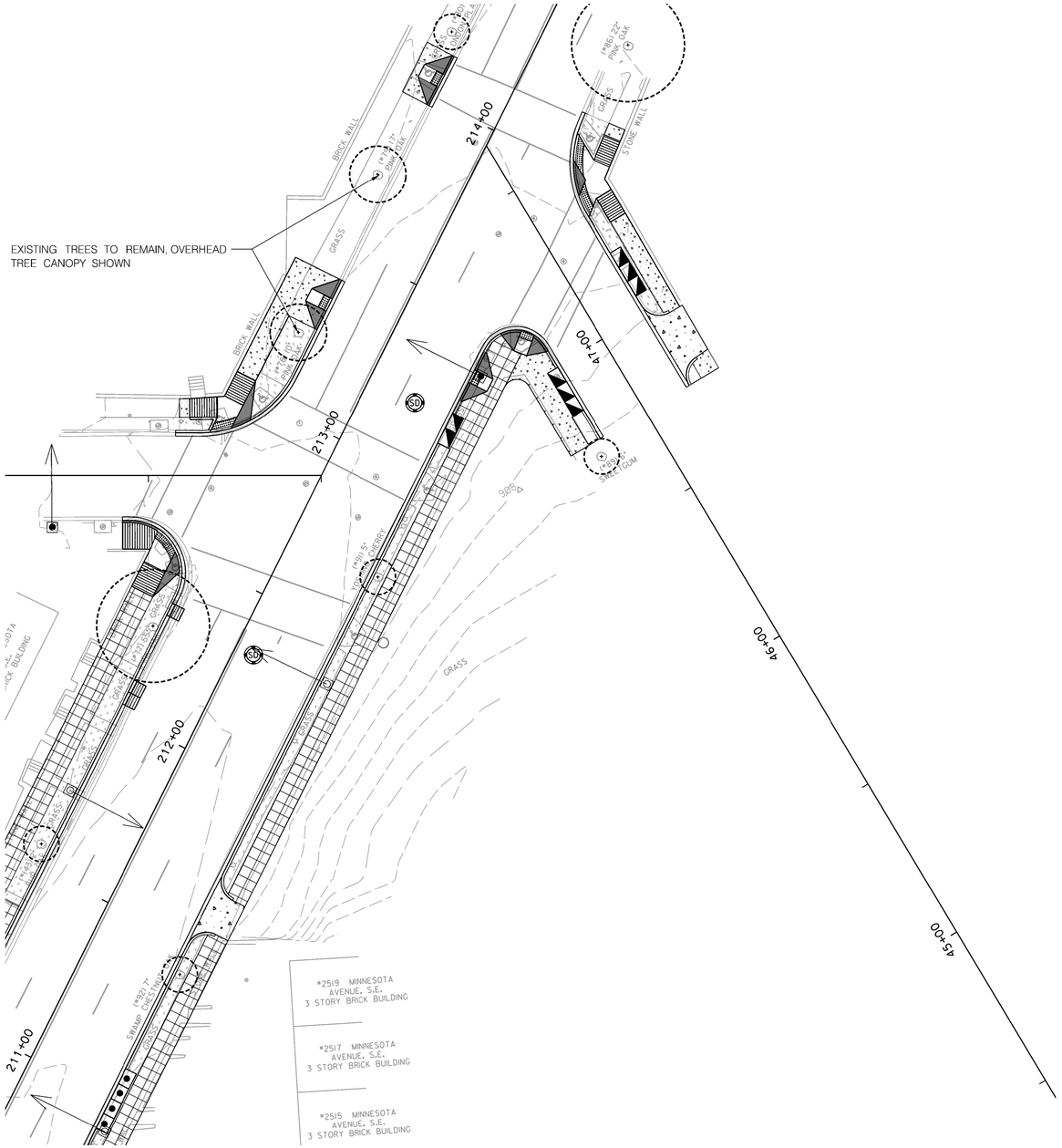
Wednesday, September 19, 2018 AT 11:36 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	149	197



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COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

TREE SYMBOL LEGEND

- KOELREUTERIA PANICULATE
- MAGNOLIA VIRGINIANA 'JIM WILSON'
- NYSSA SYLVATICA WILDFIRE
- QUERCUS BICOLOR
- QUERCUS PHELLOS
- EXISITNG TREE TO REMAIN

SHRUB SYMBOL LEGEND

- CORNUS SERICEA 'FARROW'
- HYDRANGEA ARBORESCENS
- HYDRANGEA QUERCIFOLIA
- ILEX GLABRA 'COMPACTA'
- ILEX VOMITORIA 'CONDEAUX'

PERENNIAL SYMBOL LEGEND cont.

- PROPOSED SOD AREA
- SOLIDAGO SPHACELATA 'GOLDEN FLEECE'

ORNAMENTAL GRASS SYMBOL LEGEND

- CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'
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UNDERDRAIN PIPE

PLANT SCHEDULE

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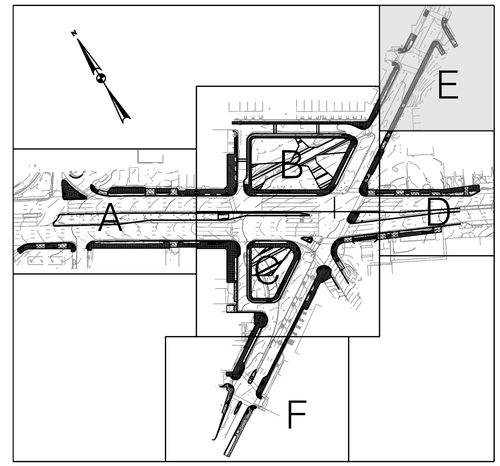

VICINITY MAP
SCALE: 1" = 200'

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

LS-7

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

PLANTING PLAN E

PROJECT ENG	K.M.
DESIGNED BY	B.R./T.F.
CHECKED BY	B.R.
DRAWN BY	T.F.
PROJECT MGR	K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 149 OF 197

NO	DESCRIPTION	NAME	DATE

REVISIONS

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

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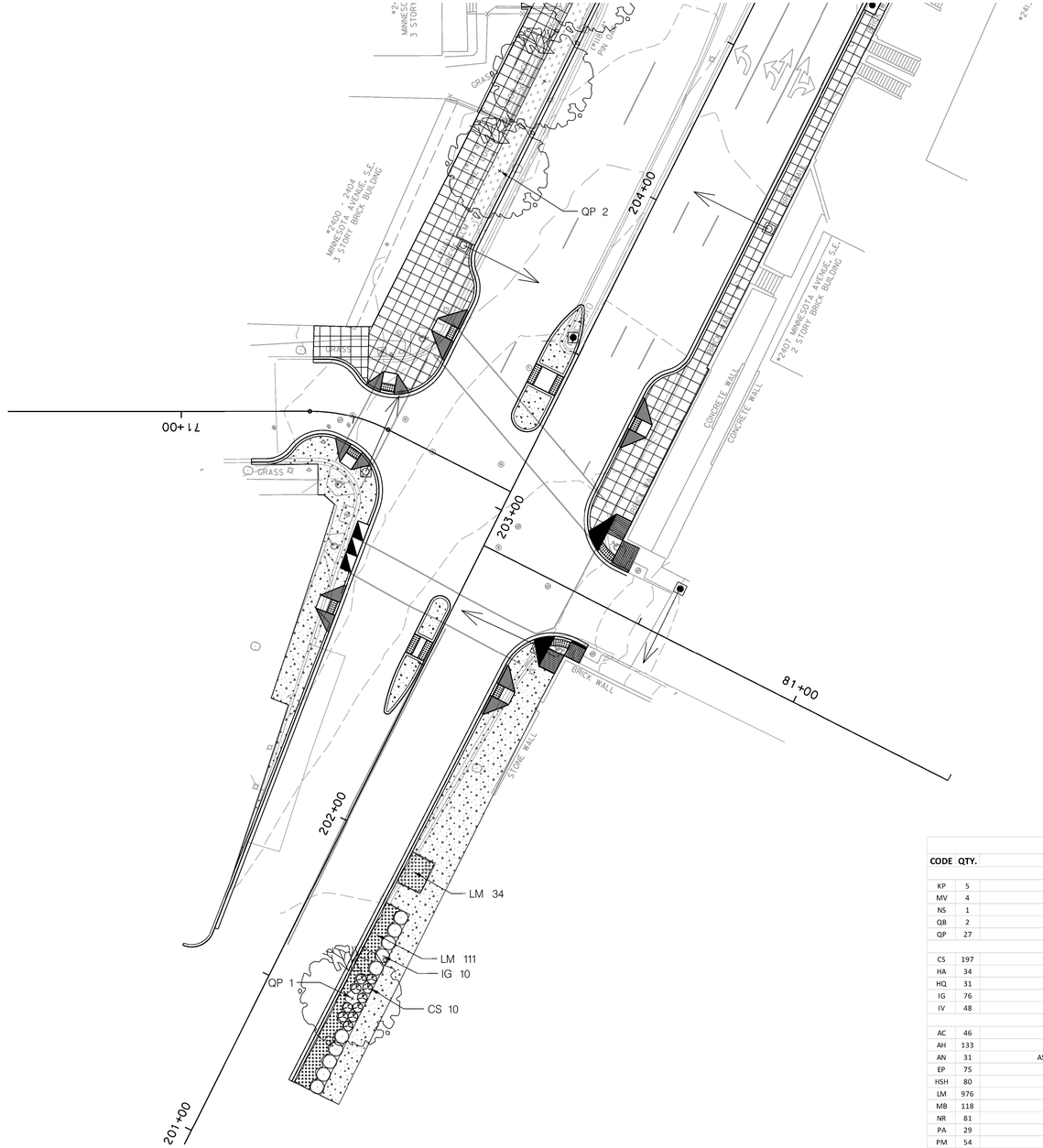
Wednesday, September 19, 2018 AT 11:38 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	150	197



TREE SYMBOL LEGEND

- KOELREUTERIA PANICULATE
- MAGNOLIA VIRGINIANA 'JIM WILSON'
- NYSSA SYLVATICA WILDFIRE
- QUERCUS BICOLOR
- QUERCUS PHELLOS
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SHRUB SYMBOL LEGEND

- CORNUS SERICEA 'FARROW'
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PERENNIAL SYMBOL LEGEND cont.

- PROPOSED SOD AREA
- SOLIDAGO SPHACELATA 'GOLDEN FLEECE'

UNDERDRAIN PIPE

ORNAMENTAL GRASS SYMBOL LEGEND

- CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'
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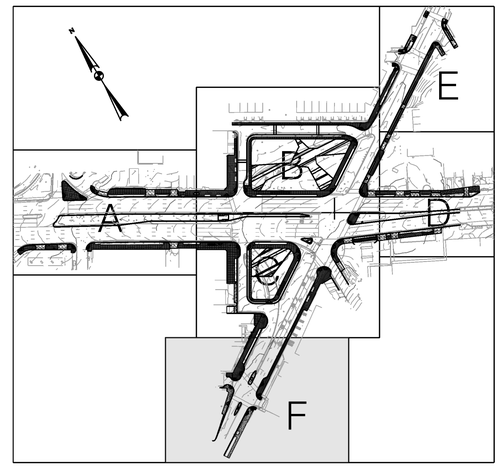

VICINITY MAP
SCALE: 1" = 200'

PLANT SCHEDULE

CODE	QTY.	BOTNICAL NAME	COMMON NAME	SIZE	NATIVE	NOTES
		TREES				
KP	5	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	8'-10'		SEE PLAN FOR LOCATION
MV	4	MAGNOLIA VIRGINIANA 'JIM WILSON'	SWEET BAY MAGNOLIA	8'-10'	X	SEE PLAN FOR LOCATION
NS	1	NYSSA SYLVATICA WILDFIRE	BLACK GUM	8'-10'	X	SEE PLAN FOR LOCATION
QB	2	QUERCUS BICOLOR	SWAMP WHITE OAK	8'-10'	X	SEE PLAN FOR LOCATION
QP	27	QUERCUS PHELLOS	WILLOW OAK	8'-10'	X	SEE PLAN FOR LOCATION
		SHRUBS				
CS	197	CORNUS SERICEA 'FARROW'	RED TWIG DOGWOOD	5 GAL	X	PLANT 3' OC
HA	34	HYDRANGEA ARBORESCENS	SMOOTH HYDRANGEA	3 GAL	X	PLANT 3' OC
HQ	31	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	3 GAL	X	PLANT 5' OC
IG	76	ILEX GLABRA 'COMPACTA'	INKBERRY	3 GAL	X	PLANT 4' OC
IV	48	ILEX VOMITORIA 'CONDEAUX'	YAUPON HOLLY	3 GAL	X	PLANT 3' OC
		PERENNIALS				
AC	46	ASTILBE CHINENSIS VAR. PUMILA	CHINESE ASTILBE	1 GAL		PLANT 18" OC
AH	133	AMSONIA HUBRICHTII	BLUE STAR	1 GAL	X	PLANT 18" OC
AN	31	ASTER NOVAE-ANGLIAE 'ALMA PÖTSCHKE'	NEW ENGLAND ASTER	1 GAL	X	PLANT 18" OC
EP	75	ECHINACEA PURPUREA	CONEFLOWER	1 GAL	X	PLANT 18" OC
HSH	80	HOSTA SP. 'HUSH PUPPIES'	HOSTA	1 GAL		PLANT 18" OC
LM	976	LIRIOPE MUSCARI 'BIG BLUE'	LILY TURF	1 QT		PLANT 18" OC
MB	118	MONARDA 'SCORPION'	BEE BALM	1 GAL		PLANT 18" OC
NR	81	NEPETA RACEMOSA 'BLUE WONDER'	CATMINT	1 GAL		PLANT 18" OC
PA	29	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	1 GAL		PLANT 18" OC
PM	54	PYCNANTHEMUM MUTICUM	BLUNT MOUNTAINMINT	1 GAL	X	PLANT 18" OC
PO	32	POLYGONATUM ODORATUM VAR. PLURIFLORUM 'VARIEGATUM'	SOLOMON'S SEAL	1 GAL		PLANT 18" OC
RH	37	RUDBECKIA HIRTA 'INDIAN SUMMER'	BLACK-EYED SUSAN	1 GAL	X	PLANT 18" OC
SSG	47	SOLIDAGO SPHACELATA 'GOLDEN FLEECE'	GOLDENROD	1 GAL	X	PLANT 18" OC
		ORNAMENTAL GRASS				
CA	44	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	2 GAL		PLANT 18" OC
MC	186	MUHLENBERGIA CAPILLARIS	PINK MUHLYGRASS	2 GAL		PLANT 18" OC
PAH	500	PENSTEMON ALOPECUROIDES 'HAMELN'	FOUNTAIN GRASS	2 GAL		PLANT 18" OC
JP	96	JUNCUS PATENS 'CARMEN'S GRAY'	GRAY RUSH	2 GAL		PLANT 18" OC

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

NOTE:

- SEE HARDSCAPE PLAN FOR PAVING NOTES, PATTERN, AND LAYOUT
- SEE STREET TREE PLAN FOR STRUCTURAL SOIL CALCULATION AND EXTENTS
- SEE FURNITURE PLAN FOR FURNITURE LOCATIONS
- SEE DETAIL SHEETS FOR RETAINING WALL SECTION DETAILS AND SPECIFICATION
- TREE PLANTING SHALL COMPLY WITH THE CURRENT VERSION OF THE DISTRICT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES AND STANDARD DRAWINGS NO. 611.18 AND 611.19. DECIDUOUS TREES SHALL ONLY BE PLANTED BETWEEN OCTOBER 15 AND MAY 1 AS PER THE SPRING AND FALL PLANTING SEASON DATES.
- PEAT MOSS IS NOT ALLOWED FOR USE AS A SOIL AMENDMENT.
- TREE STAKING SHALL BE AS PER SECTION 608.02 (2013 DDOT STANDARD SPECIFICATIONS.) ONLY 2 STAKES SHALL BE INSTALLED WITH ARBOR TIES. DETAIL AND SPECIFICATION SHALL BE PROVIDED BY UFA.
- DO NOT PLANT GRASS/SOD WITHIN 4 FT. OF THE ROOT FLARE OF A TREE. FINISH THIS AREA OFF WITH A 2-3" LAYER OF MULCH, BUT DO NOT PLACE UP AGAINST OR MOUND AROUND ROOT FLARE.
- CONTRACTOR SHALL CONTACT DUFF MCCULLY AT DUFF.MCCULLY@DC.GOV WHEN THE TREES ARE READY TO BE PLANTED, PROVIDING AT LEAST 48 HOURS' NOTICE.

- THERE ARE EXISTING MATURE TREES ALONG THESE STREETS. UNLESS OTHERWISE NOTED, ALL EXISTING TREES SHALL BE PRESERVED IN PLACE ACCORDING TO DDOT STANDARD SPECIFICATION 107.12 TREE PROTECTION AND REPLACEMENT. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL WHILE WORKING AROUND THESE MATURE TREES AND IS LIABLE IN FIXED LIQUIDATED DAMAGES PER 107.12-B.8.
- CONTRACTOR SHALL CONTACT THE URBAN FORESTRY ADMINISTRATION AT (202) 671-5133 FOR ALL ISSUES CONCERNING TREES
- DDOT STANDARD SPECIFICATIONS 608 TREES, SHRUBS, VINES AND GROUND COVER, SECTION 608.02, C., 14 CALLS FOR A 2-YEAR WARRANTY. WATERING SHALL BE PART OF THE CONTRACTOR'S STANDARD WARRANTY.

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

SHELADIA ASSOCIATES, INC.
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Development Consultants
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www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-8

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

PLANTING PLAN F

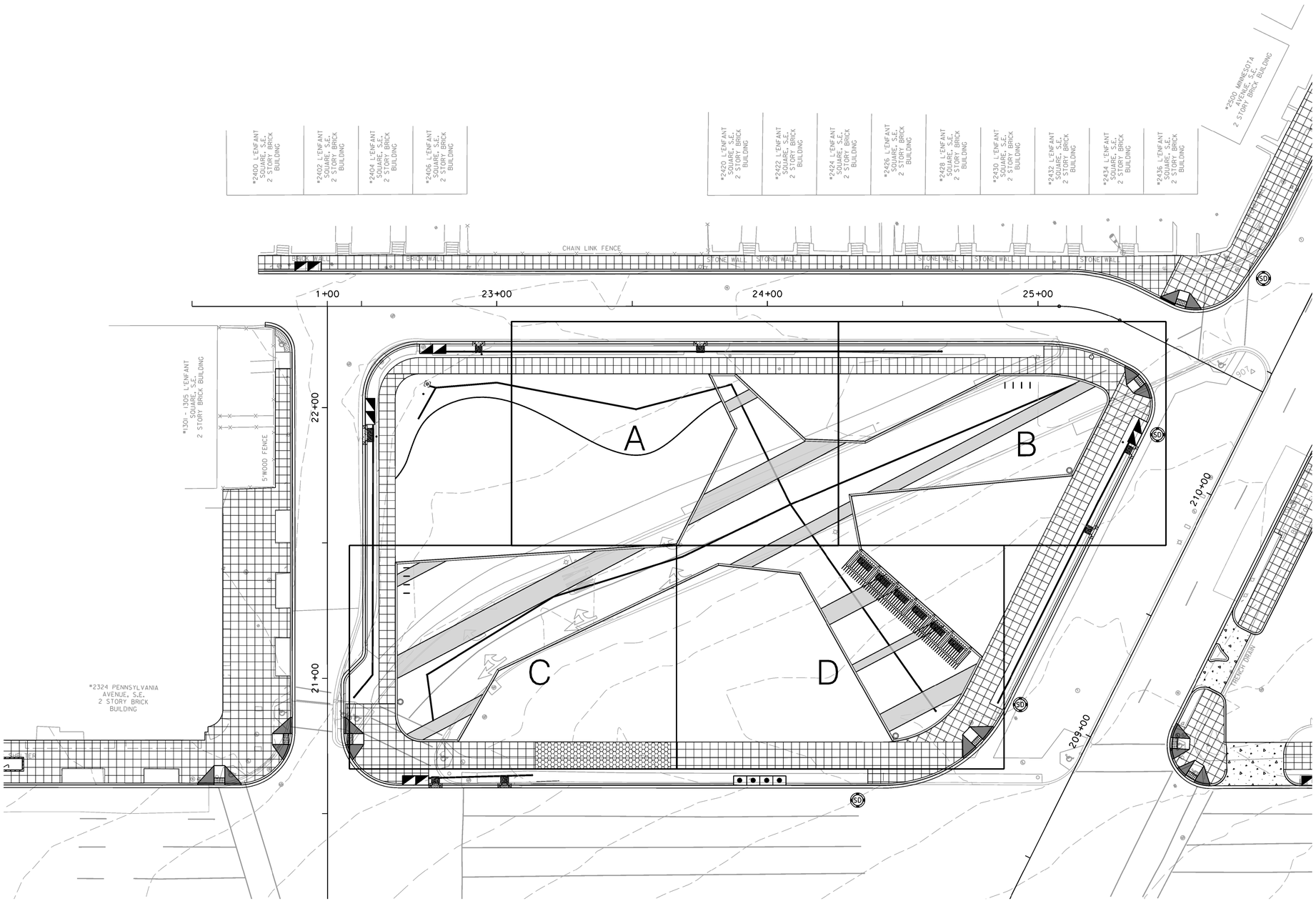
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 150 OF 197

S:\0001-1000\0382 - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P008_LANDSCAPE PLAN F.dgn
Wednesday, September 19, 2018 AT 11:40 AM

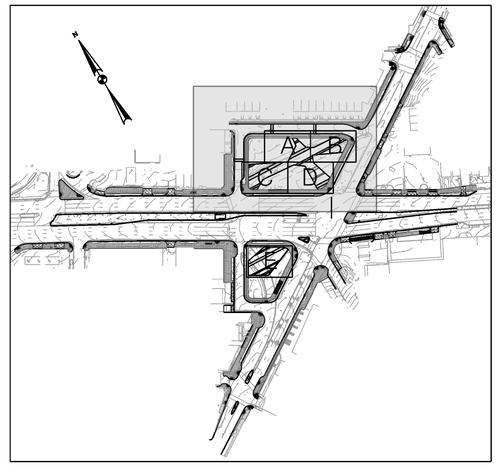
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	151	197



NOTE:
-SEE SHEETS LS-8 THROUGH LS-12 FOR DETAILED HARDSCAPE PLAN

HARDSCAPE SYMBOL LEGEND

	3"x12" AQUALINE FOUNDRY PREMEABLE PAVERS	3-4 LS-22
	3"x12" AQUALINE GRAPHITE PERMEABLE PAVERS	3-4 LS-22
	4 ½"x 9" AQUALINE GRAPHITE PERMEABLE PAVERS	3-4 LS-22
	CORETEN STEEL LANDSCAPE EDGING	1-2 LS-23
	UNDERDRAIN PIPE	



VICINITY MAP
SCALE: 1" = 200'

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

LS-9

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 - WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

PARTIAL PLAN SUBMITAL 100% REVIEW

NORTH SQUARE
HARDSCAPE PLAN OVERALL

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 151 OF 197

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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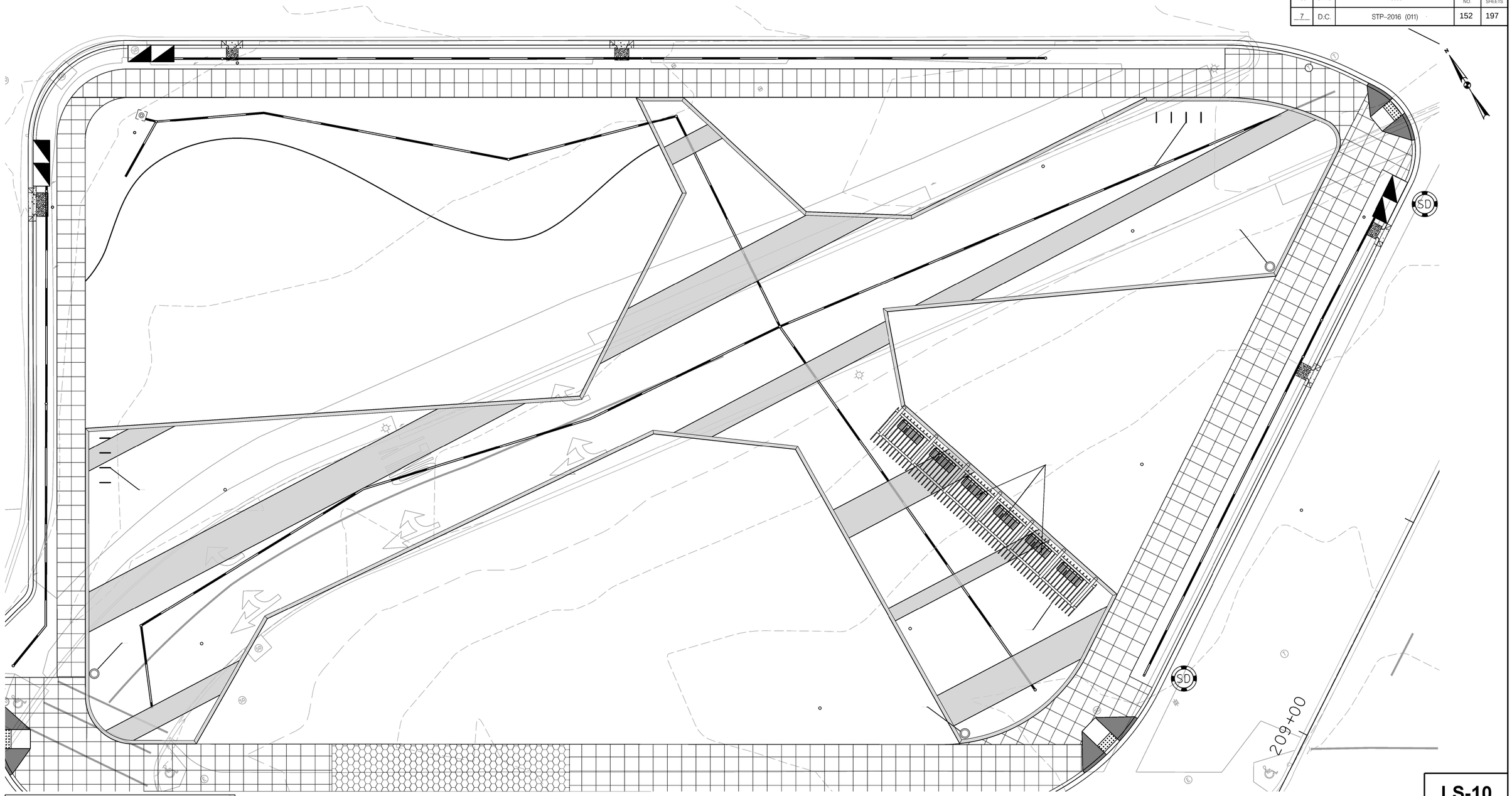
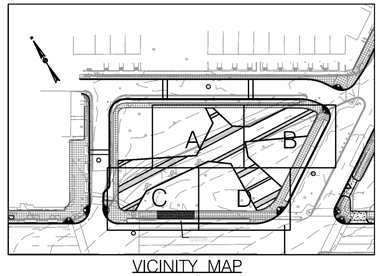
NO	DESCRIPTION	NAME	DATE

REVISIONS

S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P009_HARDSCAPE PLAN OVERALL NORTH.dgn
Wednesday, September 19, 2018 AT 11:41 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	152	197





VICINITY MAP
SCALE: 1" = 100'

NOTE:
-SEE SHEETS LS-8 THROUGH LS-12 FOR DETAILED HARDSCAPE PLAN

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

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
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LANDSCAPE ARCHITECT
9-24-18

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NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-10

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

NORTH SQUARE
HARDSCAPE PLAN LAYOUT

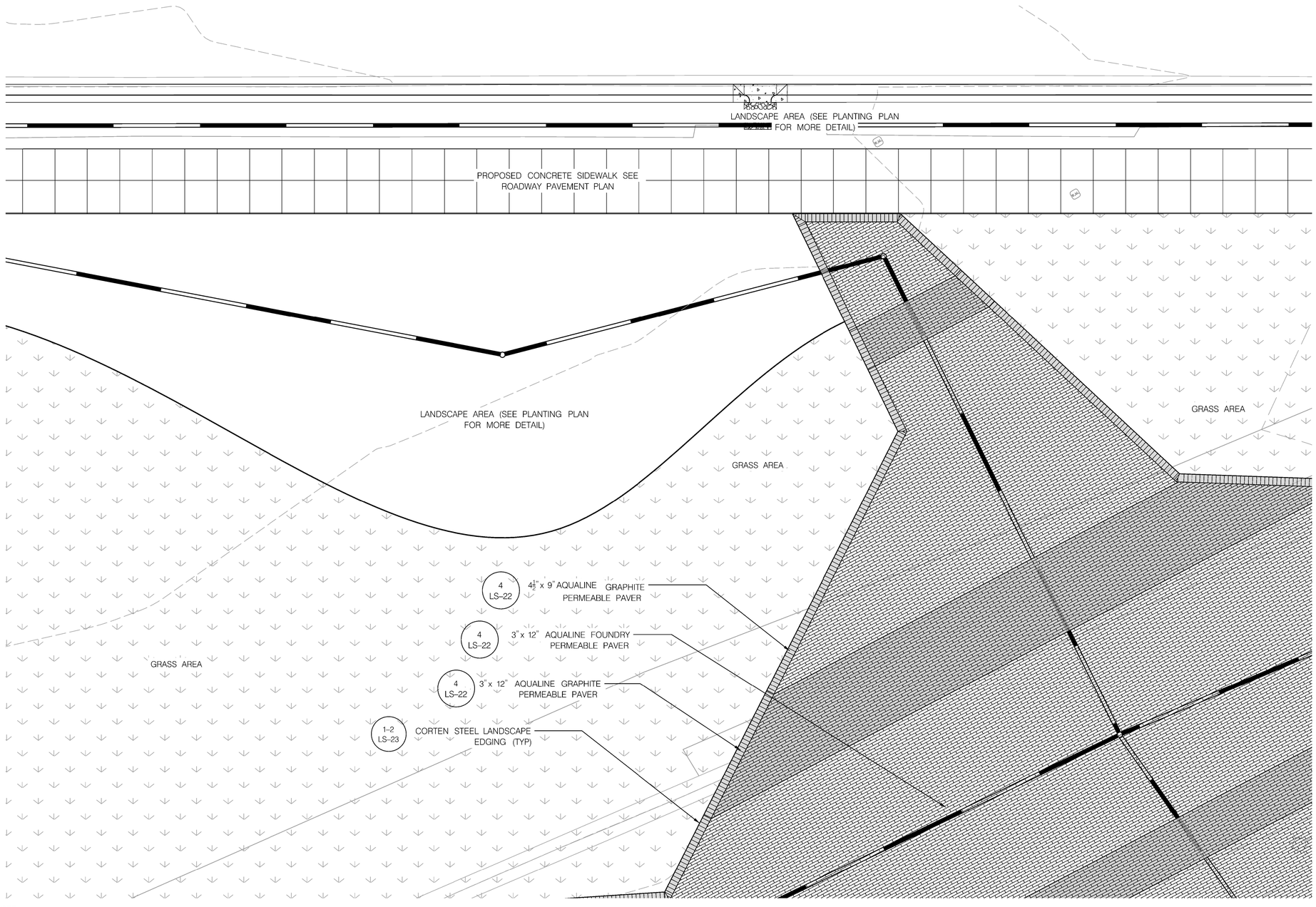
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 152 OF 197

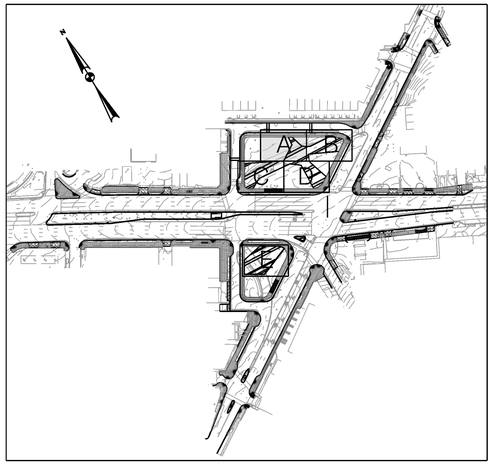
S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P010_HARDSCAPE PLAN 10 SCALE NORTH SQUARE.dgn
Wednesday, September 19, 2018 AT 09:28 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	153	197



HARDSCAPE SYMBOL LEGEND

- 3"x12" AQUALINE FOUNDRY PREMEABLE PAVERS — 3-4 LS-22
- 3"x12" AQUALINE GRAPHITE PERMEABLE PAVERS — 3-4 LS-22
- 4½"x 9" AQUALINE GRAPHITE PERMEABLE PAVERS — 3-4 LS-22
- CORETEN STEEL LANDSCAPE EDGING — 1-2 LS-23
- UNDERDRAIN PIPE



VICINITY MAP
SCALE: 1" = 200'

NOTE:
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- LANDSCAPE SHALL BE PLACED ALONG EDGE OF THE PAVER PLAZA BETWEEN PLANTED OR GRASS AREA ONLY, DO NOT PLACE EDGE WHERE PAVERS ARE ADJCENT TO CONCRETE OR FLEXIBLE SIDEWALK
- SEE ROADWAY PAVEMENT PLANS (HD-1 TO HD-9) FOR PCC AND FLEXIBLE SIDEWALK AREAS AND DETAILS

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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

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NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-11

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

NORTH SQUARE
HARDSCAPE PLAN A

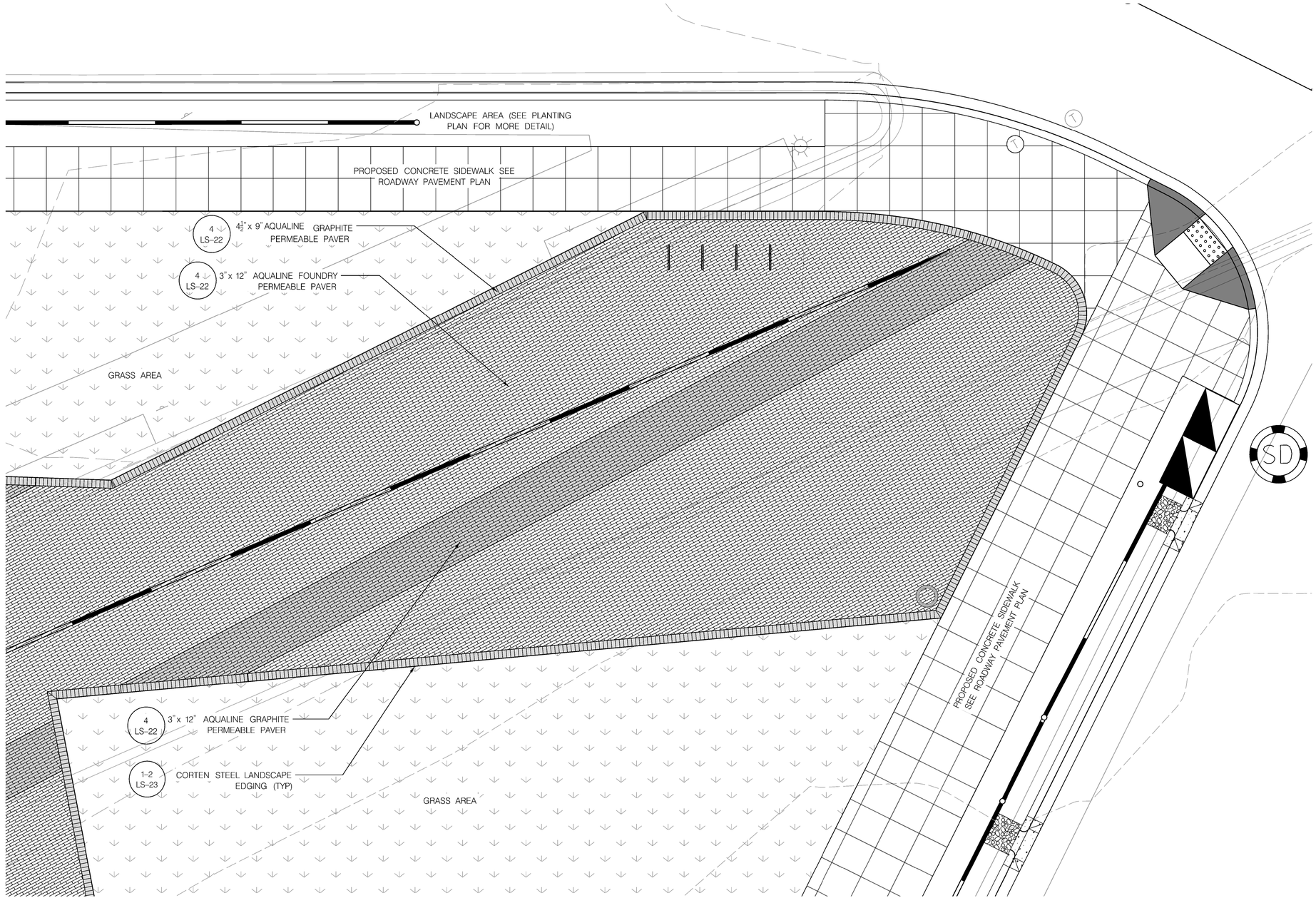
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 153 OF 197

S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P011_HARDSCAPE PLAN A.dgn
Wednesday, September 19, 2018 AT 11:43 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	154	197



HARDSCAPE SYMBOL LEGEND

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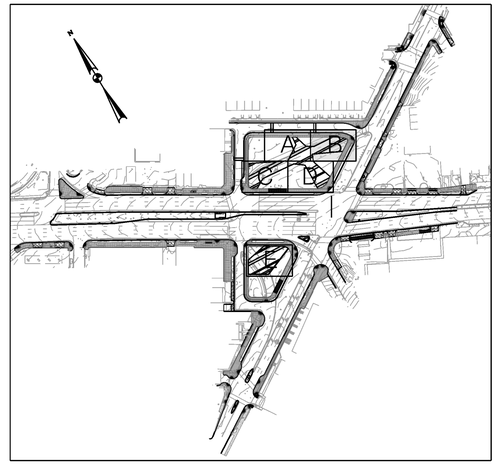
- CORETEN STEEL LANDSCAPE EDGING — 1-2 LS-23
- UNDERDRAIN PIPE



VICINITY MAP
SCALE: 1" = 200'

NOTE:
- PERMEABLE PAVERS SHALL BE PLACED TO THE NEAREST WHOLE PAVER, PAVERS SHALL NOT BE CUT LONGITUDINALLY
- LANDSCAPE SHALL BE PLACED ALONG EDGE OF THE PAVER PLAZA BETWEEN PLANTED OR GRASS AREA ONLY, DO NOT PLACE EDGE WHERE PAVERS ARE ADJCENT TO CONCRETE OR FLEXIBLE SIDEWALK
- SEE ROADWAY PAVEMENT PLANS (HD-1 TO HD-9) FOR PCC AND FLEXIBLE SIDEWALK AREAS AND DETAILS

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

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-12

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW
NORTH SQUARE
HARDSCAPE PLAN B

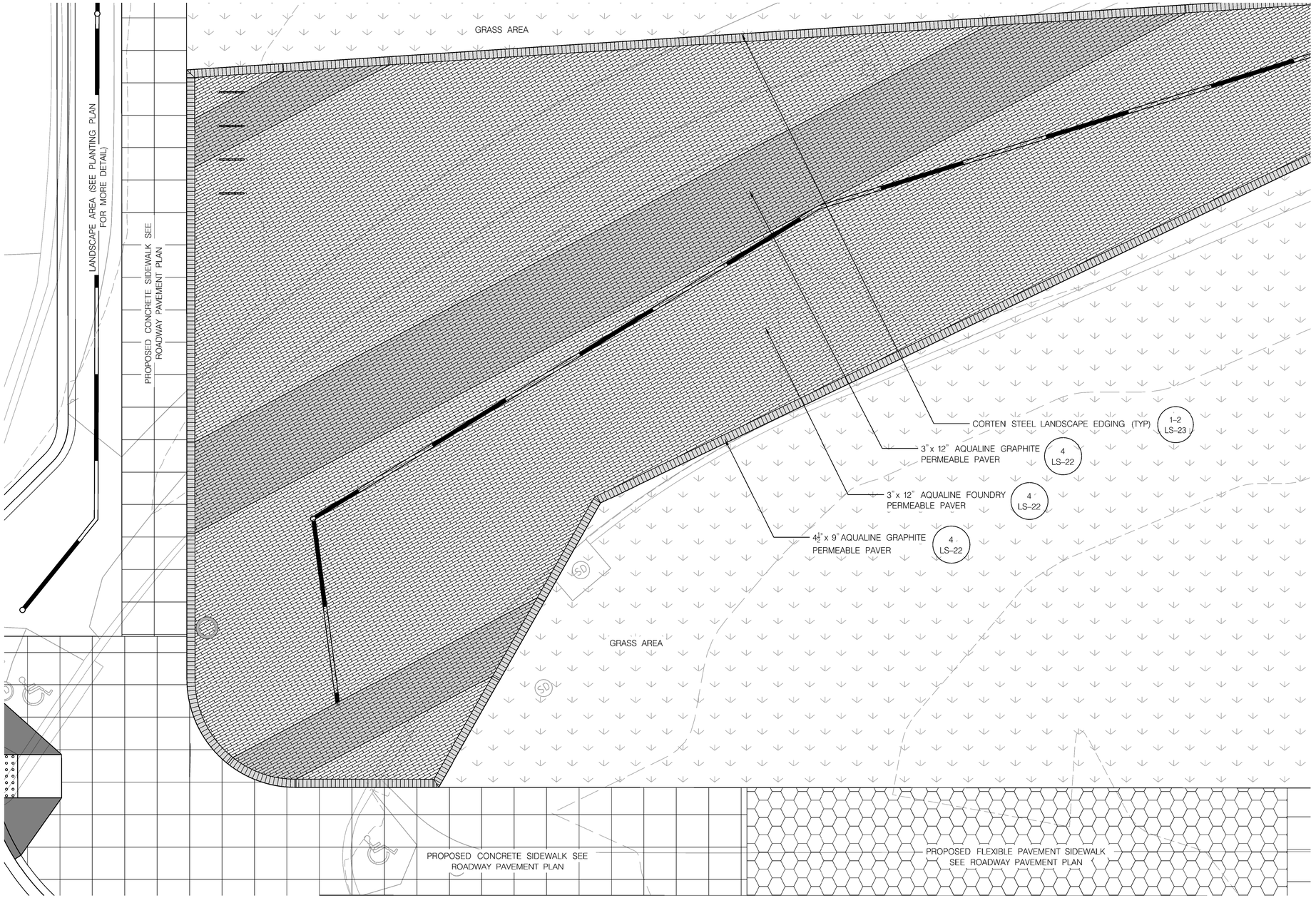
PROJECT ENG. K.M.
DESIGNED BY B.R. / T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 154 OF 197

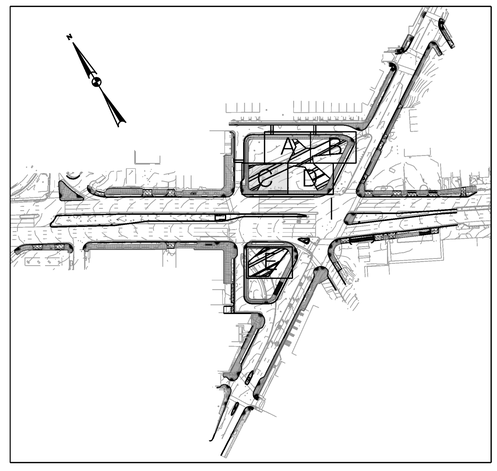
S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P012_HARDSCAPE PLAN B.dgn
Wednesday, September 19, 2018 AT 11:44 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	155	197



HARDSCAPE SYMBOL LEGEND

- 3"x12" AQUALINE FOUNDRY PREMEABLE PAVERS — 3-4 LS-22
- 3"x12" AQUALINE GRAPHITE PERMEABLE PAVERS — 3-4 LS-22
- 4 ½"x 9" AQUALINE GRAPHITE PERMEABLE PAVERS — 3-4 LS-22
- CORETEN STEEL LANDSCAPE EDGING — 1-2 LS-23
- UNDERDRAIN PIPE



VICINITY MAP
SCALE: 1" = 200'

NOTE:
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- SEE ROADWAY PAVEMENT PLANS (HD-1 TO HD-9) FOR PCC AND FLEXIBLE SIDEWALK AREAS AND DETAILS

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

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
LANDSCAPE ARCHITECT
9-24-18

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Engineers, Architects Development Consultants
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NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-13

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

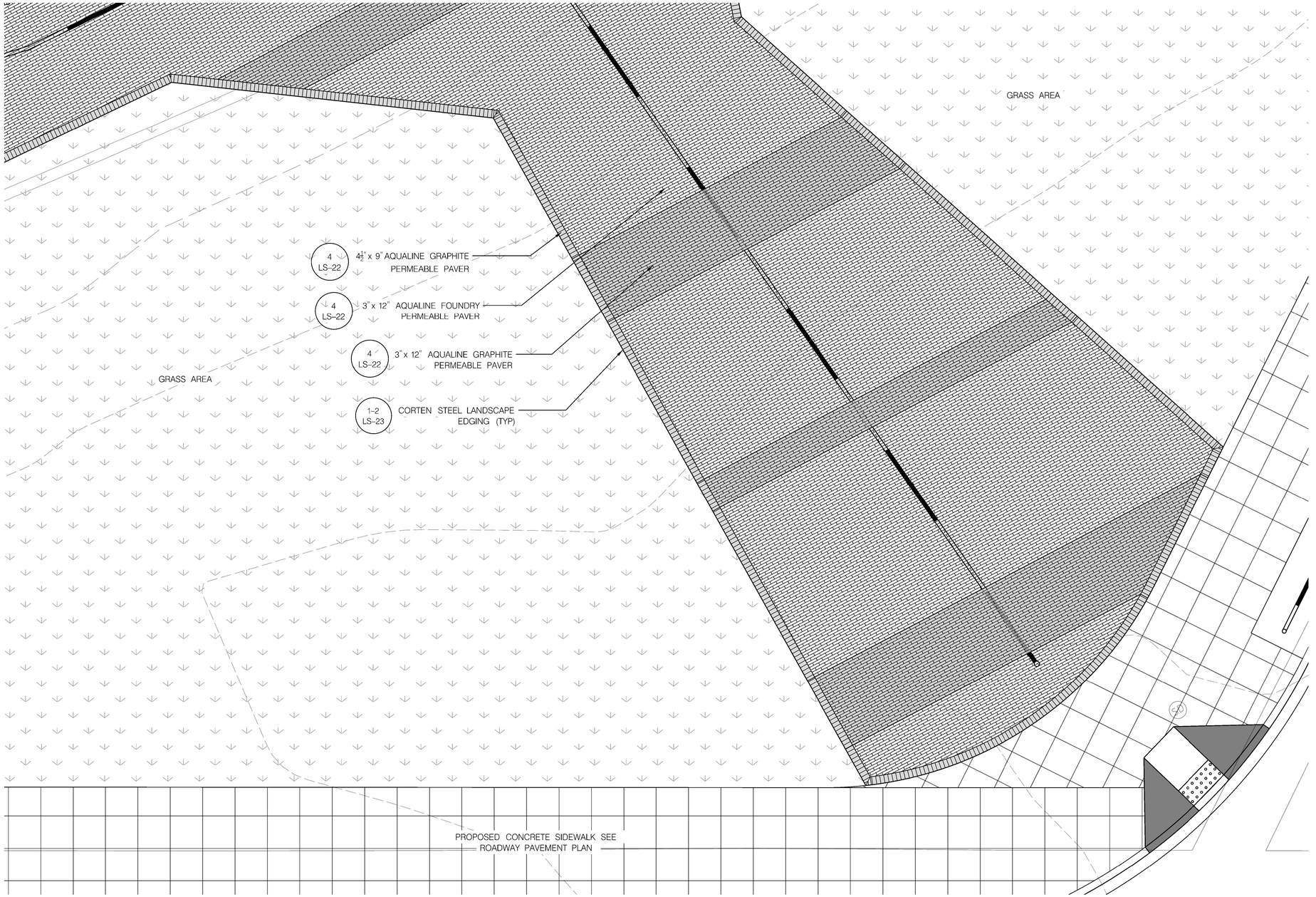
PARTIAL PLAN SUBMITAL 100% REVIEW
NORTH SQUARE
HARDSCAPE PLAN C

PROJECT ENG. K. M.
DESIGNED BY B.R. / T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K. M.

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 155 OF 197

S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\PLD-P013_HARDSCAPE PLAN C.dgn
Wednesday, September 19, 2018 AT 11:46 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	156	197



HARDSCAPE SYMBOL LEGEND

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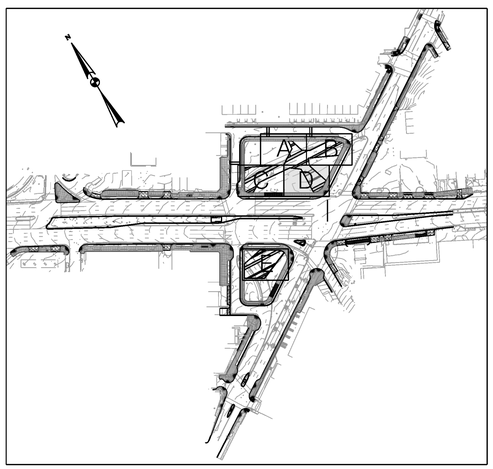
- 3"x12" AQUALINE GRAPHITE PERMEABLE PAVERS — 3-4 LS-22
- 4 ½"x 9" AQUALINE GRAPHITE PERMEABLE PAVERS — 3-4 LS-22
- CORETEN STEEL LANDSCAPE EDGING — 1-2 LS-23
- UNDERDRAIN PIPE



VICINITY MAP
SCALE: 1" = 200'

NOTE:
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- SEE ROADWAY PAVEMENT PLANS (HD-1 TO HD-9) FOR PCC AND FLEXIBLE SIDEWALK AREAS AND DETAILS

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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

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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW
NORTH SQUARE
HARDSCAPE PLAN D

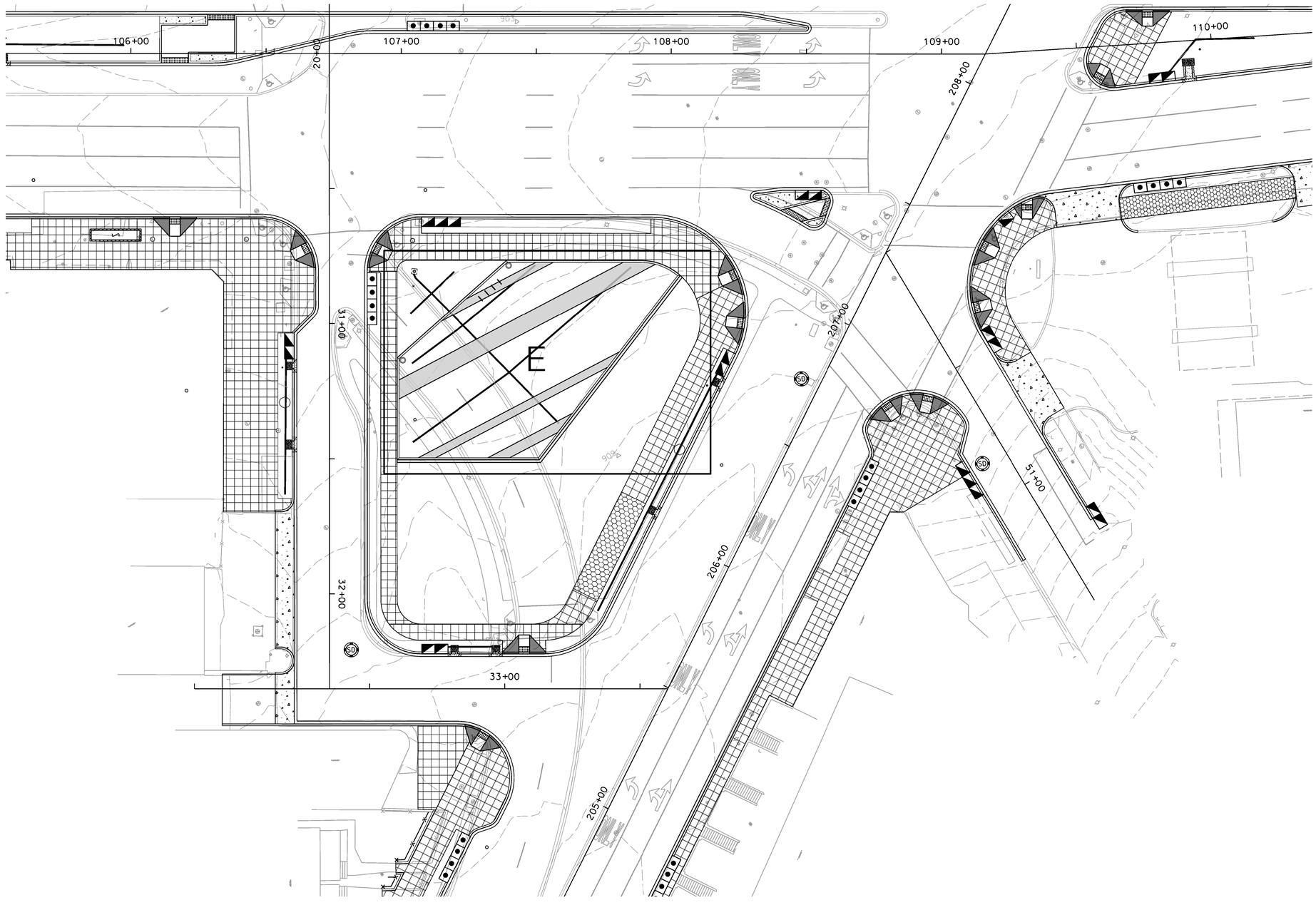
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 156 OF 197

LS-14

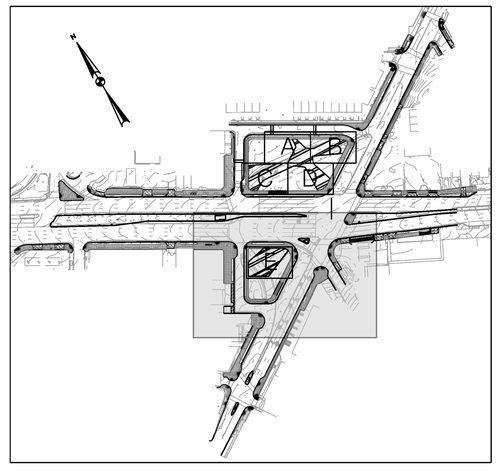
S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P014 HARDSCAPE PLAN D.dgn
Wednesday, September 19, 2018 AT 11:48 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	157	197



HARDSCAPE SYMBOL LEGEND

- 3"x12" AQUALINE FOUNDRY PREMEABLE PAVERS (3-4 LS-22)
- 3"x12" AQUALINE GRAPHITE PERMEABLE PAVERS (3-4 LS-22)
- 4 ½"x 9" AQUALINE GRAPHITE PERMEABLE PAVERS (3-4 LS-22)
- CORETEN STEEL LANDSCAPE EDGING (1-2 LS-23)
- UNDERDRAIN



VICINITY MAP
SCALE: 1" = 200'

NOTE:
-SEE SHEETS LS-8 THROUGH LS-12 FOR DETAILED HARDSCAPE PLAN

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

BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
COMMONWEALTH OF VIRGINIA
LANDSCAPE ARCHITECT

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-15

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

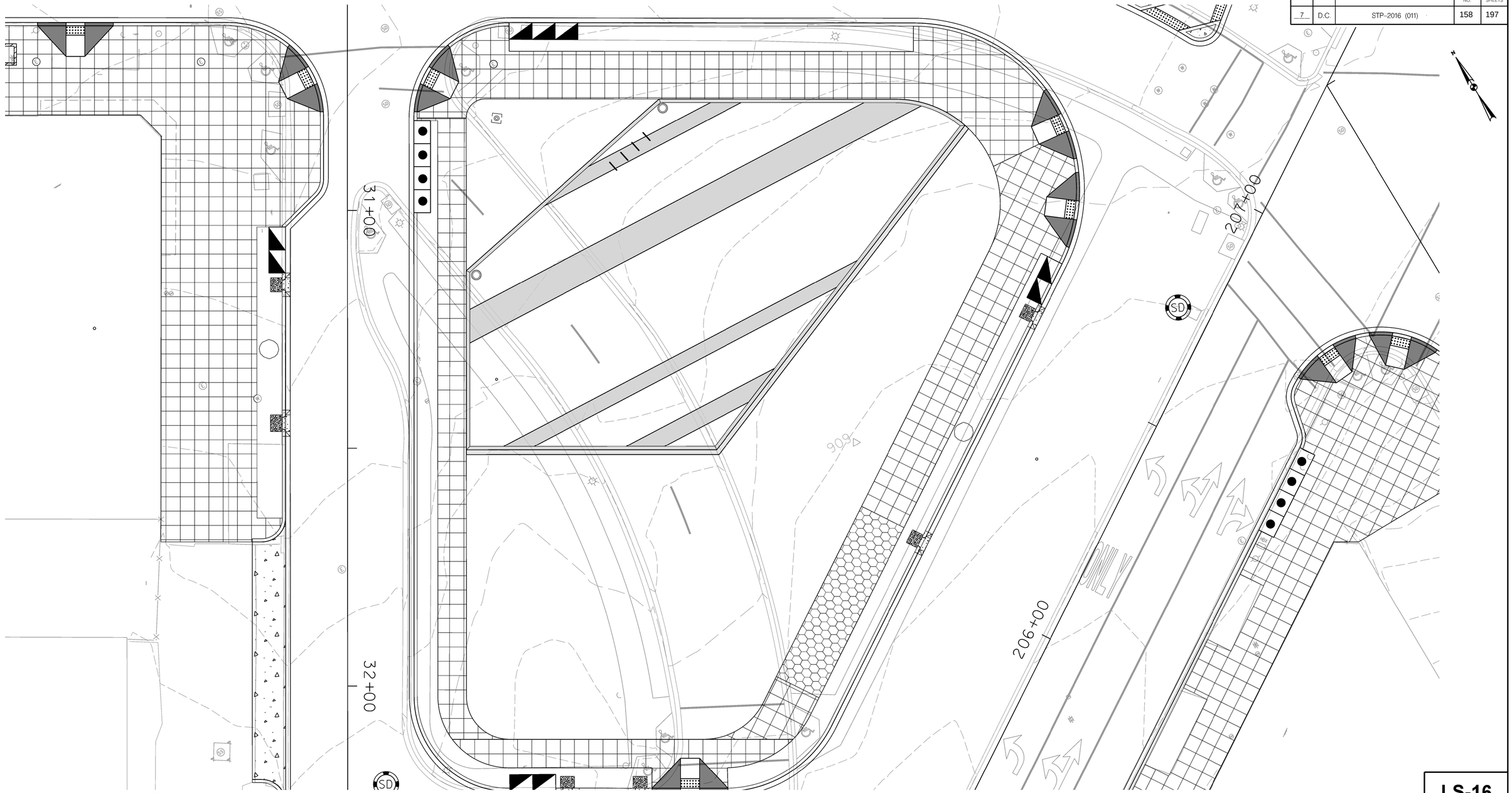
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

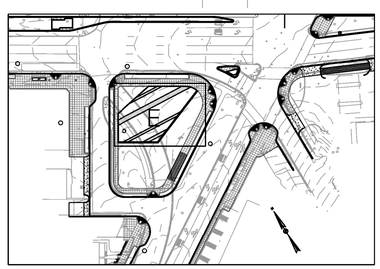
PARTIAL PLAN SUBMITAL 100% REVIEW
SOUTH SQUARE
HARDSCAPE PLAN OVERALL

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 157 OF 197

S:\0001-1000\0382A - Penn. Ave & Minn. Ave. SE\cadd\construction documents\Landscape Arch Files\pLD-P015_HARDSCAPE PLAN OVERALL SOUTH.dgn
Wednesday, September 19, 2018 AT 11:50 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	158	197





VICINITY MAP
SCALE: 1" = 100'

NOTE:
-SEE SHEETS LS-8 THROUGH LS-12 FOR DETAILED HARDSCAPE PLAN

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

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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15825 Shady Grove Road, Rockville, MD. 20850
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NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-16

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW
SOUTH SQUARE
HARDSCAPE PLAN LAYOUT

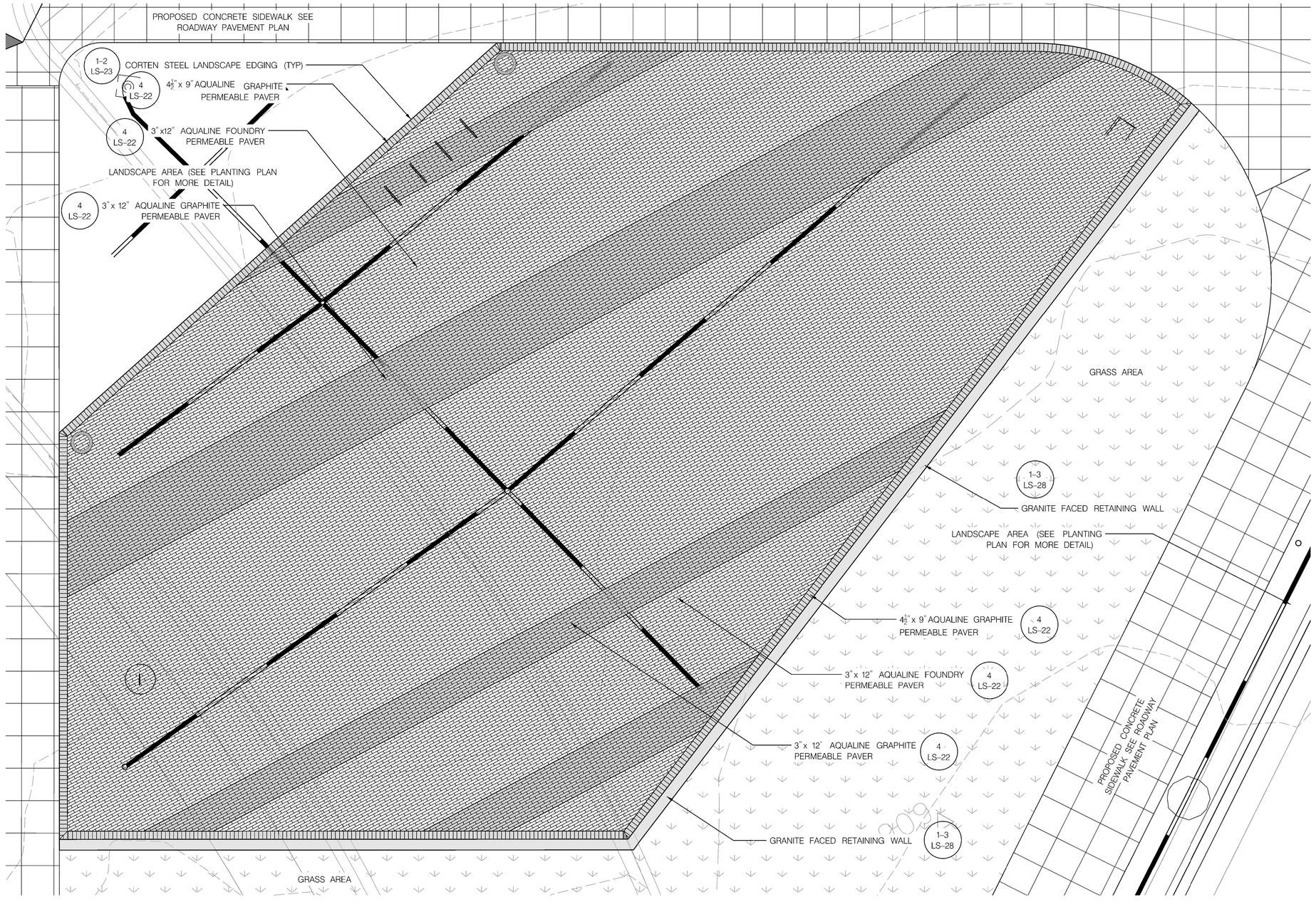
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 158 OF 197

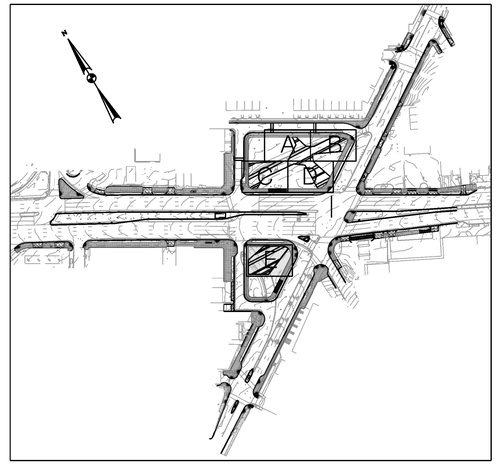
S:\0001-1000\0382A - Penn Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P016_HARDSCAPE PLAN 10 SCALE SOUTH SQUARE.dgn
Wednesday, September 19, 2018 AT 09:22 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	159	197



HARDSCAPE SYMBOL LEGEND

3"x12" AQUALINE FOUNDRY PREMEABLE PAVERS	3-4 LS-22
3"x12" AQUALINE GRAPHITE PERMEABLE PAVERS	3-4 LS-22
4½"x 9" AQUALINE GRAPHITE PERMEABLE PAVERS	3-4 LS-22
CORETEN STEEL LANDSCAPE EDGING	1-2 LS-23
UNDERDRAIN	



VICINITY MAP
SCALE: 1" = 200'

NOTE:
- PERMEABLE PAVERS SHALL BE PLACED TO THE NEAREST WHOLE PAVER, PAVERS SHALL NOT BE CUT LONGITUDINALLY
- LANDSCAPE SHALL BE PLACED ALONG EDGE OF THE PAVER PLAZA BETWEEN PLANTED OR GRASS AREA ONLY, DO NOT PLACE EDGE WHERE PAVERS ARE ADJCENT TO CONCRETE OR FLEXIBLE SIDEWALK
- SEE ROADWAY PAVEMENT PLANS (HD-1 TO HD-9) FOR PCC AND FLEXIBLE SIDEWALK AREAS AND DETAILS

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

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW
SOUTH SQUARE
HARDSCAPE PLAN E

PROJECT ENG. K.M.
DESIGNED BY B.B./T.F.
CHECKED BY B.B.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 159 OF 197

LS-17

S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P017_HARDSCAPE PLAN E.dgn
Wednesday, September 19, 2018 AT 11:52 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	160	197

1 LS-25 BOLA BIKE RACK

3 LS-25 24" TRASH CAN

SD

70" TOWNE SQUARE BENCH (TYP) 2 LS-25

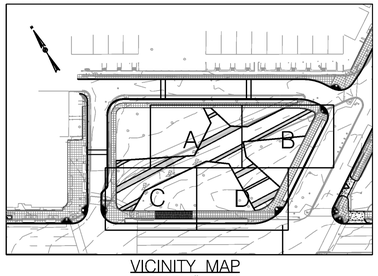
1 LS-24 POLYGON PERGOLA

3 LS-25 24" TRASH CAN

209+00

BOLA BIKE RACK 1 LS-25

24" TRASH CAN 3 LS-25



VICINITY MAP
SCALE: 1" = 100'

LEGEND

- 24" TRASH CAN 3 LS-25
- BOLA BIKE RACK 1 LS-25
- TOWNE SQUARE BENCH 2 LS-25

NOTE:
-SEE SHEETS LS-8 THROUGH LS-12 FOR DETAILED HARDSCAPE PLAN

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

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

LS-18

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW
NORTH SQUARE
FURNITURE PLAN

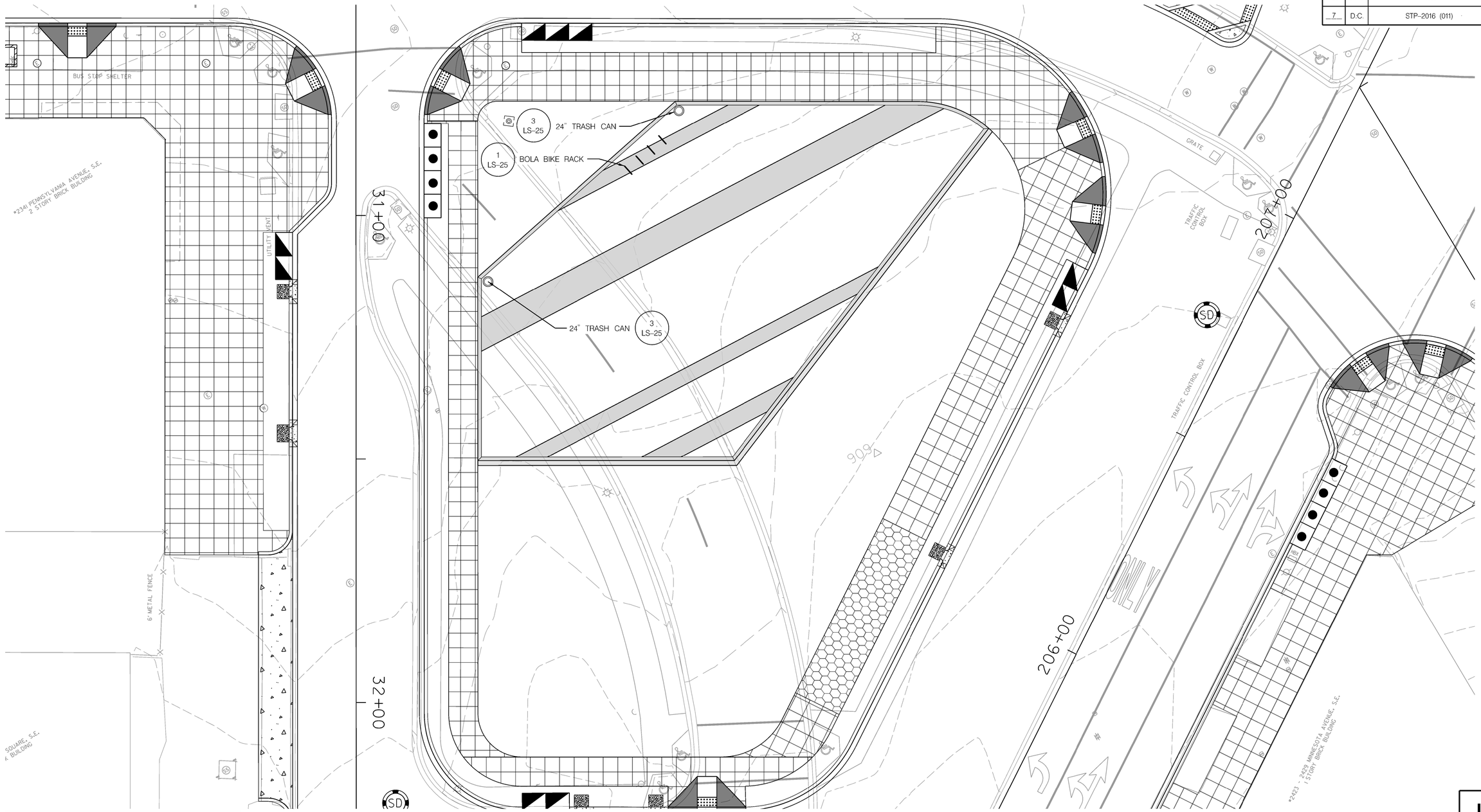
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

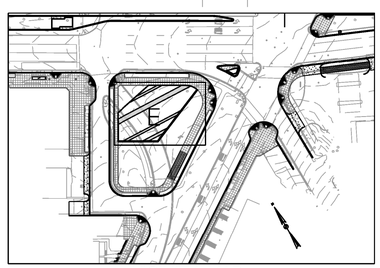
DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 160 OF 197

S:\0001-1000\0382A - Penn.Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P018_FURNITURE PLAN NORTH SQUARE.dgn
Wednesday, September 19, 2018 AT 09:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	161	197





VICINITY MAP
SCALE: 1" =100'

LEGEND

- 24" TRASH CAN — 3 LS-25
- BOLA BIKE RACK — 1 LS-25
- TOWNE SQUARE BENCH — 2 LS-25

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

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-19

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW
SOUTH SQUARE
FURNITURE PLAN

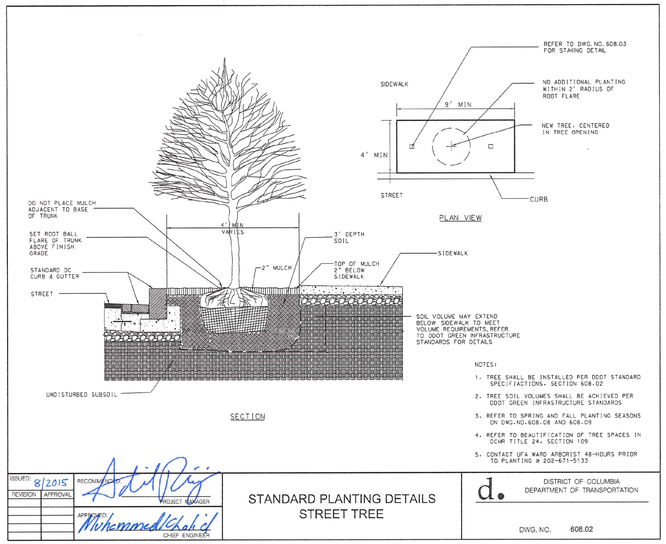
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 161 OF 197

S:\0001-1000\0382A - Penn Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\pLD-P019_FURNITURE PLAN SOUTH SQUARE.dgn
Wednesday, September 19, 2018 AT 09:41 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	162	197



ISSUED: 8/2015 | REVISION | APPROVAL

RECOMMENDED: PROJECT MANAGER

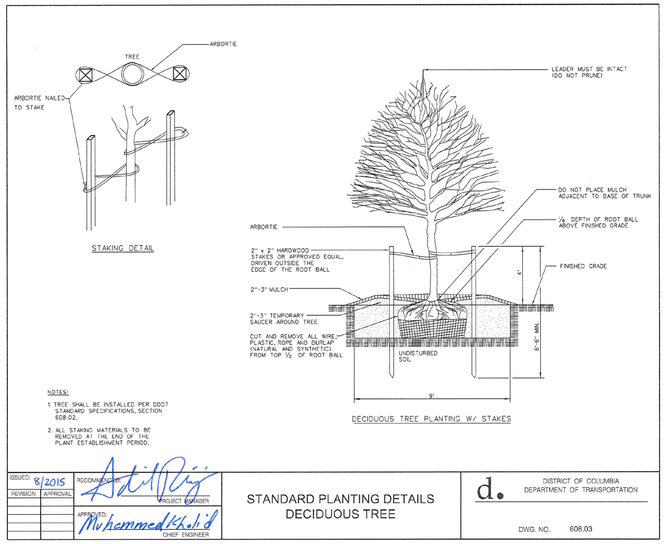
APPROVED: Mohammed Kholid CHIEF ENGINEER

STANDARD PLANTING DETAILS
STREET TREE

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.02

1 / LS-20 STANDARD PLANTING DETAILS – STREET TREE (DWG. 608.02)
SCALE: NOT TO SCALE



ISSUED: 8/2015 | REVISION | APPROVAL

RECOMMENDED: PROJECT MANAGER

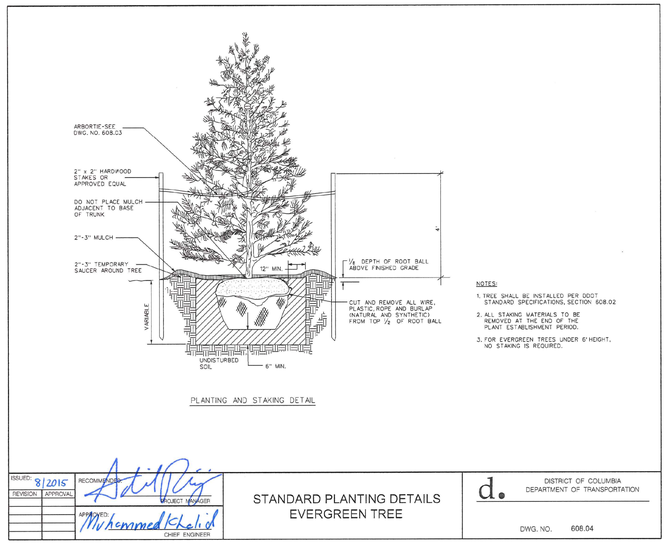
APPROVED: Mohammed Kholid CHIEF ENGINEER

STANDARD PLANTING DETAILS
DECIDUOUS TREE

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.03

2 / LS-20 STANDARD PLANTING DETAILS – DECIDOUS TREE (DWG. 608.03)
SCALE: NOT TO SCALE



ISSUED: 8/2015 | REVISION | APPROVAL

RECOMMENDED: PROJECT MANAGER

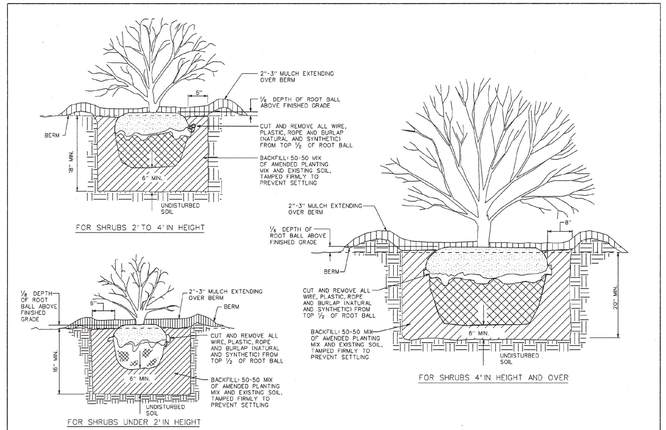
APPROVED: Mohammed Kholid CHIEF ENGINEER

STANDARD PLANTING DETAILS
EVERGREEN TREE

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.04

3 / LS-20 STANDARD PLANTING DETAILS – EVERGREEN TREE (DWG. 608.04)
SCALE: NOT TO SCALE



ISSUED: 8/2015 | REVISION | APPROVAL

RECOMMENDED: PROJECT MANAGER

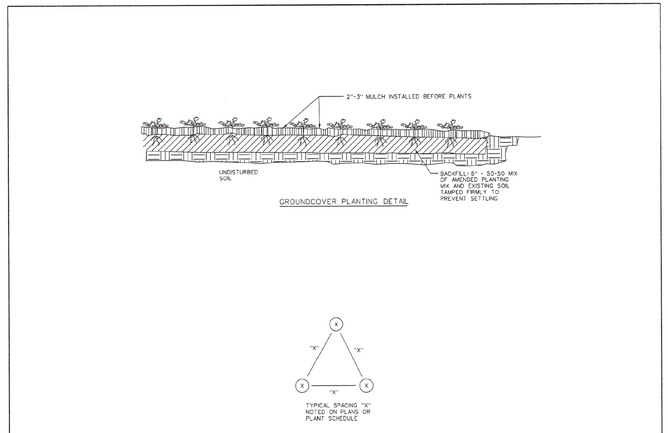
APPROVED: Mohammed Kholid CHIEF ENGINEER

STANDARD PLANTING DETAILS
SHRUBS

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.06

4 / LS-20 STANDARD PLANTING DETAILS – SHRUBS (DWG. 608.06)
SCALE: NOT TO SCALE



ISSUED: 8/2015 | REVISION | APPROVAL

RECOMMENDED: PROJECT MANAGER

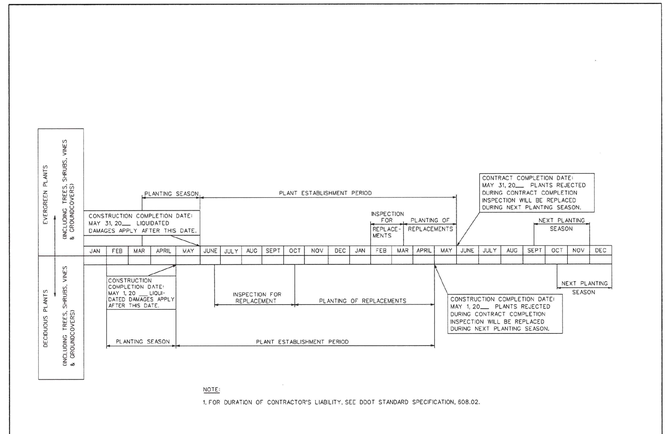
APPROVED: Mohammed Kholid CHIEF ENGINEER

STANDARD PLANTING DETAILS
GROUND COVER & PERENNIALS

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.07

5 / LS-20 STANDARD PLANTING DETAILS – GROUND COVER & PERENNIALS (DWG. 608.07)
SCALE: NOT TO SCALE



ISSUED: 8/2015 | REVISION | APPROVAL

RECOMMENDED: PROJECT MANAGER

APPROVED: Mohammed Kholid CHIEF ENGINEER

PLANTING & PLANT
ESTABLISHMENT PERIODS
SPRING PLANTING SEASON

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.08

6 / LS-20 PLANTING & PLANT ESTABLISHMENT PERIODS SPRING PLANTING SEASON (DWG. 608.08)
SCALE: NOT TO SCALE

LS-20

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
LANDSCAPE ARCHITECT
9-24-18

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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

PLANTING DETAILS

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 162 OF 197

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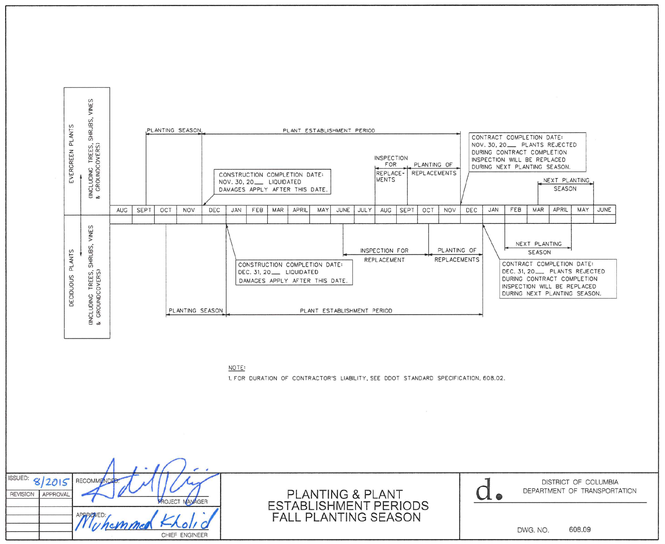
Wednesday, September 19, 2018 AT 09:43 AM

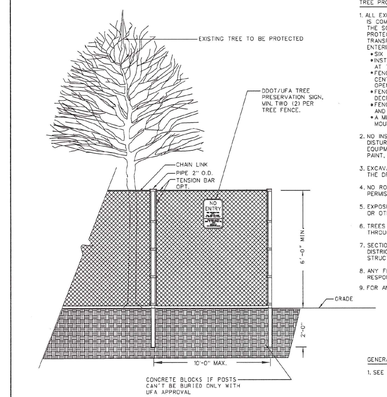
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	163	197



NOTE:
1. FOR DURATION OF CONTRACTOR'S LIABILITY, SEE DDOT STANDARD SPECIFICATION, 608.02.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	PLANTING & PLANT ESTABLISHMENT PERIODS FALL PLANTING SEASON	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammad Khalid, CHIEF ENGINEER		DWG. NO. 608.09

1 / LS-21 PLANTING & PLANT ESTABLISHMENT PERIODS FALL PLANTING SEASON (DWG. 608.09)
SCALE: NOT TO SCALE

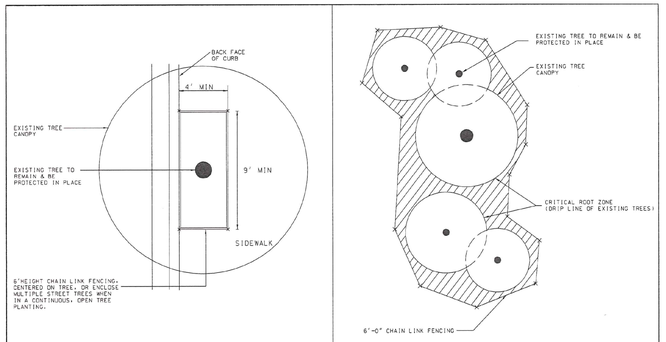


TREE PROTECTION NOTES:
1. ALL EXISTING STREET TREES, TO REMAIN WITHIN A WORK ZONE UNTIL A PROJECT IS COMPLETED, REQUIRE THE FOLLOWING AS TREE PROTECTION. IF FOR ANY REASON THE SCOPE OF THE PROJECT REQUIRES WORK TO BE PERFORMED WITHIN THE FENCED PROTECTION ZONE, THE PERMIT HOLDER MUST CONTACT THE DISTRICT 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 PROTECT AN AREA NO SMALLER THAN FOUR (4) FEET BY NINE (9) 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; 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 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 608.07 - TREE PROTECTION 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.

GENERAL NOTES:
1. SEE TREE PROTECTION FENCE - PLAN, DWG. NO. 608.11

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	TREE PROTECTION FENCE - ELEVATION	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammad Khalid, CHIEF ENGINEER		DWG. NO. 608.10

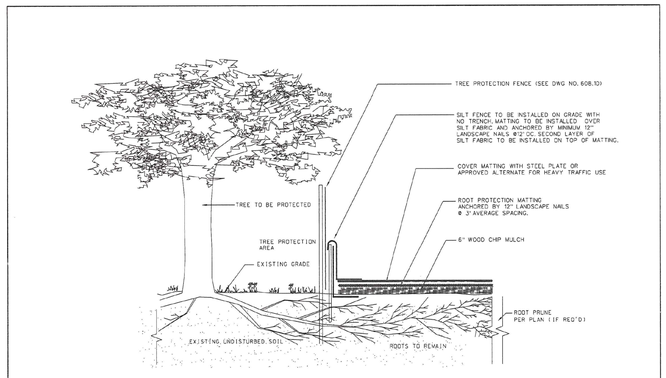
2 / LS-21 TREE PROTECTION FENCE – ELEVATION (DWG. 608.10)
SCALE: NOT TO SCALE



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 TREES 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: PROJECT MANAGER	TREE PROTECTION FENCE - PLAN VIEW	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammad Khalid, CHIEF ENGINEER		DWG. NO. 608.11

3 / LS-21 TREE PROTECTIION FENCE – PLAN VIEW (DWG. 608.11)
SCALE: NOT TO SCALE



NOTES:
1. MATTING MATERIAL SHALL BE DOUBLE SIDED GEOCOMPOSITE, GEONET CORE WITH NON-WOVEN COVERING (SUCH AS TENSAR ROADRAN RD31 OR APPROVED EQUIVALENT.
2. ROOT PROTECTION MATTING SHALL BE INSTALLED BY A CERTIFIED ARBORIST.
3. TO BE USED FOR DESIGNATED TEMPORARY CONSTRUCTION ACCESS AND STOCKPILE AREAS.
4. MATTING SHALL BE PLACED ON 6" WOOD CHIP MULCH UNLESS OTHERWISE DIRECTED.
5. FOR HEAVY TRAFFIC AREAS, MATTING SHALL BE COVERED WITH STEEL PLATES.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	TREE ROOT PROTECTION W/SILT FENCE	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammad Khalid, CHIEF ENGINEER		DWG. NO. 608.12

4 / LS-21 TREE ROOT PROTECTION W/SILT FENCE (DWG. 608.12)
SCALE: NOT TO SCALE

COMMONWEALTH OF VIRGINIA
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9-24-18
LANDSCAPE ARCHITECT

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Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-21

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY B.R. / T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

PARTIAL PLAN SUBMITAL 100% REVIEW

PLANTING DETAILS

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 163 OF 197

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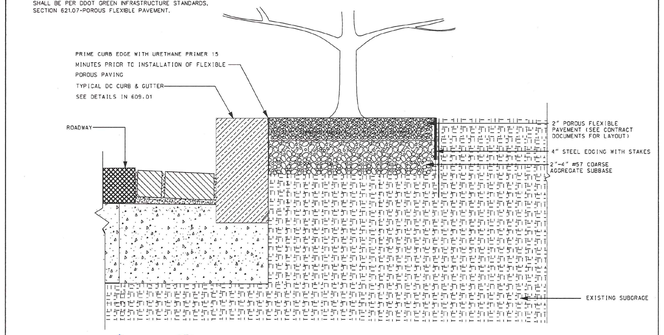
Wednesday, September 19, 2018 AT 09:51 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
		STP-2016 (011)	164	197

NOTES:

1. OPERATIONS SHALL BE CONDUCTED SO AS TO AVOID INJURY TO TREE TRUNKS, BRANCHES, AND ROOTS. EXCAVATIONS WITHIN LIMITS OF TREE ROOT SPREAD SHALL PROCEED WITH CARE EITHER BY USE OF HAND TOOLS OR WITH EQUIPMENT THAT WILL NOT CAUSE TREE ROOT DAMAGE.
2. REFER TO DDOT STANDARD SPECIFICATIONS, SECTION 608.08, TREE ROOT PROTECTION, AND TREE PROTECTION NOTES ON DDOT STANDARD DWG. NO. 608.10.
3. POROUS FLEXIBLE PAVEMENT MATERIALS AND INSTALLATION SHALL BE PER DDOT GREEN INFRASTRUCTURE STANDARDS, SECTION 621.07-POROUS FLEXIBLE PAVEMENT.

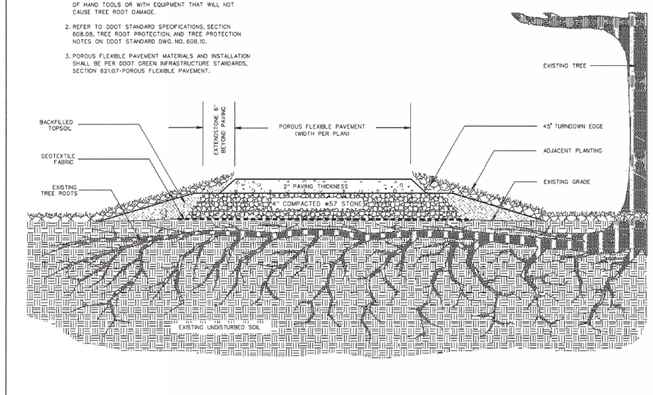


ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	POROUS FLEXIBLE PAVEMENT - IN-GRADE	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION | APPROVAL	APPROVED: Mohammed Khalid CHIEF ENGINEER		DWG. NO. 621.07

1 LS-22 POROUS FLEXIBLE PAVMENT IN-GRADE (DWG. 621.07)
SCALE: NOT TO SCALE

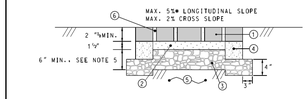
NOTES:

1. OPERATIONS SHALL BE CONDUCTED SO AS TO AVOID INJURY TO TREE TRUNKS, BRANCHES, AND ROOTS. EXCAVATIONS WITHIN LIMITS OF TREE ROOT SPREAD SHALL PROCEED WITH CARE EITHER BY USE OF HAND TOOLS OR WITH EQUIPMENT THAT WILL NOT CAUSE TREE ROOT DAMAGE.
2. REFER TO DDOT STANDARD SPECIFICATIONS, SECTION 608.08, TREE ROOT PROTECTION, AND TREE PROTECTION NOTES ON DDOT STANDARD DWG. NO. 608.10.
3. POROUS FLEXIBLE PAVEMENT MATERIALS AND INSTALLATION SHALL BE PER DDOT GREEN INFRASTRUCTURE STANDARDS, SECTION 621.07-POROUS FLEXIBLE PAVEMENT.

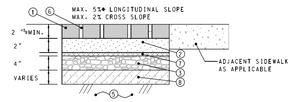


ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	POROUS FLEXIBLE PAVEMENT - ABOVE GRADE	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION | APPROVAL	APPROVED: Mohammed Khalid CHIEF ENGINEER		DWG. NO. 621.08

2 LS-22 POROUS FLEXIBLE PAVEMENT – ABOVE GRADE (DWG. 621.08)
SCALE: NOT TO SCALE



SIDEWALK SECTION
★ STEEPER SLOPE ALLOWED IF APPROVED BY DDOT IPMA.



NON-INTERLOCKING PAVERS OVER SAND-BASED STRUCTURAL SOIL
★ STEEPER SLOPE ALLOWED IF APPROVED BY DDOT IPMA.

LEGEND

① PERMEABLE INTERLOCKING CONCRETE PAVERS (PICP) OR SIMILAR, OR NON-INTERLOCKING PAVERS, AS NOTED.

② BEDDING LAYER, AASHTO #8 OR APPROVED EQUIVALENT

③ DOUBLE WASHED AGGREGATE, AASHTO #57 OR APPROVED EQUIVALENT

④ CONCRETE EDGE RESTRAINT, MIN. 4" WIDE AND 7½" DEEP; MORTAR OR POLYMER ADHERED PAVERS TO TOP; ALTERNATIVELY, EXTEND EDGE RESTRAINT TO SURFACE. OTHER TYPES OF EDGE RESTRAINTS SUCH AS STEEL OR PLASTIC SHALL BE ALLOWED AS APPROVED BY THE ENGINEER AND BASED ON MANUFACTURER'S RECOMMENDATIONS.

⑤ UNCOMPACTED SUBGRADE FOR AREAS DESIGNED FOR INFILTRATION PRACTICES. FOR OTHER AREAS, COMPACT AS SPECIFIED IN SPECIFICATION CITED IN NOTE 2. FOR SOFT SOILS, INSTALL GEOGRID PER GEOTECHNICAL ENGINEER RECOMMENDATIONS. SEE NOTE 8 FOR ALTERNATE DESIGN.

⑥ JOINT TO HAVE 1/2 INCH MAXIMUM GAP IN ACCORDANCE WITH THE LATEST ADA REQUIREMENTS AND TO BE FILLED WITH AASHTO #8 OR APPROVED EQUIVALENT. MINIMUM GAP SHALL BE 1/4" OR PER MANUFACTURERS RECOMMENDATIONS FOR INTERLOCKING CONCRETE PAVERS.

⑦ GEOGRID, AS APPROVED BY DDOT

⑧ SAND-BASED STRUCTURAL SOIL (SBSS)

NOTES:

1. DETAIL TO BE USED ONLY WHEN APPROVED BY DDOT IPMA AND SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "PERMEABLE UNIT PAVERS".
2. AGGREGATE LAYERS SHALL MEET CURRENT APPROVED DDOT SPECIFICATION FOR "AGGREGATES FOR PERMEABLE PAVEMENT AND BIORETENTION".
3. WHERE INSITU SOILS ARE NOT CONDUCIVE TO INFILTRATION OF 1.2" OF RETENTION VOLUME WITHIN 72 HOURS, UNDERDRAINS SHOULD BE CONSIDERED THROUGH COORDINATION WITH DDOT IPMA .
4. WATERPROOF MEMBRANE TO BE USED TO PROMOTE WATER RE-USE, PROTECT NEARBY BUILDING FOUNDATIONS AND AVOID INFILTRATION AROUND UTILITIES. SEE DESIGN PLANS.
5. AGGREGATE DEPTH MAY BE GREATER THAN MINIMUM, AS SHOWN IN DESIGN PLANS TO ACHIEVE ADDITIONAL STORMWATER STORAGE.
6. BOTTOM OF PERMEABLE PAVEMENT STRUCTURE SHALL BE AT LEAST 2' ABOVE THE SEASONAL HIGH WATER TABLE OR TO BEDROCK, AS DETERMINED BY GEOTECHNICAL INVESTIGATION.
7. TOP OF PAVEMENT SHOULD BE DESIGNED TO ACHIEVE 1% MINIMUM SLOPE IN ANY DIRECTION.
8. IN AREAS OF TREE PLANTINGS WHICH CALL FOR SAND-BASED STRUCTURAL SOIL (SSBS), THE SBSS MAY EXTEND UNDER THE AGGREGATE BASE LAYER OF THE SIDEWALK.

	RECOMMENDED: DEPUTY CHIEF ENGINEER	PERMEABLE PAVER SIDEWALK	DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
DATE | APPR.	APPROVED:		DWG. NO. 621.06
REVISED			
ISSUED: REFERENCE	CHIEF TRANSPORTATION ENGINEER		

3 LS-22 PERMEABLE PAVERS SIDEWAL (DWG. 621.06)
SCALE: NOT TO SCALE

Benefits of Aqualine™ 4½" x 9":

Belgard's Aqualine permeable pavement systems eliminate stormwater runoff and improves water quality

- Interlocking blind spacer bars for increased structural performance and aesthetics
- Smooth surface with micro-chamfer to reduce vibration which can provide an ADA-compliant pavement
- True installed dimensions with variety of sizes for optimizing design
- Optimal joint openings for infiltration and maintenance

Benefits by the numbers:

- Chamfer width 3 mm
- Manufactured joint width 7 mm
- 100% pervious surface
- 6% surface open area
- Typical surface infiltration rate: > 500 in/hr* *(varies based on joint infill gradation)*

Interlocking pavers can be used for a variety of different vehicular applications. Appropriate shape and thickness is based on project-specific conditions including type of loading, base design, and subgrade conditions. It is recommended that you consult a Belgard representative in your area before specifying products for vehicular applications.

Check with your local Belgard representative for Colors and Finish options.

**Test with No. 89 joint fill*

Aqualine™ 4½" x 9"

Approximate Dimensions*

Paver
4½" x 9"
80 mm thick

**Check with local representative for mechanical installation availability*

Laying or hatch patterns are available on website

BELGARD®

Oldcastle® Architectural
900 Ashwood Parkway, Suite 600
Atlanta, GA 30338

For more info visit: Belgardcommercial.com

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4 LS-22 AQUALINE PERMEABLE PAVERS (CONT)
SCALE: NOT TO SCALE

Product Details

COMMERCIAL PLAZA · FACILITY & BUSINESS PARKING · COMMERCIAL & RESIDENTIAL ROAD · MINOR COLLECTOR & BUS PARKING · ADA COMPLIANT[1] · PERMEABLE COLLECTION · COLORGARD[2] · TEXTURGARD[3] · MECHANICAL INSTALL

AQUALINE PERMEABLE PAVERS

PAVERS	Paver Thickness	APPLICATIONS	COLORGARD PROCESS	TEXTURGARD PROCESS	MECHANICAL INSTALL	FINISHES
						Shot Blast · Ground Face · Smooth · Tumbled/ Antiqued**
4 1/2" x 9"	80 mm	✓	✓	IN SELECT REGIONS ONLY. CHECK WITH YOUR LOCAL BELGARD SALES REP.	✓	✓ · ✓ · ✓ · IN SELECT REGIONS ONLY. CHECK WITH YOUR LOCAL BELGARD SALES REP.
9" L-Shape	80 mm	✓	✓		✓	✓ · ✓ · ✓ ·
3" x 12"	80 mm	✓	✓	IN SELECT REGIONS ONLY. CHECK WITH YOUR LOCAL BELGARD SALES REP.		✓ · ✓ · ✓ · IN SELECT REGIONS ONLY. CHECK WITH YOUR LOCAL BELGARD SALES REP.
6" x 6"	80 mm	✓	✓			✓ · ✓ · ✓ ·
6" x 12"	80 mm	✓	✓			✓ · ✓ · ✓ ·
12" x 12"	80 mm	✓	✓			✓ · ✓ · ✓ ·
12" L-Shape	80 mm	✓	✓		✓	✓ · ✓ · ✓ ·

[1] To be ADA Compliant, joints are less than 1/2" wide.
[2] Colorgard is an integral process that uses oxide pigmentation to disperse key colors homogeneously throughout each paver.
[3] Texturgard is a face mix process that allows for exotic aggregate materials on the top face.

* Special order only
** When the product is TUMBLED/ANTIQUED, there is a chance that pieces may be broken off of an individual unit that take it out of compliance. It is the responsibility of the contractor to remove pieces with corner chips greater than 1/2" as to maintain ADA compliance.

Solid Color Offering

Regional Colors
These products may also come in a number of local colors. Check with your local Belgard Sales Representative for details.

4 LS-22 AQUALINE PERMEABLE PAVERS (CONT)
SCALE: NOT TO SCALE

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-22

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

HARDSCAPE DETAILS

PROJECT ENG. K.M.
DESIGNED BY B.R. / T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 164 OF 197

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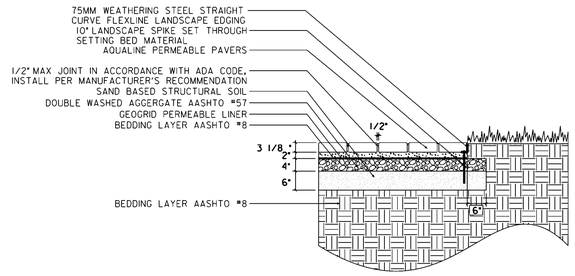
Wednesday, September 19, 2018 AT 11:59 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
		STP-2016 (011)	165	197



NOTES:

- WEATHERING STEEL IS INTENDED TO RUST
- INSTALL PERMEABLE PAVEMENT UNDERDRAIN AS REQUIRED BY STORMWATER MANAGEMENT PLAN.

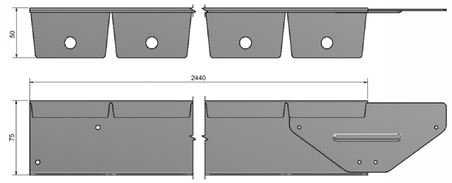
1 / LS-23 WEATHERING STEEL LANDSCAPE EDGING
SCALE: 6" = 1'-0"

straightcurve

75 mm Straightcurve Flexline

PRODUCT TECHNICAL DATA SHEET

Product code: FL075WS / FL075GS



APPLICATION

75mm Straightcurve Flexline is used to lock in pavers, gravel paths, bitumen or is used as a separator between different type ground coverings. It can also be used for non-invasive grasses that don't have a deep root system.

FEATURES

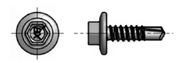
- Pre drilled holes;
  - * guarantees perfect alignment of edges
  - * no drilling required
  - * no clamping required
- Connector plate pre-attached
- Reinforced connector plate for continuous rigidity
- Notched top lip for increased flexibility and consistent flexible behaviour
- Weathering steel
- Heavy duty
- (Galvanised steel on request)

TECHNICAL SPECIFICATIONS

Material:	Weathering steel alloy Q345GNHL
Finish:	Black (rusts over time)
Height:	75 mm
Length:	2440 mm
Base width:	50 mm
Thickness:	1.5 mm
Weight:	4 kg

REQUIRED FASTENERS

Join lengths with Teks® screws 12G - 16 mm or use 4mm pop rivets.



2 / LS-23 STRAIGHTCURVE FLEXLINE LANDSCAPE EDGING
SCALE: NOT TO SCALE

straightcurve

INSTALLATION INSTRUCTIONS

- Mark the desired line on the ground with marker paint
- Place the edges roughly on the line
- Join lengths with Teks® screws in situ
- Secure edge in place with Straightcurve Fixing Pins

REQUIRED TOOLS

- Hammer
- Angle grinder
- Cordless drill with 5/16 hex drive when using Teks® Screws
- Pop Rivet gun when using pop rivets

REQUIRED ACCESSORIES

Straightcurve Fixing Pins

2 / LS-23 STRAIGHTCURVE FLEXLINE LANDSCAPE EDGING (CONTINUED)
SCALE: NOT TO SCALE

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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Engineers, Architects
Development Consultants
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Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-23

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

PARTIAL PLAN SUBMITAL 100% REVIEW

HARDSCAPE DETAILS

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 165 OF 197

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Wednesday, September 19, 2018 AT 09:55 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
		STP–2016 (011)	166	197

poligon®

PROJECT: PA & MN AVE

LOCATION: WASHINGTON, D.C.

BUILDING TYPE: TRELLIS-9X56

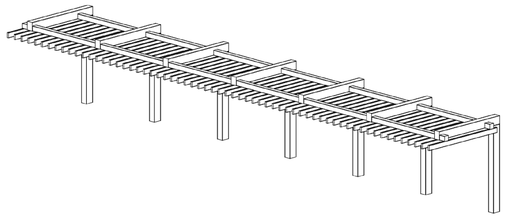
ROOF TYPE: LATILLA

BUILDING NUMBER: 16417

ORDER NUMBER: 60518

DRAWING LIST:

SHEET NUMBER	DRAWING DESCRIPTION
CS	COVER SHEET
1	ARCHITECTURAL ELEVATIONS
2	COLUMN LAYOUT



FABRICATOR APPROVALS:
CITY OF PHOENIX, AZ APPROVED FABRICATOR #CQB.2010
CITY OF LOS ANGELES, CA APPROVED FABRICATOR #1596
CITY OF RIVERSIDE, CA APPROVED FABRICATOR #SPO6-0033
CITY OF HOUSTON, TX APPROVED FABRICATOR #470
CLARK COUNTY, NV APPROVED FABRICATOR #264
STATE OF UTAH APPROVED FABRICATOR 02008-14

CERTIFICATES:
MIAMI DADE COUNTY CERTIFICATE OF COMPETENCY NO. 16-1025.01
PCI (POWDER COATING INSTITUTE) 4000 CERTIFIED

MATERIALS:

DESCRIPTION	ASTM DESIGNATION
TUBE STEEL	A500 (GRADE B)
SCHEDULE PIPE	A53 (GRADE B)
PIPE	A519
LIGHT GAGE COLD FORMED	A1003 (GRADE 50)
STRUCTURAL STEEL PLATE	A36
ROOF PANELS (STEEL)	A653

GENERAL NOTES:
UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED TO ONLY SUPPORT WHAT IS SHOWN ON THESE DRAWINGS. POLIGON MUST BE CONTACTED IF ANYTHING ELSE IS TO BE ATTACHED TO THIS STRUCTURE (WALLS, COLUMN WRAPS, RAILINGS, ETC.) SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.

UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED ASSUMING A 20' SEPARATION BETWEEN ANY ADJACENT STRUCTURE WITH AN EAVE HEIGHT EQUAL TO OR GREATER THAN THE EAVE HEIGHT OF THIS STRUCTURE. IF THAT SEPARATION DOES NOT EXIST, POLIGON MUST BE CONTACTED SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.

STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL.

ALL WELDING IS PERFORMED BY AMERICAN WELDING SOCIETY CERTIFIED WELDERS AND CONFORMS TO THE LATEST EDITION OF AWS D1.1 OR D1.3 AS REQUIRED.

PARTS SHOWN MAY BE UPGRADED DUE TO STANDARDIZED FABRICATION. REFER TO THE SHIPPING BILL OF MATERIALS FOR POSSIBLE SUBSTITUTIONS.

FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT THE PRIMARY FRAME INSTALLER AND THE ROOF INSTALLER HAVE A MINIMUM FIVE (5) YEARS DOCUMENTED EXPERIENCE INSTALLING THIS TYPE OF PRODUCT.

FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT ELECTRIC WIRING, IF REQUIRED, BE RUN THROUGH THE STRUCTURAL MEMBERS BEFORE THE BUILDING IS ERECTED.

STOP!!
NOT FOR CONSTRUCTION
USE FOR PRELIMINARY PLANNING AND ESTIMATING ONLY

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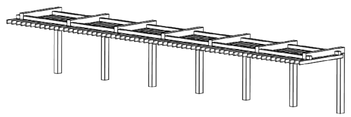
poligon® Commercial Entry Doors Storage and Access Solutions

DRAWN BY	CHECKED BY	ISSUED	DATE
JA	BR	1-24	10/9/2017
Chicago		2-24	1-24-18
			2-21-18

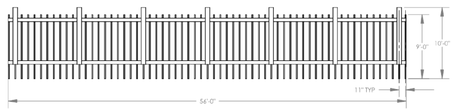
PROJECT: PA & MN AVE, WASHINGTON, D.C.
SHEET: COVER SHEET
CS

1 / LS–24 POLIGON PERGOLA DETAIL
SCALE: NOT TO SCALE

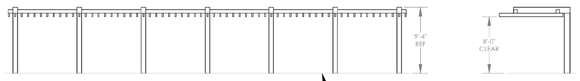
GENERAL ROOF NOTES:
1. METAL ROOFING:
   - 24 GAUGE
   - GALVALUME COATED
   - KYNAR 500 PAINTED
2. TRIM COLOR MATCHES ROOF
3. SEE POLIGON.COM FOR COLOR OPTIONS



ISOMETRIC VIEW



TOP VIEW



FRONT VIEW

FINISH GRADE MOUNTING VARIES BASED ON ENGINEERING REQUIREMENTS.

SIDE VIEW

STOP!!
NOT FOR CONSTRUCTION
USE FOR PRELIMINARY PLANNING AND ESTIMATING ONLY

poligon (416)399-1963 www.poligon.com by FORTER.COM
poligon® Commercial Entry Doors Storage and Access Solutions

DRAWN BY	CHECKED BY	ISSUED	DATE
JA	BR	1-24	10/9/2017
Chicago		2-24	1-24-18
			2-21-18

PROJECT: PA & MN AVE, WASHINGTON, D.C.
SHEET: ARCHITECTURAL ELEVATIONS
1

1 / LS–24 POLIGON PERGOLA DETAIL (CONT)
SCALE: NOT TO SCALE

BASEPLATE NOTES:
1. POLIGON ENGINEERING WILL DETERMINE REQUIRED BASEPLATE DESIGN AFTER ENGINEERING PACKAGE IS ORDERED.
2. CUSTOMER MAY SUGGEST PREFERRED BASEPLATE DESIGN.

STOP!!
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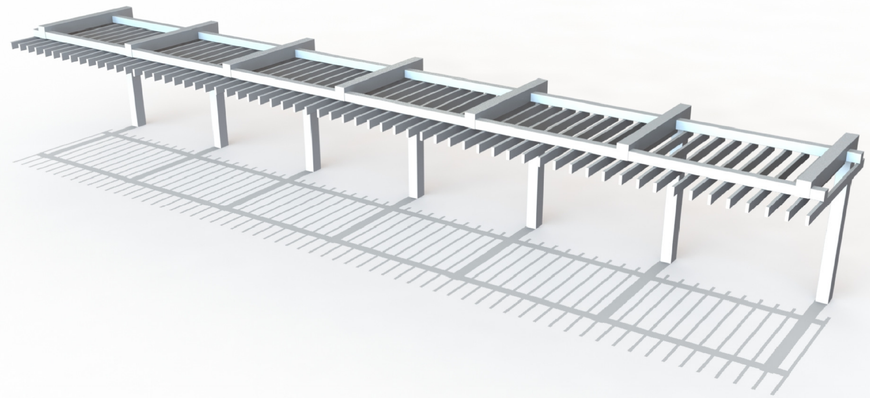
poligon® Commercial Entry Doors Storage and Access Solutions

DRAWN BY	CHECKED BY	ISSUED	DATE
JA	BR	1-24	10/9/2017
Chicago		2-24	1-24-18
			2-21-18

PROJECT: PA & MN AVE, WASHINGTON, D.C.
SHEET: COLUMN LAYOUT
2

1 / LS–24 POLIGON PERGOLA DETAIL (CONT)
SCALE: NOT TO SCALE

poligon®



FRAME COLOR: **GLACIER WHITE**
COLORS SHOWN ARE FOR REFERENCE ONLY.
CONTACT INFO@POLIGON.COM TO REQUEST ACTUAL COLOR SAMPLES.

PA & MN AVE
WASHINGTON, D.C.
TRELLIS-9X56

1 / LS–24 POLIGON PERGOLA DETAIL (CONT)
SCALE: NOT TO SCALE

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-24

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

PERGOLA DETAILS

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 166 OF 197

S:\0001-1000\0382A - Penn. Ave & Minn Ave, SE\cadd\construction documents\Landscape Arch Files\PLD-P024_PERGOLA DETAILS.dgn
Wednesday, September 19, 2018 AT 09:56 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
		STP–2016 (011)	167	197

Bola® Bike Rack
Installation Guide

Date: September 8, 2016
www.landscapeforms.com Ph: 800.521.2546

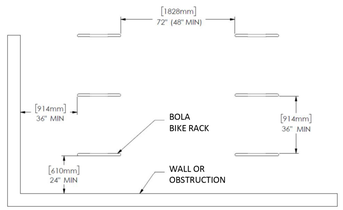
Embedded

HANDLE WITH CARE! Bola's finish can be scuffed by contact with tools, concrete, or other abrasive surfaces. Protect the finish from damage during installation. Use touch-up paint to repair any powder coat finish abrasions.

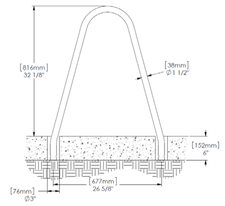
INSTALLATION:
1. Core drill 3" diameter (minimum) holes 6" deep.
2. Prepare the holes for outdoor anchoring cement, such as Kwixset ™ or Super Por-rok ®. Follow the manufacturer's instructions for blowing out dust, filling with water, scrubbing, and removing excess water.
3. Place the bike rack back into position and fill the holes with anchoring cement.
4. Wipe away any excess before it cures.

Tools Required

• Unit ships assembled



Recommended spacing, according to Association of Pedestrian and Bicycle Professionals (APBP)



Side Elevation, showing core drill sizes

landscapeforms

Page 1 of 1

1 / LS–25 BOLA BIKE RACK
SCALE: NOT TO SCALE

landscapeforms

BOLA®
Product Data Sheet

An artful solution for bicycle storage and security that meets Association of Pedestrian and Bicycle and Professionals (APBP) recommendations. Bola's understated design doesn't conflict with other site elements. An artful solution for bicycle storage and security that meets Association of Pedestrian and Bicycle and Professionals (APBP) recommendations. Bola's understated design doesn't conflict with other site elements.

Bike Rack
- Capacity: 2 bikes
- Bike racks made of 1.5" o.d., .120" wall stainless steel tubing, with a #4 satin electropolish finish on bare stainless steel.
- Bola is also available in powdercoated steel.
- Bola must be embedded.
- Bola an secure two bicycles parked parallel to the rack.
- The bicycles can be headed in opposite directions, or in the same direction. The rack provides two- point contact to prevent the bicycle from tipping over.
- A standard D-shaped bike lock can secure both a wheel and the frame.

	STYLE	DEPTH	WIDTH	HEIGHT	PRODUCT WEIGHT
	Bola	1.5"	28.25"	32"	13 lb

Finishes
- All metal parts are finished with Landscape Forms' proprietary Pangard II® polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling and fading.
- Call for standard color chart.

To Specify
- Select bike rack style. Specify powdercoat color or stainless steel.

Designed by Brian Kane, IDSA
All Landscape Forms bike racks meet guidelines established by the Association of Pedestrian and Bicycle Professionals.

1 / LS–25 BOLA BIKE RACK (CONT)
SCALE: NOT TO SCALE

landscapeforms

TOWNE SQUARE™
Product Data Sheet

The welcoming gesture of a roll back sofa, the comfort of a gently curved seat, and reflections on a traditional park bench meet in Towne Square. Designer Brian Kane found the familiar in classic metal strap benches and married that traditional motif with state-of-the-art plasma cutting to create what he calls "craft through technology." Towne Square applies Kane's signature vocabulary of forms, from interior furniture to benches and chairs for the exterior urban environment. It renders robust tubular and sheet steel into graceful furniture with a fluid profile and transparency to the surrounding landscape. Optional perforated steel seats lend Towne Square a contemporary character.

Bench
- Strap and perforated seat styles offered in 32", 49" or 70" lengths.
- One divider is available for the 49" bench; the 70" bench, may be specified with two intermediate dividers.
- A single panel is formed to make a comfortable seat.
- Seating panels are vertical steel straps (1-1/2" x 1/8"), or perforated steel.
- The Towne Square bench comes standard with freestanding glides.
- Bench may be surface mounted with glides in place.

	STYLE	DEPTH	LENGTH	HEIGHT	PRODUCT WEIGHT
	32"	27"	32"	32"	62 lb
	49"	27"	49"	32"	91 lb
	70"	27"	70"	32"	127 lb
SEAT PANEL		INTERMEDIATE DIVIDER OPTIONS			
Perforated		One		Two	

Metal Finishes
- Metal is finished with Landscape Forms' proprietary Pangard II® polyester powdercoat, a hard yet flexible finish that resists rusting, chipping, peeling and fading.
- See standard color chart.

To Specify
- Specify bench length, vertical strap or perforated seat style, with or without center/intermediate dividers, and powdercoat color.

Designed by Brian Kane, IDSA

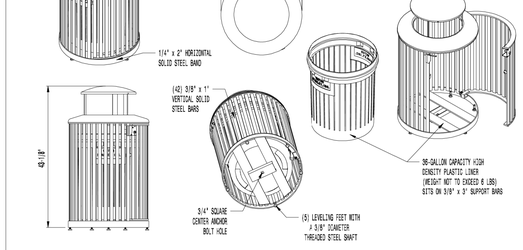
2 / LS–25 TOWNE SQUARE BENCH
SCALE: NOT TO SCALE

VICTOR STANLEY, INC.
«Manufacturers of Quality Site Furnishings since 1962»

P.O. DRAWER 330 - DUNKIRK, MD 20754 USA
TOLL FREE: (800) 368-2570 (USA & CANADA)
TEL (301) 855-8300 - FAX (410) 257-7579
WEB SITE: HTTP://WWW.VICTORSTANLEY.COM

THIS PRODUCT IS COVERED BY ONE OR MORE OF THE FOLLOWING
U.S. PATENTS D495,980 S; D450,166 S; D478,454 S; D478,455 S
CANADIAN PATENTS 98101; 98159; 98102; 98108

OPTIONAL LOCK BOX U.S. PATENT 6,339,844 B1



AVAILABLE OPTIONS:
POWDER COATING
TO STANDARD COLORS, CUSTOM COLORS (INCLUDING THE RAL RANGE)
CUSTOM PLAQUES & DECALS
AVAILABLE WITH STEEL PLAQUES IN VARIOUS SIZES AND PRESSURE SENSITIVE VINYL OUTDOOR DECALS.

LIDS
STANDARD DOMED RIVETED LID. AVAILABLE WITH OPTIONAL 9-26 FORMED DOME LID (AS SHOWN), 9-26 FORMED DOME LID WITH STAINLESS STEEL ASHTRAY.
SECURITY
STANDARD WITH LOCKABLE LATCH. AVAILABLE WITH OPTIONAL KEYED LOCK BOX (AS SHOWN). LID RIVETED IN PLACE. AVAILABLE WITH OPTIONAL MOUNT WITH 3 IN-LINE ANCHOR HOLES AND OPTIONAL BOTTOM PLATE COVER.

NOTES:
1. DRAWINGS NOT TO SCALE. DO NOT SCALE DRAWINGS.
2. ALL FABRICATED METAL COMPONENTS ARE STEEL SHOTBLASTED, ETCHED, PHOSPHATIZED, PREHEATED, AND ELECTROSTATICALLY POWDER-COATED WITH T.G.I.C. POLYESTER POWDER COATINGS. PRODUCTS ARE FULLY CLEANED AND PRETREATED, PREHEATED AND COATED WHILE HOT TO FULL DENSITIES AND BUILD FILM COATING. COATED PARTS ARE THEN FULLY CURED TO COATING MANUFACTURER'S SPECIFICATIONS. THE THICKNESS OF THE RESULTING FINISH AVERAGES 8-10 MILS (200-250 MICRONS).
3. OIL IMPREGNATED BRONZE BUSHINGS AND STAINLESS STEEL PIVOT PINS FOR DOOR MOVEMENT, STANDARD 3/16" SOLID STEEL LATCH ASSEMBLY OR OPTIONAL PATENTED STAINLESS STEEL KEYED LOCK ASSEMBLY.
4. THIS VICTOR STANLEY, INC. PRODUCT MUST BE PERMANENTLY AFFIXED TO THE GROUND. CONSULT YOUR LOCAL CODES FOR REGULATIONS.
5. VICTOR STANLEY, INC., PLASTIC INNER LINERS ARE MOLDED ON TOOLING DESIGNED FOR AND OWNED BY VICTOR STANLEY, INC. THEY OFFER MAXIMUM CAPACITY AND STRENGTH WITH LIGHTWEIGHT CONSTRUCTION USING CRITICAL MOLDED RIBS, INTEGRAL HANDHOLDS, AND HIGH-STRENGTH MATERIALS. THIS MINIMIZES HANDLING DIFFICULTY AND FACILITATES EASY EMPTYING AND STORAGE WHILE AFFORDING LONG SERVICE LIFE.
6. ANCHOR BOLT NOT PROVIDED BY VICTOR STANLEY, INC.
7. FOR HIGH SALT ABUSIVE CLIMATES, HOT DIP GALVANIZING BEFORE POWDER COATING IS AVAILABLE. SEE WRITTEN SPECIFICATIONS FOR DETAILS.
8. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE. CONTACT MANUFACTURER FOR DETAILS.
9. THIS PRODUCT IS SHIPPED FULLY ASSEMBLED.

NSDC-36
STERLITES™ SERIES
36-GALLON SIDE-DOOR-OPENING LITTER RECEPTACLE
SHOWN: OPTIONAL 9-26 FORMED DOME LID
OPTIONAL KEYED LOCK BOX

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REV. 10/2/07 DRAWN W.C.W. 2007-72

VICTOR STANLEY "Create a timeless moment."
Products may be powered. Visit VICTORSTANLEY.COM for details.

3 / LS–25 NSDC–36 TRASH CAN
SCALE: NOT TO SCALE

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
09-24-18
LANDSCAPE ARCHITECT

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-25

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

FURNITURE DETAILS

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 167 OF 197

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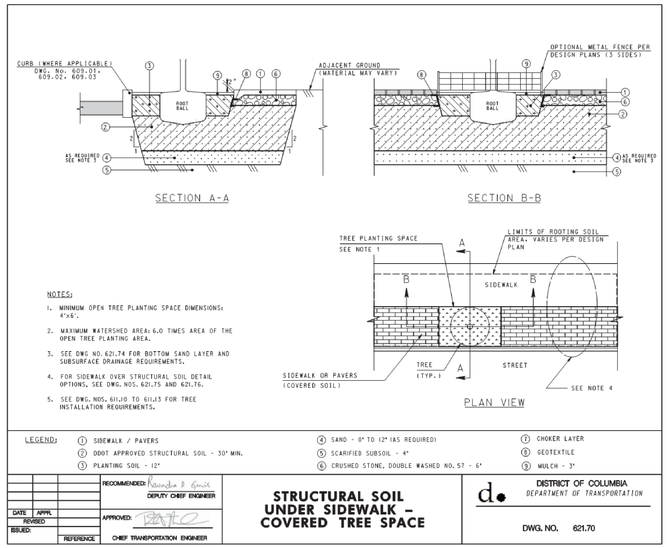
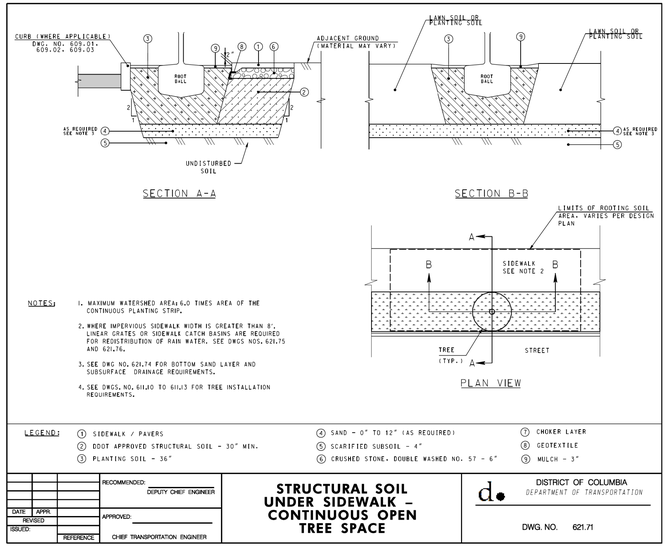
Wednesday, September 19, 2018 AT 09:57 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
		STP-2016 (011)	168	197



1 LS-26 STRUCTURAL SOILS UNDER SIDEWALK – COVERED OPEN TREE SPACE (DWG. 621.70)
SCALE: NOT TO SCALE



2 LS-26 STRUCTURAL SOILS UNDER SIDEWALK – CONTINUOUS OPEN TREE SPACE (DWG. 621.71)
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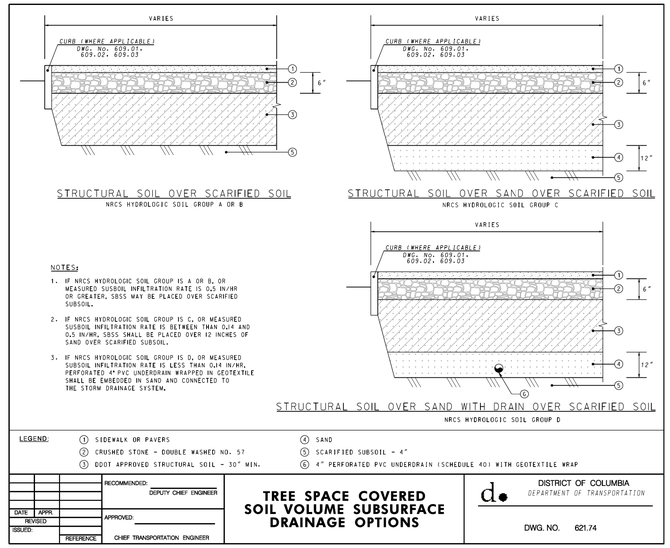

3 LS-26 TREE SPACE COVERED SOIL VOLUME SUBSURFACE DRAINAGE OPTIONS
SCALE: NOT TO SCALE

CU-STRUCTURAL SOIL® SPECIFICATIONS

PART 1 - DESCRIPTION AND SPECIFICATION

1.1 GENERAL

A. The specifications provided in this section consist of and are applicable to the research-based structural soil, urban tree soil mix, to safely increase rooting volumes and marketed under the registered trademarks CU-Structural Soil® and/or CU-Soil®. Only AMEREQ-licensed companies are authorized to produce this material utilizing the specifications described in this text and the method provided only to licensed producers.

For a list of licensed structural soil producers call AMEREQ, INC. at 800-832-8788 or email bkalter@amereq.com

1.2 REFERENCES AND STANDARDS

A. The following references are used herein and shall mean:

ASTM: American Society of Testing Materials
USDA: United States Department of Agriculture
AASHTO: American Association of State Highway and Transportation Officials
Standard Specifications: Regional or Municipal Standard Specifications Documentation for the location of proposed usage
AOAC: Association of Official Agricultural Chemists

1.3 SAMPLES AND SUBMITTALS

No materials shall be ordered until the required samples, certificates, manufacturer's literature, producer's current license and test results have been reviewed and approved by the landscape architect and/or engineer. The engineer reserves the right to reject any material that does not meet CU-Structural Soil® specifications. Delivered materials shall closely match the approved samples.

A. Contractor to submit from AMEREQ-licensed producer, 1/2 cubic foot representative sample of clay loam, one cubic foot representative sample of crushed stone, and one cubic foot representative sample of CU-Structural Soil® mix for approval. In the event of multiple source fields for clay loam, submit a minimum of one set of samples per source field or stockpile. The samples of all clay loam, crushed stone, and CU-Structural Soil® shall be submitted to the engineer as a record of the soil color and texture.

B. Contractor to submit from AMEREQ-licensed producer, soil test analysis reports for sample of clay loam from an independent soil-testing laboratory. (soil testing laboratory may include a public agricultural extension service agency)

1. Submit a mechanical analysis of the clay loam sample and particle size analysis including the following gradient of mineral content:

USDA Designation	Size in mm.
Gravel	+2 mm
Sand	0.05 – 2 mm
Silt	0.002-0.05 mm
Clay	minus 0.002 mm

Sieve analysis shall be performed and compared to USDA Soil Classification System.

Sieve analysis shall be done by a combined hydrometer and wet sieving using sodium hexametaphosphate as a dispersant in compliance with ASTM D422 after destruction of organic matter by hydrogen peroxide.

2. Contractor to submit from AMEREQ-licensed producer, a chemical analysis, performed in accordance with current AOAC Standards, including the following:

a. pH and buffer pH.
b. Percent organic matter as determined by the loss of ignition of oven dried samples. Test samples shall be oven dried to a constant weight at a temperature of 230 degrees F, plus or minus 9 degrees.
c. Analysis for nutrient levels by parts per million.
d. Soluble salt by electrical conductivity of a 1:2 soil/water sample measured in Millohm per cm.
e. Cation Exchange Capacity (CEC).
f. Carbon/Nitrogen Ratio.

C. Contractor to submit from AMEREQ-licensed producer, one cubic foot sample of crushed stone which will be used in production of CU-Soil®.

1. Provide particle size analysis:

USDA Designation	Size in mm.
3"	+76 mm
2 1/2"	63-76 mm
2"	50-63 mm
1 1/2"	37-50 mm
1"	25-37 mm
3/4"	19-25 mm
Fine gravel	2-19 mm

2. Provide the manufacturers analysis of the loose and rodded unit weight
3. Losses from LA Abrasion tests- not to exceed 40%
4. Minimum 90% with 2 or more fractured faces
5. Percent pore space analysis

D. At the engineer's discretion, the sample of CU-Structural Soil® may be tested for the following:

1. Compaction in accordance with ASTM D698/AASHTO T99 without removing oversize aggregate
2. California Bearing Ratio in accordance with ASTM D1883- soaked CBR shall equal or exceed a value of 50
3. Measured dry-weight percentage of stone in the mixture

E. The approved CU-Structural Soil® sample shall be the standard.

F. Any deviation from the specified crushed stone and clay loam specifications shall be approved by Amereq, Inc.

1.4 DELIVERY, STORAGE AND HANDLING

A. Delivered CU-Structural Soil® shall be at or near optimum compaction moisture content as determined by AASHTO T 99 (ASTM D 698) and should not be placed in frozen, wet or muddy sites.

B. Protect CU-Structural Soil® from exposure to excess water and from erosion at all times. Do not store CU-Soil® unprotected. Do not allow excess water to enter site prior to compaction. If water is introduced into the CU-Soil® after grading, allow water to drain to optimum compaction moisture content.

1.5 EXAMINATION OF CONDITIONS

A. All areas to receive CU-Structural Soil® shall be inspected by the installing contractor before starting work and all defects such as incorrect grading, compaction, and inadequate drainage shall be reported to the engineer prior to beginning this work.

1.6 QUALITY ASSURANCE

A. Qualifications of installing contractor: The work of this section should be performed by a contracting firm which has a minimum of five years' experience. Proof of this experience shall be submitted as per paragraph, SAMPLES and SUBMITTALS, of this section.

PART 2 - MATERIALS

2.1 CLAY LOAM

A. Soil to produce CU-Structural Soil® shall be a "loam" with a minimum clay content of 20% or a "clay loam" based on the "USDA classification system" as determined by mechanical analysis (ASTM D-422) and it shall be of uniform composition, without admixture of subsoil. It shall be free of stones, lumps, plants and their roots, debris and other extraneous matter. It shall not contain toxic substances harmful to plant growth. Clay loam shall contain not less than 2% or more than 6% organic matter as determined by the loss on ignition of oven-dried samples. Test samples shall be oven-dried to a constant weight at a temperature of 230 degrees F., plus or minus 9 degrees.

B. Mechanical analysis for the loam or clay loam shall be as follows:

Textural Class	% of Total Weight
Gravel	less than 5%
Sand	20-50%
Silt	20-45%
Clay	20-40%

C. Chemical analysis: Meet, or be amended to meet the following criteria:

1. pH between 5.5 to 6.5 when using limestone, up to 7.2 when using granite or other non-limestone crushed stone.

1 2 3

4 LS-26 STRUCTURAL SOIL SPECIFICATIONS
SCALE: NOT TO SCALE

SHELADIA ASSOCIATES, INC.
Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

LS-26

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY B.R. / T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

PARTIAL PLAN SUBMITAL 100% REVIEW
STRUCTURAL SOIL DETAILS & SPECIFICATIONS

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 168 OF 197

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Wednesday, September 19, 2018 AT 09:59 AM

2. Percent organic matter 2% - 6% by dry weight
3. Adequate nutrient levels
4. Soluble salt less than 1.0 mmho/cm
5. Cation Exchange Capacity (CEC) greater than 10
6. Carbon/Nitrogen ratio less than 33:1

D. Loam or clay loam shall not come from USDA - classified prime farmland.

2.2 FERTILIZER (if needed)

A. Should nutrient analysis suggest that the loam or clay loam need additional nutrients, it shall be amended by Amereq's licensed producer.

2.3 SULFUR (if needed)

A. Sulfur shall be a commercial granular, 96% pure sulfur, with material and analysis appearing on the labeled container.

B. Sulfur used to lower pH shall be a ferrous sulfate formulation.

C. Application rates shall be dependent on soil test results.

2.4 LIME (if needed)

A. Agricultural lime containing a minimum of 85% carbonates.

B. Application rates shall be dependent on soil test results.

2.5 CRUSHED STONE

A. The size of the crushed stone shall be 0.75 inches to 1.5 inches allowing for up to 10% being greater than 1.5 inches, and up to 10% less than 0.75 inches.

B. Acceptable aggregate dimensions will not exceed 2.5:1.0 for any two dimensions.

C. Minimum 90% with two or more fractured faces.

D. Results of Aggregate Soundness Loss test shall not exceed 18%.

E. Losses from LA Abrasion tests shall not exceed 40%.

2.6 HYDROGEL

A. Hydrogel shall be a coated potassium propenoate-propenamide copolymer (Gelscape® Hydrogel Tackifier) as manufactured by Amereq, Inc. 800-832-8788.

2.7 WATER

A. The installing contractor shall be responsible to furnish his own supply of water (if needed) free of impurities, to the site.

1 LS–27 STRUCTURAL SOIL SPECIFICATIONS (CONT)
SCALE: NOT TO SCALE

2.8 CU-STRUCTURAL SOIL®

A. A uniformly blended urban tree mixture of crushed stone, clay loam and Gelscape® Hydrogel Tackifier, as produced by an Amereq-licensed company, mixed in the following proportion:

Material	Unit of Weight
specified crushed Stone	100 units dry weight
specified clay loam	20 – 25 units (to achieve minimum CBR of 50)
Gelscape® Hydrogel Tackifier	0.035 units dry weight
	ASTM D698/AASHTO T-99 optimum moisture

PART 3 - PRODUCTION AND INSTALLATION GUIDELINES

3.1 CU-SOIL® MIXING AND QUALITY CONTROL TESTING

A. All CU-Structural Soil® mixing shall be performed at the licensed producer's yard using appropriate soil measuring, mixing and shredding equipment of sufficient capacity and capability to assure proper quality control and consistent mix ratios. No mixing of CU-Structural Soil® at the project site shall be permitted.

Maintain adequate moisture content during the mixing process. Soils and mix components shall easily shred and break down without clumping. Soil clods shall easily break down into a fine crumbly texture. Soils shall not be overly wet or dry. The licensed producer shall measure and monitor the amount of soil moisture at the mixing site periodically during the mixing process.

B. Raw materials shall be mixed off-site, only at the licensed producer's facility, on a flat asphalt or concrete paved surface to avoid soil contamination.

C. Should the independent laboratory test results of the clay loam reveal a need to amend it to meet specifications, the amending materials should be added to the clay loam following the rates and recommendations provided by Amereq,Inc.

3.2 UNDERGROUND UTILITIES AND SUBSURFACE CONDITIONS

A. The installing contractor shall notify the engineer of any subsurface conditions which will affect the contractor's ability to install the CU-Soil®.

B. The installing contractor shall locate and confirm the location of all underground utility lines and structures prior to the start of any excavation.

C. The installing contractor shall repair any underground utilities or foundations damaged during the progress of this work.

3.3 SITE PREPARATION

A. Do not proceed with the installation of the CU-Structural Soil® material until all walls, curb footings and utility work in the area have been installed. For site elements dependent on CU-Structural Soil® for foundation support, postpone installation of such elements until

immediately after the installation of CU-Structural Soil®.

B. Install subsurface drain lines as shown on the plan drawings prior to installation of CU-Structural Soil® material.

C. Excavate and compact the proposed subgrade to depths, slopes and widths as shown on the drawings. Maintain all required angles of repose of the adjacent materials as shown on the drawings. Do not over excavate compacted subgrades of adjacent pavement or structures.

D. Confirm that the subgrade is at the proper elevation and compacted as required. Subgrade elevations shall slope parallel to the finished grade and/or toward the subsurface drain lines as shown on the drawings.

E. Clear the excavation of all construction debris, trash, rubble and any foreign material. In the event that fuels, oils, concrete washout silts or other material harmful to plants have been spilled into the subgrade material, excavate the soil sufficiently to remove the harmful material. Fill any over excavation with approved fill and compact to the required subgrade compaction.

F. Do not proceed with the installation of CU-Structural Soil® until all utility work in the area has been installed. All subsurface drainage systems shall be operational prior to installation of CU-Structural Soil®.

G. Protect adjacent walls, walks and utilities from damage. Use ½" plywood and/or plastic sheeting as directed to cover existing concrete, metal and masonry work and other items as directed during the progress of the work.

1. Clean up all trash and any soil or dirt spilled on any paved surface at the end of each working day.
2. Any damage to the paving or architectural work caused by the installing contractor shall be repaired, as directed by the engineer.

H. Maintain all silt and sediment control devices required by applicable regulations. Provide adequate methods to assure that trucks and other equipment do not track soil from the site onto adjacent property and the public right of way.

3.4 INSTALLATION OF CU-STRUCTURAL SOIL® MATERIAL

A. Install CU-Structural Soil® in 6 inch lifts and compact each lift.

B. Compact all materials to at least 95% Proctor Density from a standard compaction curve AASHTO T 99 (ASTM D 698). No compaction shall occur when moisture content exceeds maximum as listed herein. Delay compaction if moisture content exceeds maximum allowable and protect CU-Structural Soil® during delays in compaction with plastic or plywood as directed by the engineer.

C. Bring CU-Structural Soil® to finished grades as shown on the drawings. Immediately protect the CU-Structural Soil® from contamination by toxic materials, trash, debris, water containing cement, clay, silt or materials that will alter the particle size distribution of the mix with plastic or plywood as directed by the engineer.

D. The engineer may periodically check the material being delivered, prior to installation for color and texture consistency with the approved sample provided by the installing contractor as part of the submittal for CU-Structural Soil®. If the engineer determines that the delivered CU-Soil® varies significantly from the approved samples, the engineer shall contact the

licensed producer.

E. Engineer shall ensure that the delivered structural soil was produced by the approved CU-Soil® licensee by inspecting weight tickets showing source of material.

F. CU-Soil® should not be stockpiled long-term. Any CU-Soil® not installed immediately should be protected by a tarp or other waterproof covering.

3.5 FINE GRADING

A. After the initial placement and rough grading of the CU-Structural Soil® but prior to the start of fine grading, the installing contractor shall request review of the rough grading by the engineer. The installing contractor shall set sufficient grade stakes for checking the finished grades.

B. Adjust the finish grades to meet field conditions as directed.

Provide smooth transitions between slopes of different gradients and direction.
Fill all dips with CU-Soil® and remove any bumps in the overall plane of the slope.

a. The tolerance for dips and bumps in CU-Structural Soil® areas shall be a 3" deviation from the plane in 10'.

All fine grading shall be inspected and approved by the engineer prior to the installation of other items to be placed on the CU-Structural Soil®.

C. The engineer will inspect the work upon the request of the installing contractor. Request for inspection shall be received by the engineer at least 10 days before the anticipated date of inspection.

3.6 ACCEPTANCE STANDARDS

A. The engineer will inspect the work upon the request of the installing contractor. Request for inspection shall be received by the engineer at least 10 days before the anticipated date of inspection.

3.7 CLEAN-UP

A. Upon completion of the CU-Structural Soil® installation operations, clean areas within the contract limits. Remove all excess fills, soils and mix stockpiles and legally dispose of all waste materials, trash and debris. Remove all tools and equipment and provide a clean, clear site. Sweep, do not wash, all paving and other exposed surfaces of dirt and mud until the paving has been installed over the CU-Structural Soil® material. Do no washing until finished materials covering CU-Structural Soil® material are in place.

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END OF SECTION

1 LS–27 STRUCTURAL SOIL SPECIFICATIONS (CONT)
SCALE: NOT TO SCALE

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-27

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

PARTIAL PLAN SUBMITAL 100% REVIEW
STRUCTURAL SOIL
DETAILS & SPECIFICATIONS

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 169 OF 197

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Wednesday, September 19, 2018 AT 10:00 AM

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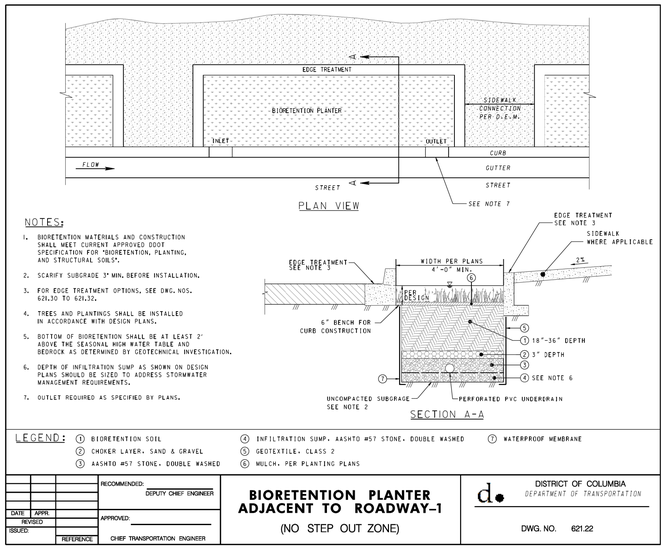

1 / LS-28 BIORETENTION PLANTER ADJACENT TO ROADWAY
SCALE: NOT TO SCALE

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Wednesday, September 19, 2018 AT 10:01 AM

COMMONWEALTH OF VIRGINIA
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NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-28

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

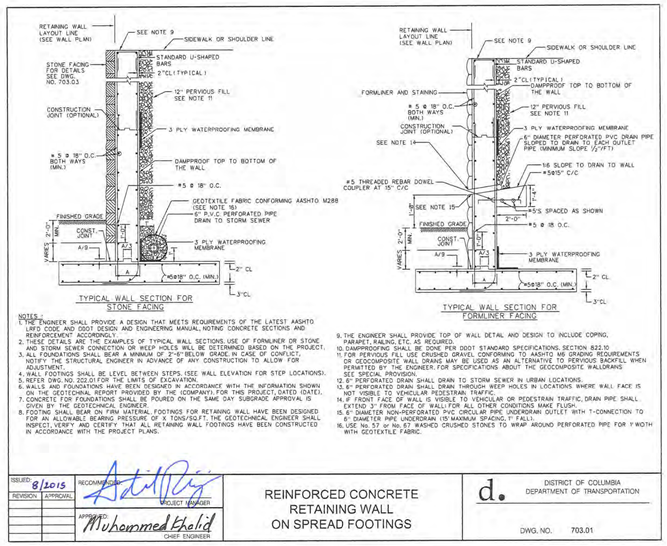
PARTIAL PLAN SUBMITAL 100% REVIEW

GREEN INFRASTRUCTURE DETAILS

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF
DATE APRIL 20, 2018
FILE
DWG. 170 OF 197

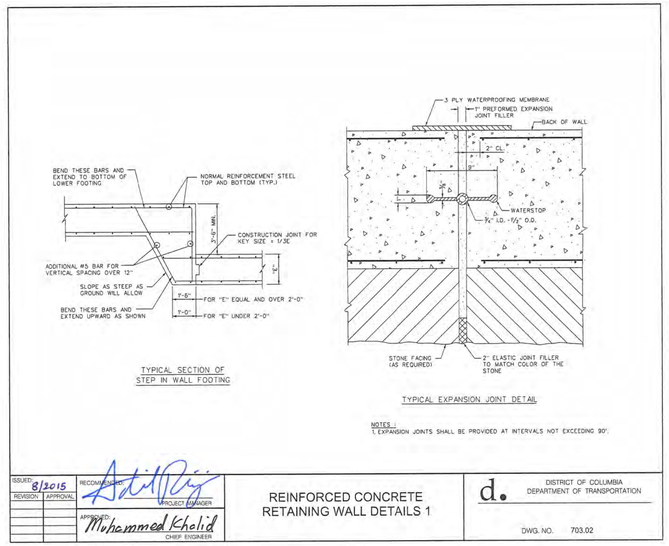
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
		STP-2016 (011)	171	197



NOTES :
1. THE ENGINEER SHALL PROVIDE A DESIGN THAT MEETS REQUIREMENTS OF THE LATEST AASHTO LRFD CODE AND DDOT DESIGN AND ENGINEERING MANUAL, NOTING CONCRETE SECTIONS AND REINFORCEMENT ACCORDINGLY.
2. THESE DETAILS ARE THE EXAMPLES OF TYPICAL WALL SECTIONS. USE OF FORMLINER OR STONE AND STORM SEWER CONNECTION OR WEEP HOLES WILL BE DETERMINED BASED ON THE PROJECT.
3. ALL FOUNDATIONS SHALL BEAR A MINIMUM OF 2'-0" BELOW ORIGINAL GROUND OR CONFLICT NOTED BY STRUCTURAL ENGINEER IN ADVANCE OF ANY CONSTRUCTION TO ALLOW FOR ADJUSTMENT.
4. WALL FOOTINGS SHALL BE LEVEL BETWEEN STEPS. (SEE WALL ELEVATION FOR STEP LOCATIONS).
5. REFER DWG. NO. 202.01 FOR THE LIMITS OF EXCAVATION.
6. WALLS AND FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE INFORMATION SHOWN ON THE GEOTECHNAL REPORT PROVIDED BY THE (COMPANY) FOR THIS PROJECT, DATED (DATE).
7. CONCRETE FOR FOUNDATIONS SHALL BE POURED ON THE SAME DAY SUBGRADE APPROVAL IS GIVEN BY THE GEOTECHNICAL ENGINEER.
8. FOOTING SHALL BEAR ON FIRM MATERIAL. FOOTINGS FOR RETAINING WALL HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF X TONS/SQ.FT. THE GEOTECHNICAL ENGINEER SHALL INSPECT, VERIFY AND CERTIFY THAT ALL RETAINING WALL FOOTINGS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PROJECT PLANS.
9. THE ENGINEER SHALL PROVIDE TOP OF WALL DETAIL AND DESIGN TO INCLUDE COPING, PARAPET, RAILING, ETC. AS REQUIRED.
10. DAMPPROOFING SHALL BE DONE PER DDOT STANDARD SPECIFICATIONS, SECTION 822.10.
11. FOR PERVIOUS FILL USE CRUSHED GRAVEL CONFORMING TO AASHTO NO. 57 GRADING REQUIREMENTS OR GEOCOMPOSITE WALL DRAINS MAY BE USED AS AN ALTERNATIVE TO PERVIOUS BACKFILL WHEN APPROVED BY THE ENGINEER FOR SPECIFICATIONS ABOUT THE GEOCOMPOSITE WALLDRAINS. SEE SPECIAL PROVISION.
12. 6" PERFORATED DRAIN SHALL DRAIN TO STORM SEWER IN URBAN LOCATIONS.
13. 6" PERFORATED DRAIN SHALL DRAIN THROUGH WEEP HOLES IN LOCATIONS WHERE WALL FACE IS NOT VISIBLE TO VEHICULAR PEDESTRIAN TRAFFIC.
14. 6" FRONT FACE OF WALL IS VISIBLE TO VEHICULAR OR PEDESTRIAN TRAFFIC, DRAIN PIPE SHALL EXTEND 3" FROM FACE OF WALL FOR ALL OTHER CONDITIONS MAKE FLUSH.
15. 6" DIAMETER NON-PERFORATED PVC CIRCULAR PIPE UNDERDRAIN OUTLET WITH T-CONNECTION TO 6" DIAMETER PIPE UNDERDRAIN (15' MAXIMUM SPACING, 1" FALL).
16. USE No. 57 or No. 67 WASHED CRUSHED STONES TO WRAP AROUND PERFORATED PIPE FOR Y WIDTH WITH GEOTEXTILE FABRIC.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	REINFORCED CONCRETE RETAINING WALL ON SPREAD FOOTINGS	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid CHIEF ENGINEER		DWG. NO. 703.01

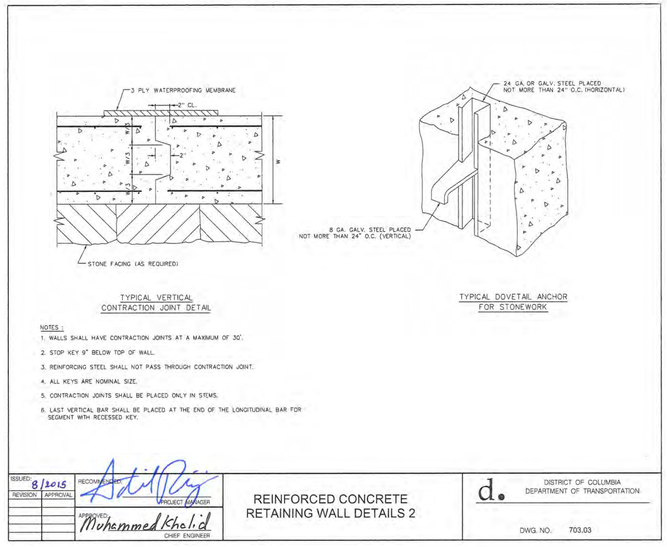
1 / LS-29 REINFORCED CONCRETE RETAINING WALL ON SPREAD FOOTING (DWG. 703.01)
SCALE: NOT TO SCALE



NOTES :
1. EXPANSION JOINTS SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 30'.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	REINFORCED CONCRETE RETAINING WALL DETAILS 1	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid CHIEF ENGINEER		DWG. NO. 703.02

2 / LS-29 REINFORCED CONCRETE RETAINING WALL DETAILS 1 (DWG. 703.02)
SCALE: NOT TO SCALE



NOTES :
1. WALLS SHALL HAVE CONTRACTION JOINTS AT A MAXIMUM OF 30'.
2. STOP KEY 9" BELOW TOP OF WALL.
3. REINFORCING STEEL SHALL NOT PASS THROUGH CONTRACTION JOINT.
4. ALL KEYS ARE NOMINAL SIZE.
5. CONTRACTION JOINTS SHALL BE PLACED ONLY IN STEMS.
6. LAST VERTICAL BAR SHALL BE PLACED AT THE END OF THE LONGITUDINAL BAR FOR SEGMENT WITH RECESSED KEY.

ISSUED: 8/2015	RECOMMENDED: PROJECT MANAGER	REINFORCED CONCRETE RETAINING WALL DETAILS 2	d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION
REVISION / APPROVAL	APPROVED: Muhammed Khalid CHIEF ENGINEER		DWG. NO. 703.03

3 / LS-29 REINFORCED CONCRETE RETAINING WALL DETAILS 2 (DWG. 703.03)
SCALE: NOT TO SCALE

NOTE:
-GRANITE FACED WALL, GRANITE TO MATCH CURB (SEE ROADWAY PAVING DETAILS)

COMMONWEALTH OF VIRGINIA
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www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

LS-29

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

PARTIAL PLAN SUBMITAL 100% REVIEW

RETAINING WALL DETAILS

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 171 OF 197

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Wednesday, September 19, 2018 AT 10:03 AM

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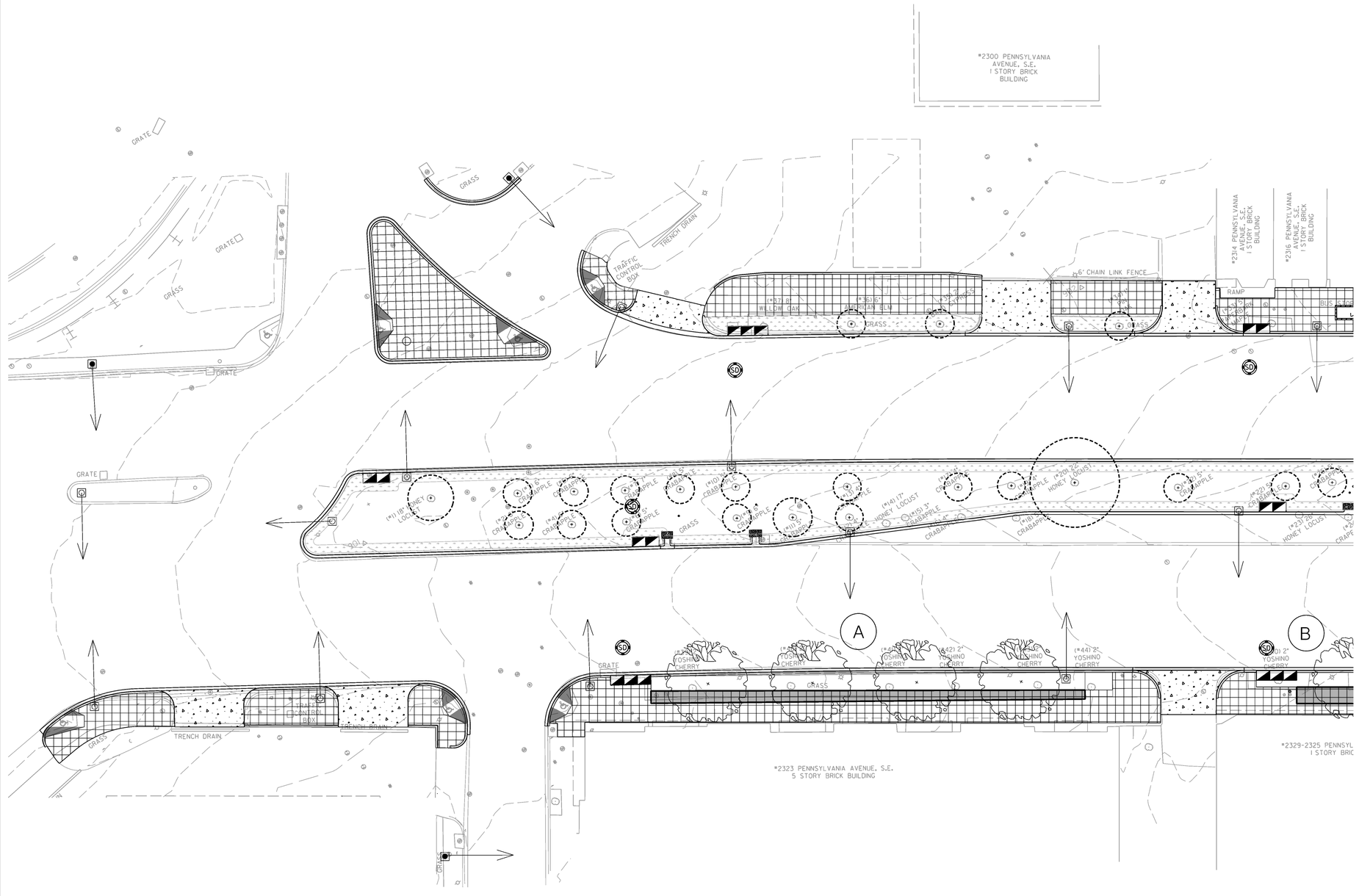
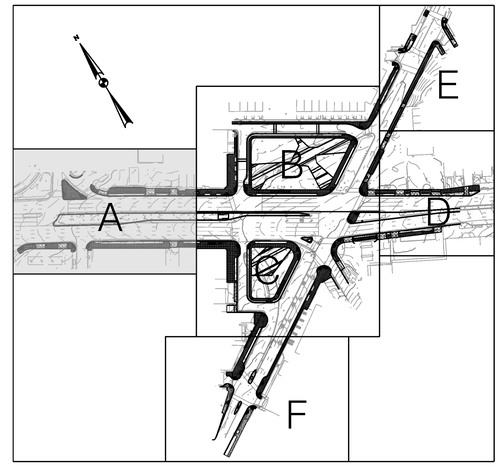
7	D.C.	STP-2016 (011)	172	197



TREE SYMBOL LEGEND

- KOELREUTERIA PANICULATE
- MAGNOLIA VIRGINIANA 'JIM WILSON'
- NYSSA SYLVATICA WILDFIRE
- QUERCUS BICOLOR
- QUERCUS PHELLOS
- EXISTING TREE TO REMAIN
- STRUCTURAL SOIL AREA



VICINITY MAP
SCALE: 1" = 200'

TREE SOIL VOLUME TABLE

KEY	NUMBER OF TREES	TREE SIZE	25% REDUCTION	TREE SOIL VOLUME REQ. (CUBIC FEET)	TOTAL SOIL VOLUME PROVIDED (CUBIC FEET)	STRUCTURAL VOLUME (CUBIC FEET)	PLANTER SOIL VOLUME (CUBIC FEET)
A	4	LARGE (1,500 CF)	X	4,500	4,541	1,798	2,743
B	1	LARGE (1,500 CF)		1,500	1,500	1,019	480
C	2	LARGE (1,500 CF)	X	2,250	2,280	1,116	1,164
D	6	LARGE (1,500 CF)	X	6,750	6,762	3,538	3,224
E	2	LARGE (1,500 CF)	X	2,250	2,250	1,095	1,155
F	1	LARGE (1,500 CF)		1,500	1,509	488	1,021
G	2	LARGE (1,500 CF)	X	2,250	2,255	1,135	1,119
H	1	LARGE (1,500 CF)		1,500	1,501	851	650
I	2	LARGE (1,500 CF)	X	2,250	2,250	1,266	984
J	1	LARGE (1,500 CF)		1,500	1,502	933	569
K	3	LARGE (1,500 CF)	X	3,375	3,378	1,902	1,476
L	1	LARGE (1,500 CF)		1,500	1,502	457	1,045

COMMONWEALTH OF VIRGINIA
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9-24-18
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20' 0 20' 40'
SCALE: 1" = 20'

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NO	DESCRIPTION	NAME	DATE

REVISIONS

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

STREET TREE PLAN A

LS-30

PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 172 OF 197

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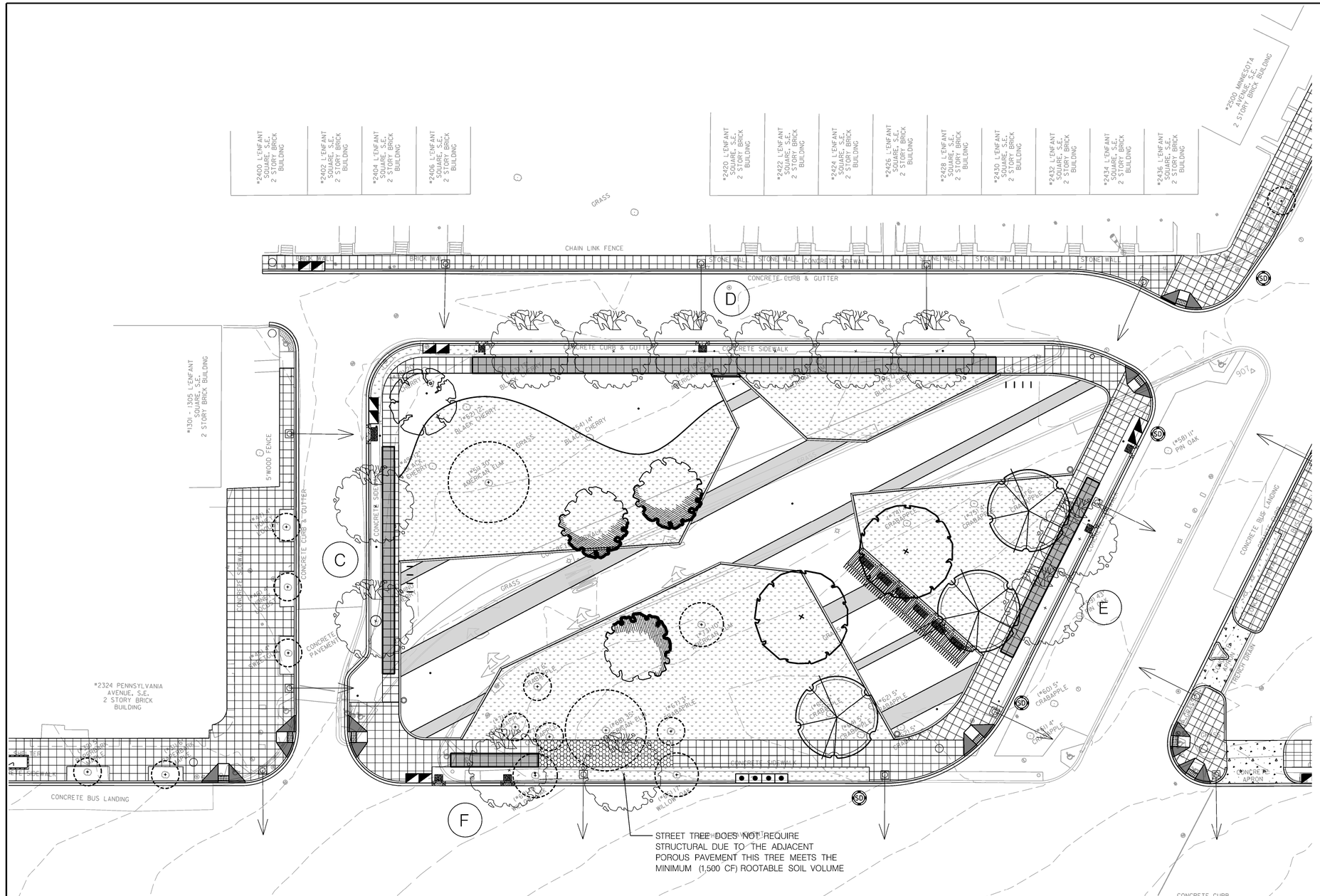
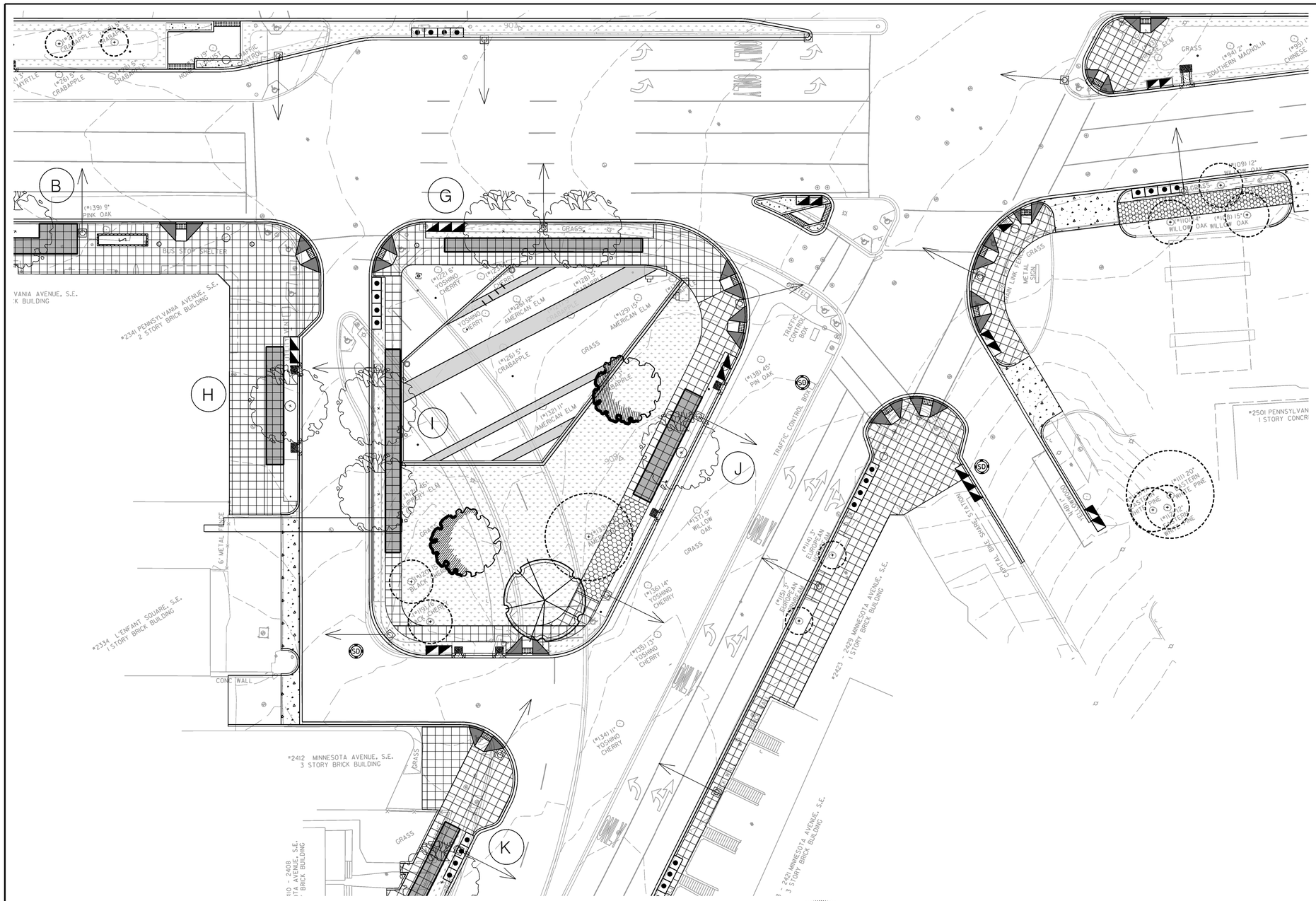
Wednesday, September 19, 2018 AT 12:01 PM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	173	197


*2400 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2402 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2404 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2406 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2420 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2422 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2424 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2426 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2428 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2430 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2432 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2434 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2436 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2300 MINNESOTA AVENUE, S.E. 2 STORY BRICK BUILDING
*1301 - 1305 L'ENFANT SQUARE, S.E. 2 STORY BRICK BUILDING
*2324 PENNSYLVANIA AVENUE, S.E. 2 STORY BRICK BUILDING
CHAIN LINK FENCE
BRICK WALL
STONE WALL
CONCRETE CURB & GUTTER
CONCRETE SIDEWALK
CONCRETE BUS LANDING
CONCRETE APRON
CONCRETE PAVEMENT
5' WOOD FENCE
GRASS
(*45) 14" BLACK CHERRY
(*52) 12" BLACK CHERRY
(*58) 11" PIN OAK
(*45) 20" AMERICAN LIME
(*78) 8" CRABAPPLE
(*60) 15" CRABAPPLE
(*62) 15" CRABAPPLE
(*65) 8" CRABAPPLE
(*68) 4" CRABAPPLE
(*72) 5" CRABAPPLE
(*75) 5" CRABAPPLE
(*80) 35" AMERICAN BASSWOOD
(*82) 35" AMERICAN BASSWOOD
(*85) 35" AMERICAN BASSWOOD
(*88) 35" AMERICAN BASSWOOD
(*90) 35" AMERICAN BASSWOOD
(*92) 35" AMERICAN BASSWOOD
(*95) 35" AMERICAN BASSWOOD
(*98) 35" AMERICAN BASSWOOD
(*100) 35" AMERICAN BASSWOOD
(*102) 35" AMERICAN BASSWOOD
(*105) 35" AMERICAN BASSWOOD
(*108) 35" AMERICAN BASSWOOD

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	174	197


B
G
H
I
J
K
(*139) 9" PINK OAK
BUS STOP SHELTER
*2341 PENNSYLVANIA AVENUE, S.E. 2 STORY BRICK BUILDING
*2334 L'ENFANT SQUARE, S.E. 1 STORY BRICK BUILDING
*2412 MINNESOTA AVENUE, S.E. 3 STORY BRICK BUILDING
*2423 - 2429 MINNESOTA AVENUE, S.E. 1 STORY BRICK BUILDING
*2501 PENNSYLVANIA
1 STORY CONCR
CHAIN LINK FENCE
6' METAL FENCE
CONC WALL
GRASS
METAL GRATE
TRAFFIC CONTROL BOX
CHEVAL BIKE SHARE STATION
SD
(*138) 45" PIN OAK
(*137) 9" WILLOW OAK
(*136) 14" YOSHINO CHERRY
(*135) 3" YOSHINO CHERRY
(*134) 11" YOSHINO CHERRY
(*133) 6" EUROPEAN HORNBEAM
(*132) 3" EUROPEAN HORNBEAM
(*131) 11" AMERICAN ELM
(*129) 15" AMERICAN ELM
(*128) 5" CRABAPPLE
(*127) 5" CRABAPPLE
(*126) 5" CRABAPPLE
(*125) 5" CRABAPPLE
(*122) 6" YOSHINO CHERRY
(*121) 6" YOSHINO CHERRY
(*120) 6" BLACK GUM
(*119) 6" BLACK GUM
(*118) 6" BLACK GUM
(*117) 6" BLACK GUM
(*116) 6" BLACK GUM
(*115) 6" BLACK GUM
(*114) 6" BLACK GUM
(*113) 6" BLACK GUM
(*112) 6" BLACK GUM
(*111) 20" EASTERN WHITE PINE
(*110) 15" WILLOW OAK
(*109) 12" WILLOW OAK
(*94) 3" SOUTHERN MAGNOLIA
(*95) 1" CHINESE
(*96) 3" CHINESE
(*97) 5" CRABAPPLE
(*98) 5" CRABAPPLE
(*99) 5" CRABAPPLE
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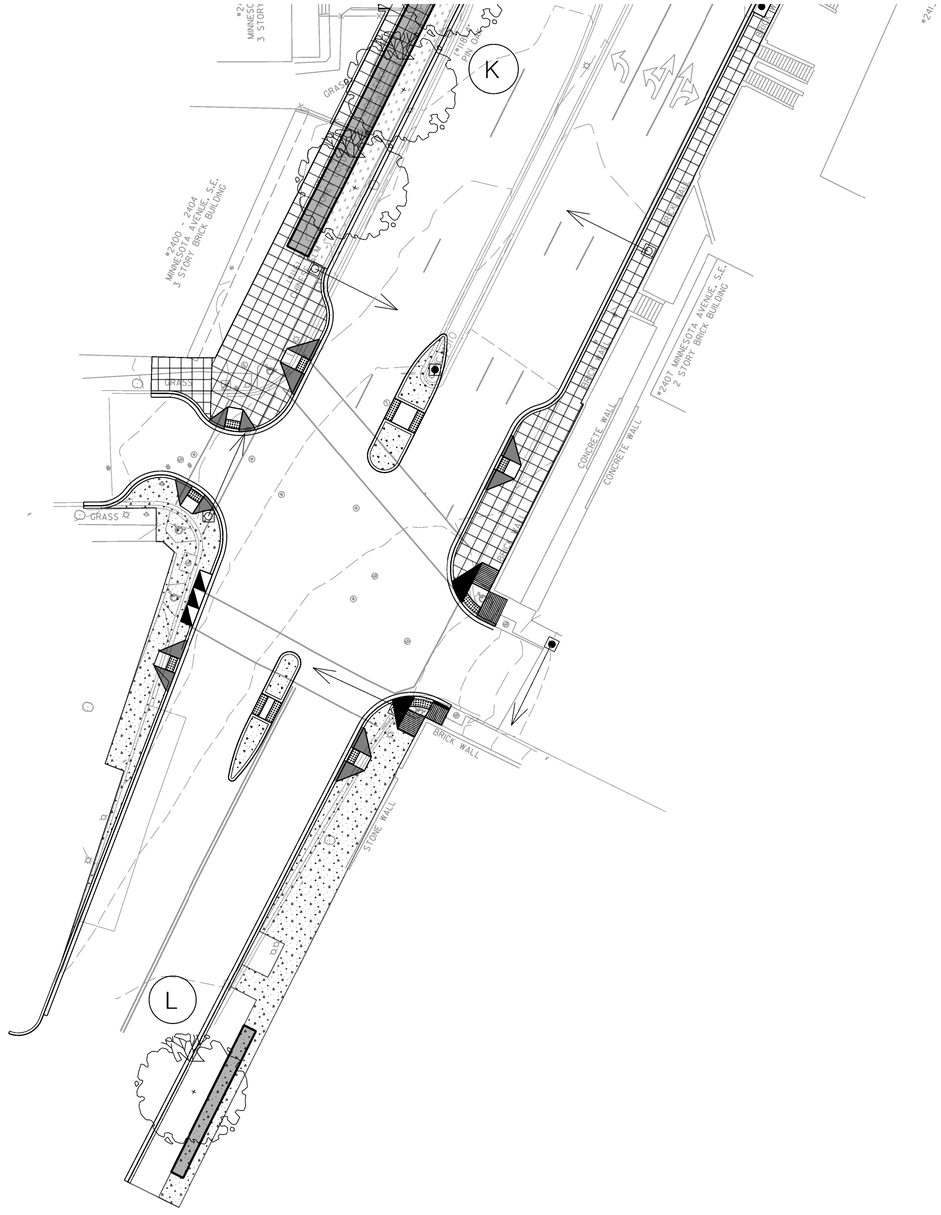
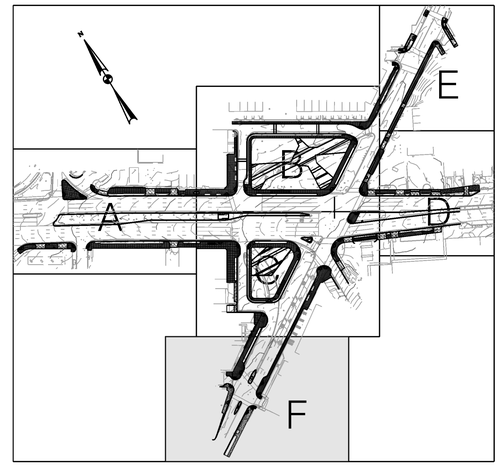
(*107) 5" CRABAPPLE
(*108) 5" CRABAPPLE
(*123) 5" CRABAPPLE
(*124) 5" CRABAPPLE
(*130) 14" YOSHINO CHERRY
(*135) 3" YOSHINO CHERRY
(*141) 11" YOSHINO CHERRY
(*142) 11" YOSHINO CHERRY
(*143) 11" YOSHINO CHERRY
(*144) 11" YOSHINO CHERRY
(*145) 11" YOSHINO CHERRY
(*146) 11" YOSHINO CHERRY
(*147) 11" YOSHINO CHERRY
(*148) 11" YOSHINO CHERRY
(*149) 11" YOSHINO CHERRY
(*150) 11" YOSHINO CHERRY

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	175	197



TREE SYMBOL LEGEND

- KOELREUTERIA PANICULATE
- MAGNOLIA VIRGINIANA 'JIM WILSON'
- NYSSA SYLVATICA WILDFIRE
- QUERCUS BICOLOR
- QUERCUS PHELLOS
- EXISITNG TREE TO REMAIN
- STRUCTURAL SOIL AREA



VICINITY MAP
SCALE: 1" = 200'

TREE SOIL VOLUME TABLE

KEY	NUMBER OF TREES	TREE SIZE	25% REDUCTION	TREE SOIL VOLUME REQ. (CUBIC FEET)	TOTAL SOIL VOLUME PROVIDED (CUBIC FEET)	STRUCTURAL VOLUME (CUBIC FEET)	PLANTER SOIL VOLUME (CUBIC FEET)
A	4	LARGE (1,500 CF)	X	4,500	4,541	1,798	2,743
B	1	LARGE (1,500 CF)		1,500	1,500	1,019	480
C	2	LARGE (1,500 CF)	X	2,250	2,280	1,116	1,164
D	6	LARGE (1,500 CF)	X	6,750	6,762	3,538	3,224
E	2	LARGE (1,500 CF)	X	2,250	2,250	1,095	1,155
F	1	LARGE (1,500 CF)		1,500	1,509	488	1,021
G	2	LARGE (1,500 CF)	X	2,250	2,255	1,135	1,119
H	1	LARGE (1,500 CF)		1,500	1,501	851	650
I	2	LARGE (1,500 CF)	X	2,250	2,250	1,266	984
J	1	LARGE (1,500 CF)		1,500	1,502	933	569
K	3	LARGE (1,500 CF)	X	3,375	3,378	1,902	1,476
L	1	LARGE (1,500 CF)		1,500	1,502	457	1,045

COMMONWEALTH OF VIRGINIA
BRIAN JAMES RUHL
Lic. No. 0406001350
9-24-18
LANDSCAPE ARCHITECT

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

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REVISIONS

LS-33

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IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
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FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 – WASHINGTON, D.C.

PARTIAL PLAN SUBMITAL 100% REVIEW

STREET TREE PLAN F

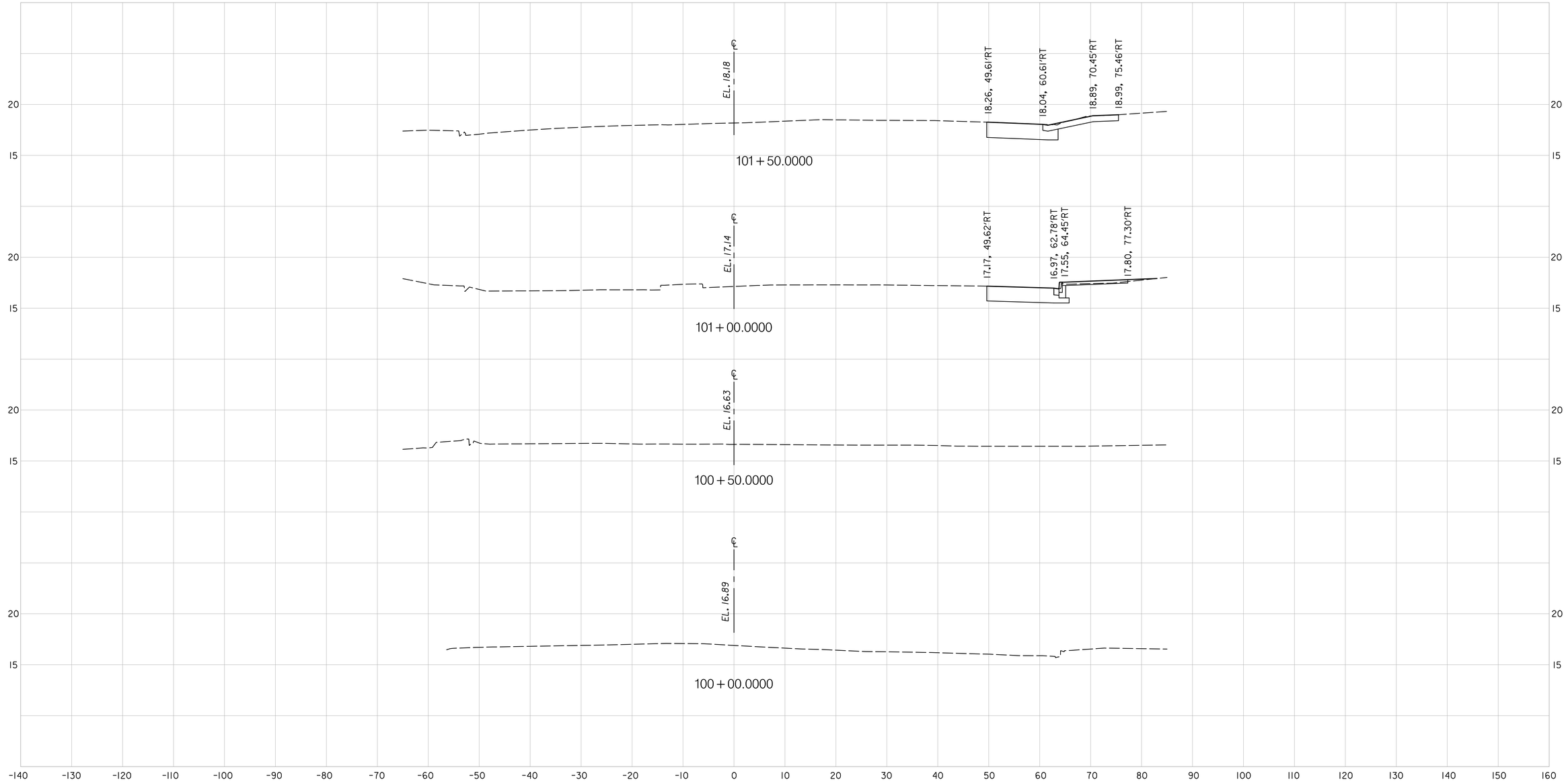
PROJECT ENG. K.M.
DESIGNED BY B.R./T.F.
CHECKED BY B.R.
DRAWN BY T.F.
PROJECT MGR. K.M.

DIVISION CHIEF

DATE APRIL 20, 2018
FILE
DWG. 175 OF 197

S:\0001-1000\0382A - Penn.Ave & Minn Ave. SE\cadd\construction documents\Landscape Arch Files\pLD-P033_STREET TREE PLAN F.dgn
Wednesday, September 19, 2018 AT 12:06 PM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	176	197



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

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

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REVISIONS

DISTRICT OF COLUMBIA
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PROFESSIONAL ENGINEER

HC-1

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INFRASTRUCTURE PROJECT MANAGEMENT ADMINISTRATION
PROJECT MANAGEMENT DIVISION

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

PENNSYLVANIA AVENUE S.E.
CROSS SECTIONS

DIVISION CHIEF
DATE
FILE
DWG. 176 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\X-Sections\mHC-0000_EDOBIA_Penn.dgn
Tuesday, September 25, 2018 AT 12:04 PM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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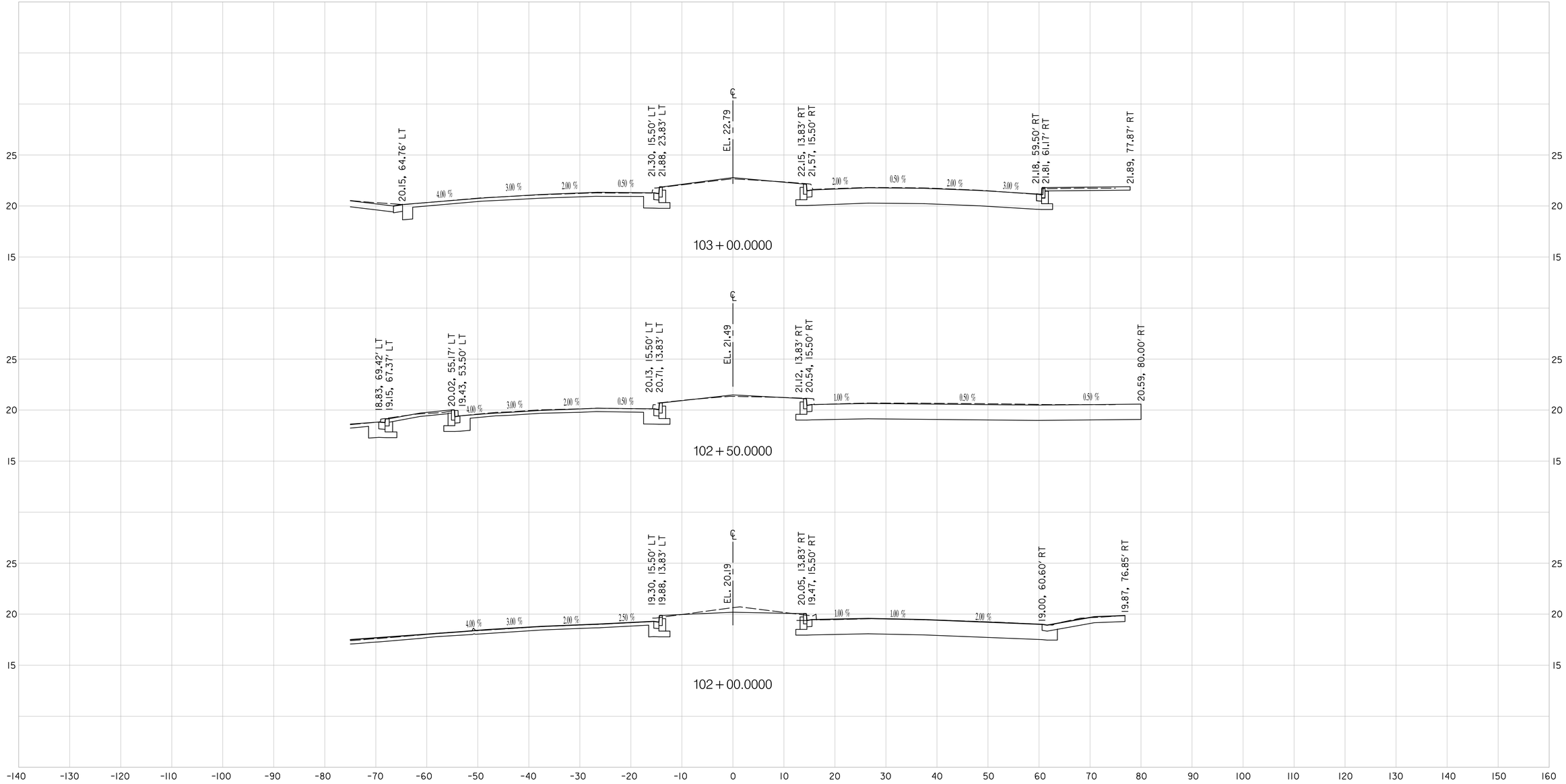

HC-2

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

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

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WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

PENNSYLVANIA AVENUE
CROSS SECTIONS

DIVISION CHIEF
DATE
FILE
DWG. 177 OF 197

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Tuesday, September 25, 2018 AT 11:35 AM

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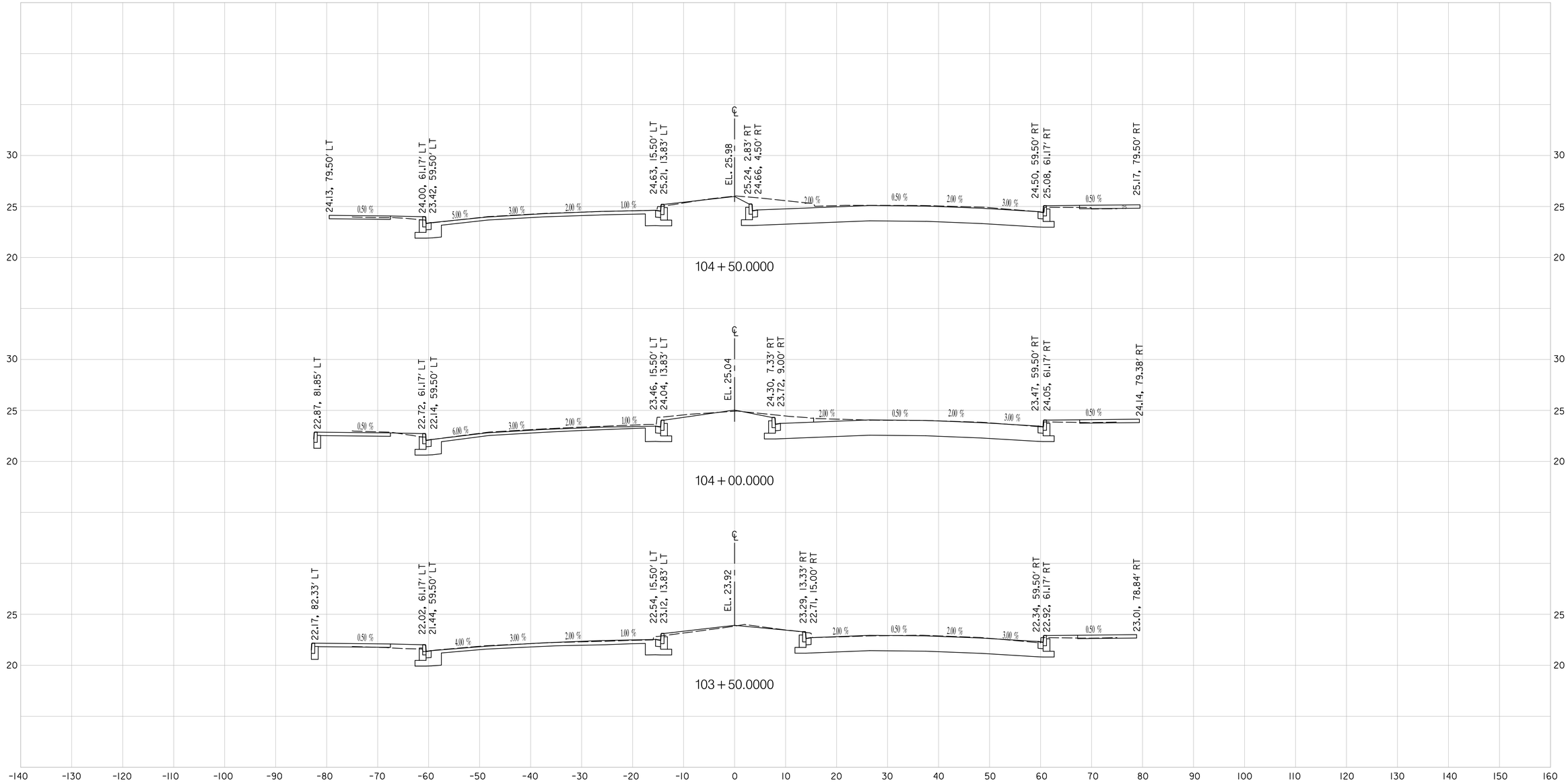
7	D.C.	STP-2016 (011)	178	197



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Tuesday, September 25, 2018 AT 11:35 AM

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

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

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HC-3

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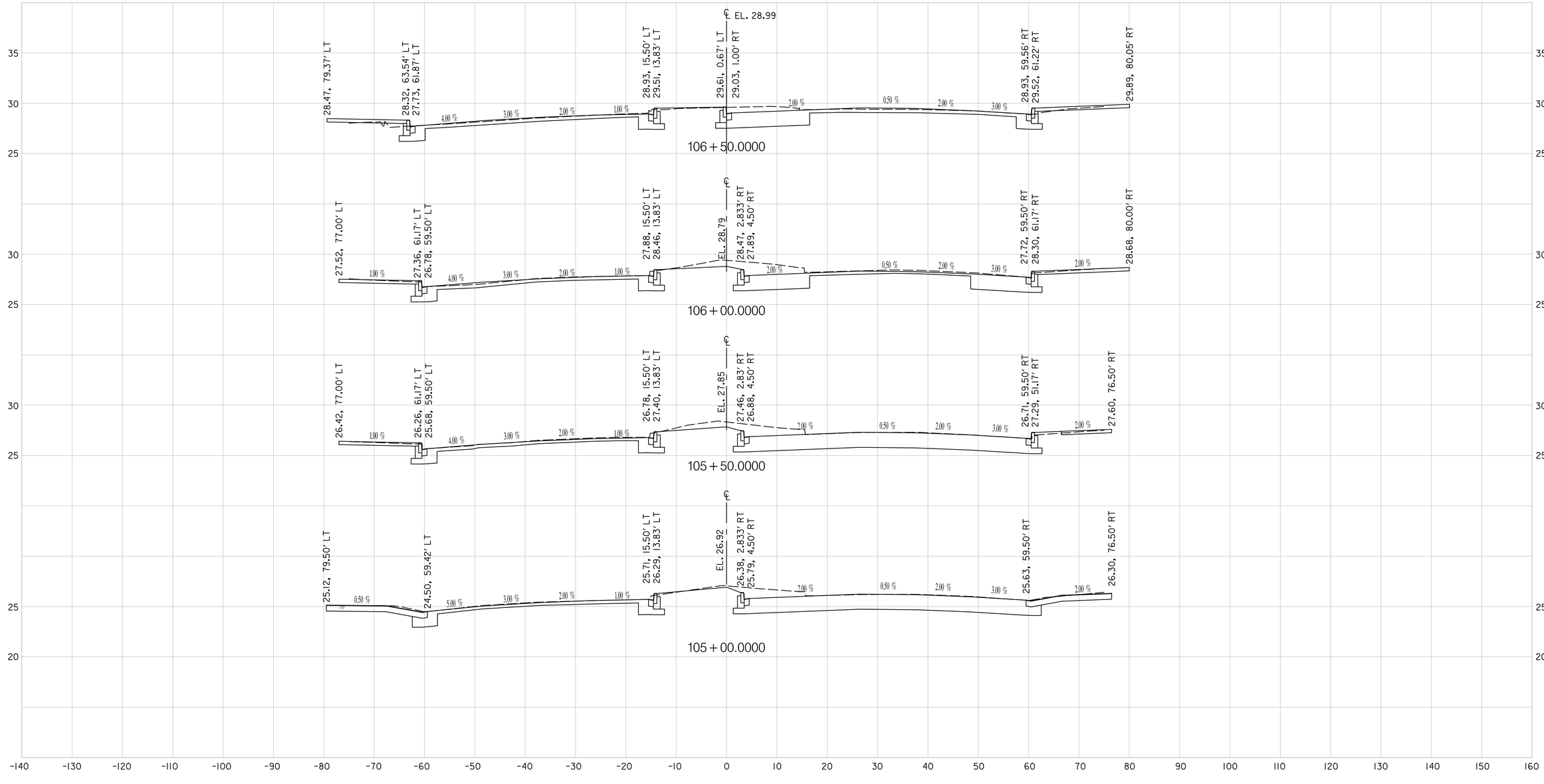
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

PENNSYLVANIA AVENUE S.E.
CROSS SECTIONS

DIVISION CHIEF
DATE
FILE
DWG. 178 OF 197

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	179	197



HC-4

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

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

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DISTRICT OF COLUMBIA
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PROJECT MANAGEMENT DIVISION

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PENNSYLVANIA AVENUE S.E.
CROSS SECTIONS

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

DIVISION CHIEF
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K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\X-Sections\mHC-0000_ED0B1A_Penn.dgn
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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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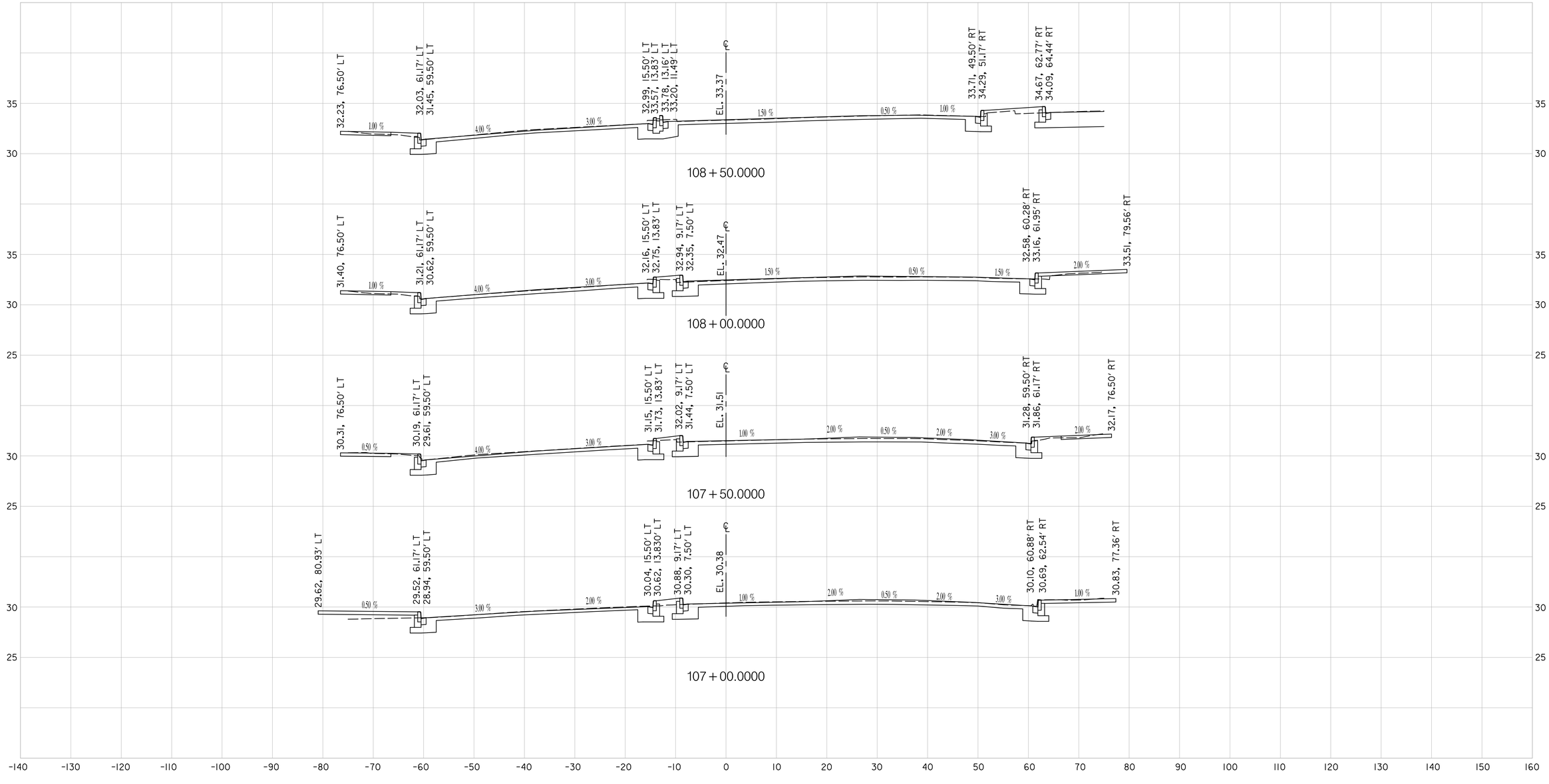

10' 0 10' 20'
HOR: 1" = 10'

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

HC-5

PRAVIN N. SHELADIA
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REGISTERED PROFESSIONAL ENGINEER
DISTRICT OF COLUMBIA

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PROJECT MANAGEMENT DIVISION

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FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
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PENNSYLVANIA AVENUE S.E.
CROSS SECTIONS

PROJECT ENG. K. M.
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DRAWN BY R. R.
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Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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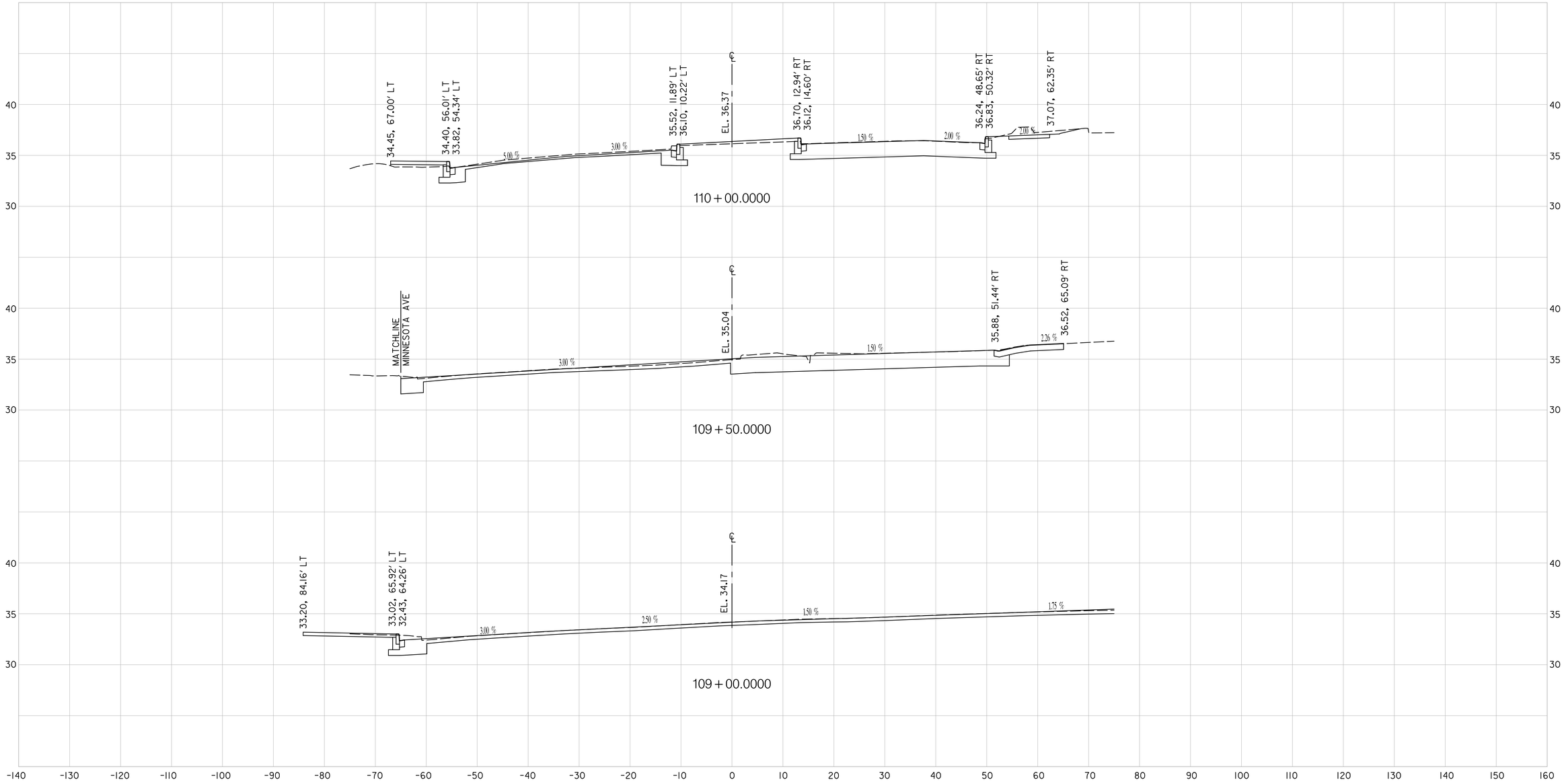

HC-6

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

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

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PENNSYLVANIA AVENUE S.E.
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DWG. 181 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\X-Sections\mHC-0000_EDOBIA_Penn.dgn
Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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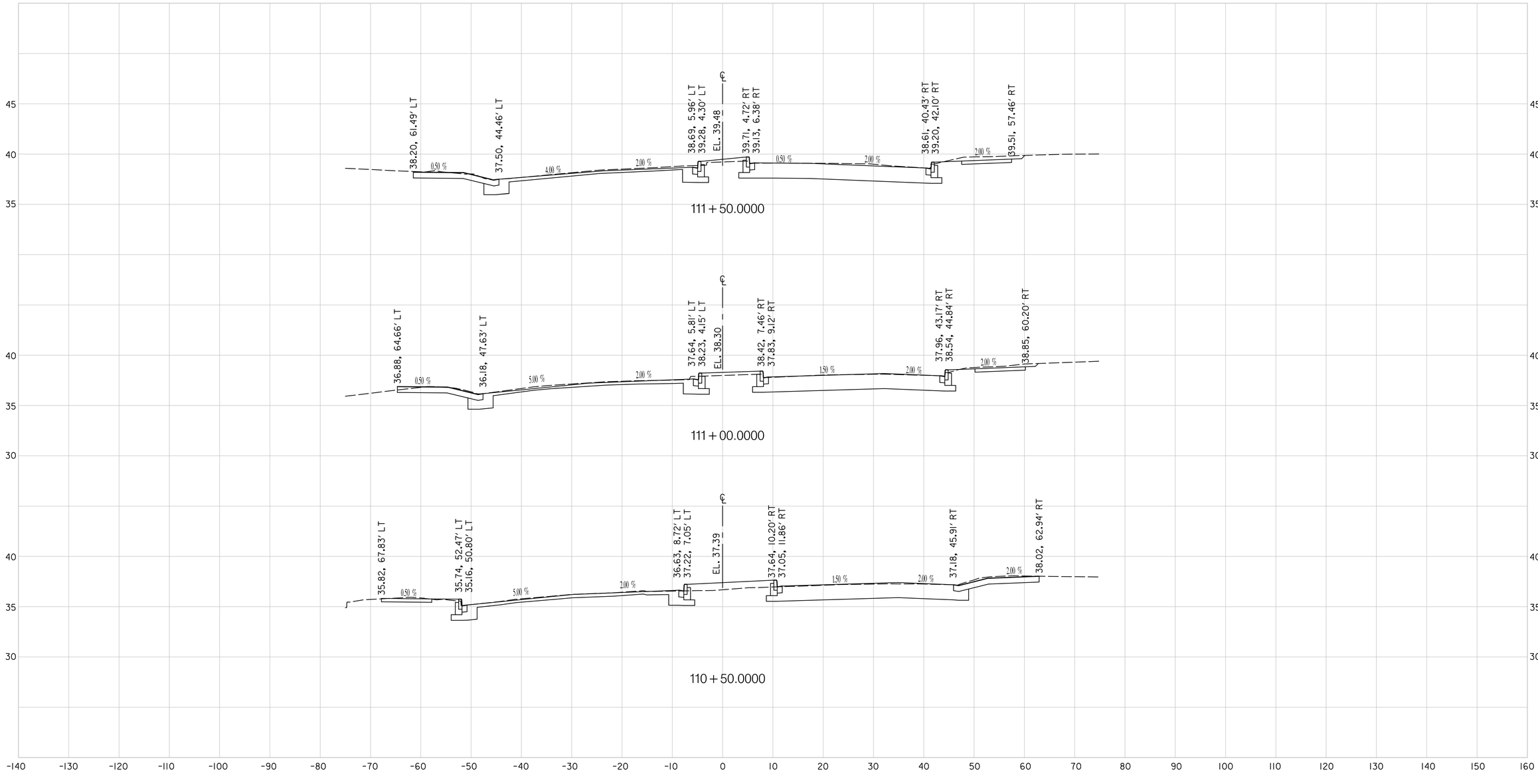

HC-7

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

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

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PENNSYLVANIA AVENUE S.E.
CROSS SECTIONS

PROJECT ENG. K.M.
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DIVISION CHIEF
DATE
FILE
DWG. 182 OF 197

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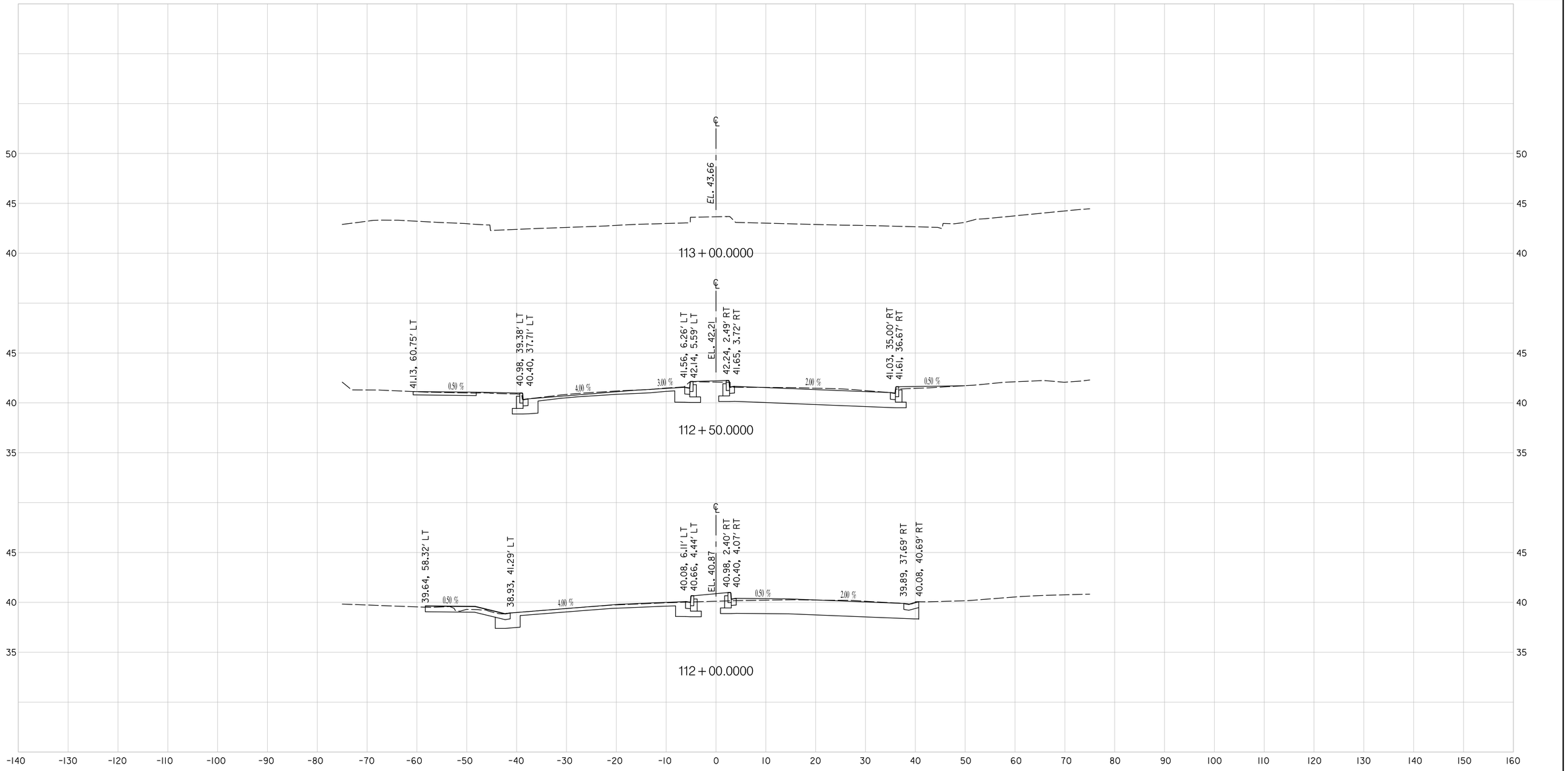
Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	183	197



HOR: 1" = 10'

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WARD 7 & 8 – WASHINGTON, D.C.

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PENNSYLVANIA AVENUE S.E.
CROSS SECTIONS

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DATE
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DWG. 183 OF 197

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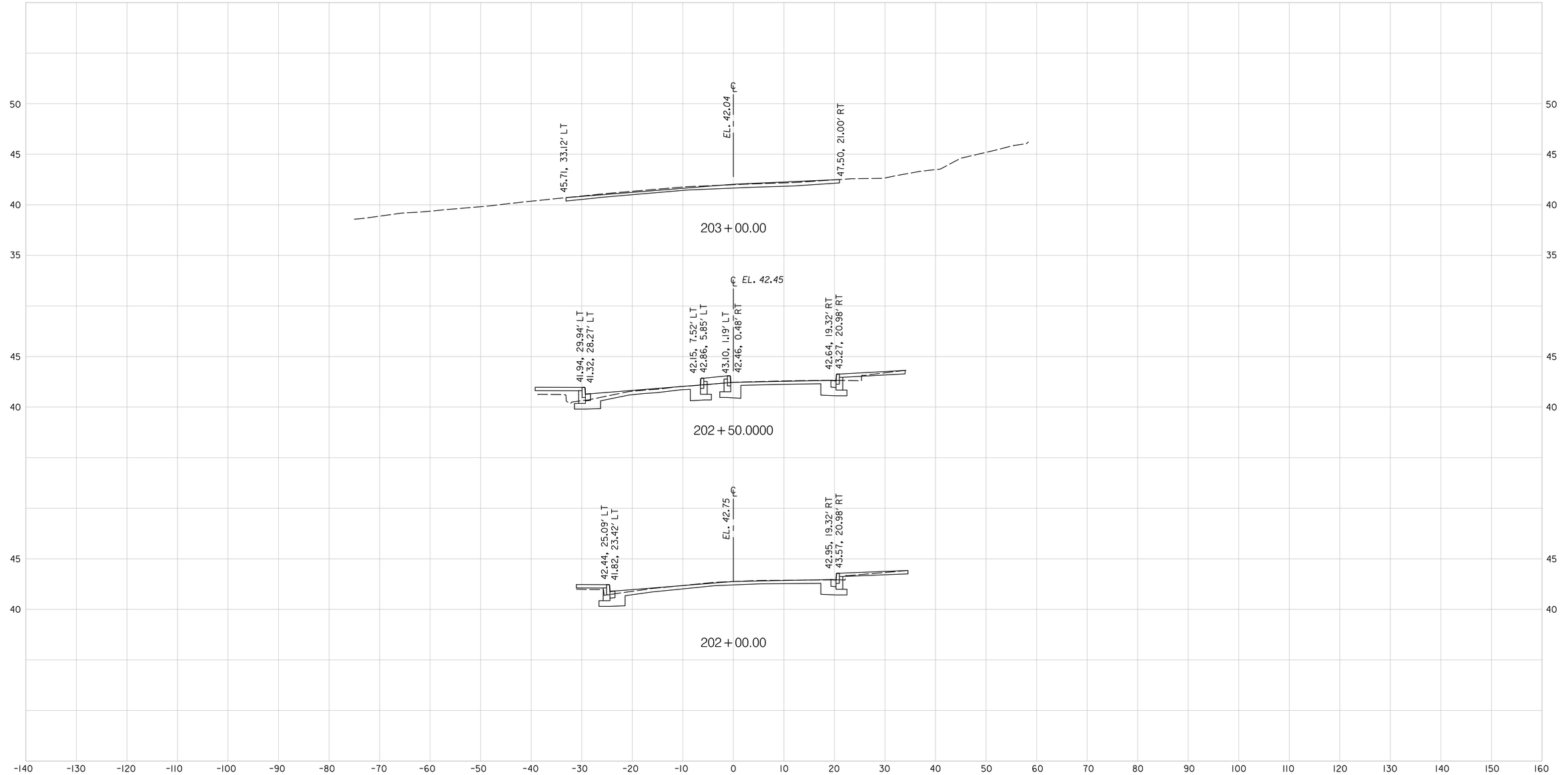
Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	184	197



10' 0 10' 20'
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5' 0 5' 10'
VER: 1" = 5'

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HC-9

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FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

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CHECKED BY
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF

MINNESOTA AVENUE S.E.
CROSS SECTIONS

DATE
FILE
DWG. 184 OF 197

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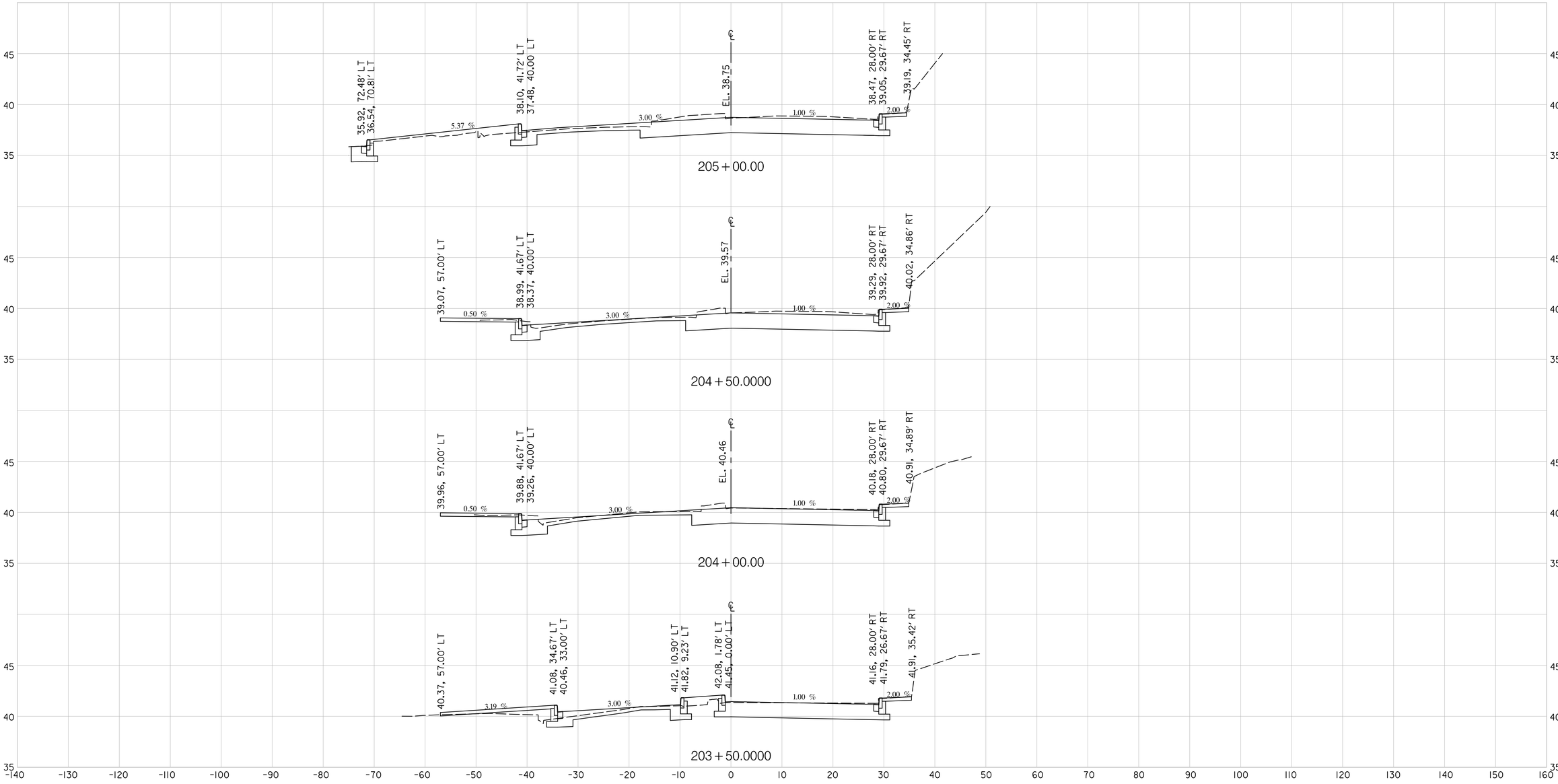
Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	185	197



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Tuesday, September 25, 2018 AT 11:35 AM

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

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

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HC-10

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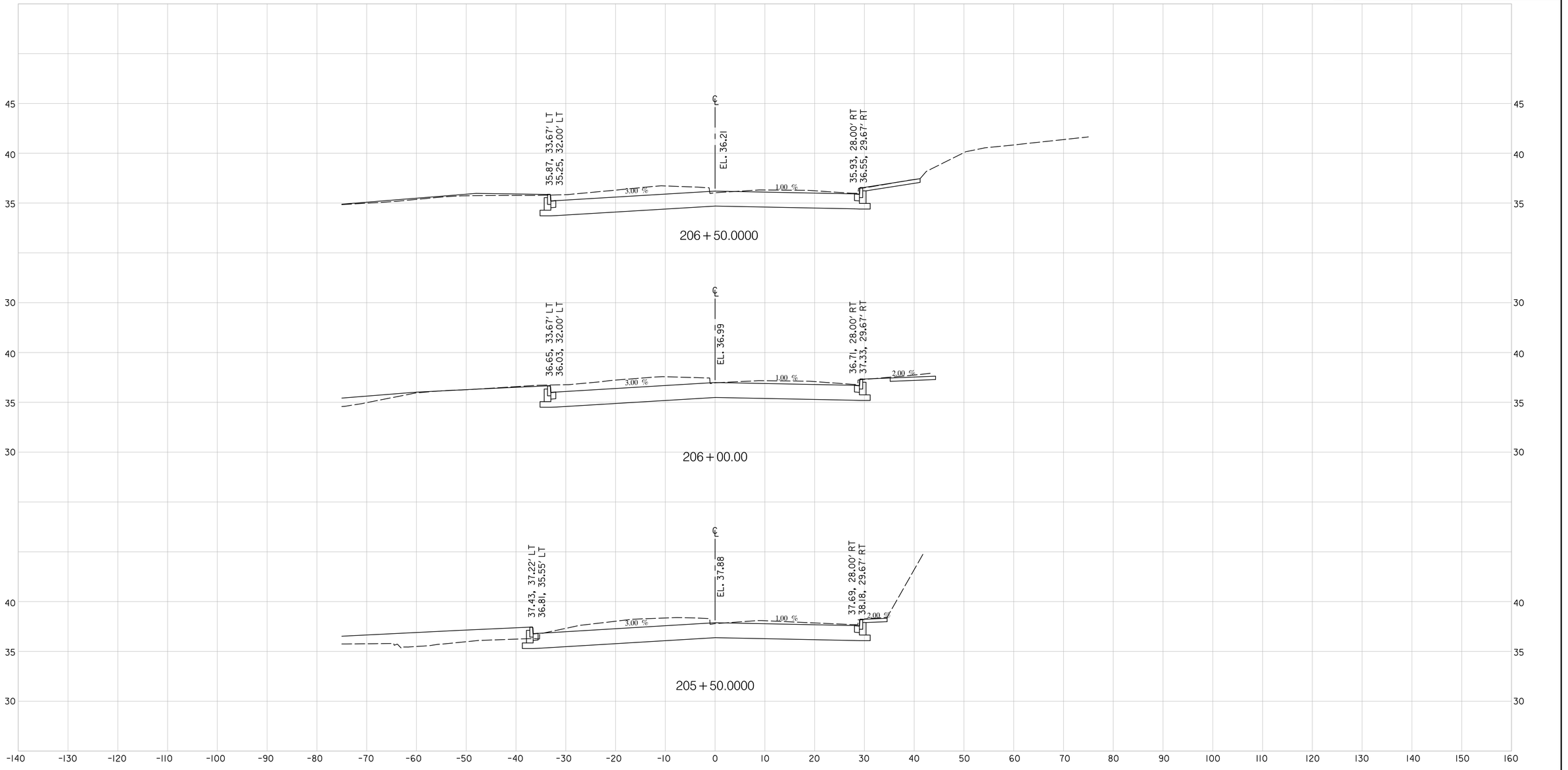
IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

MINNESOTA AVENUE S.E.
CROSS SECTIONS

DIVISION CHIEF
DATE
FILE
DWG. 185 OF 197

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	186	197



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PROJECT MANAGEMENT DIVISION

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

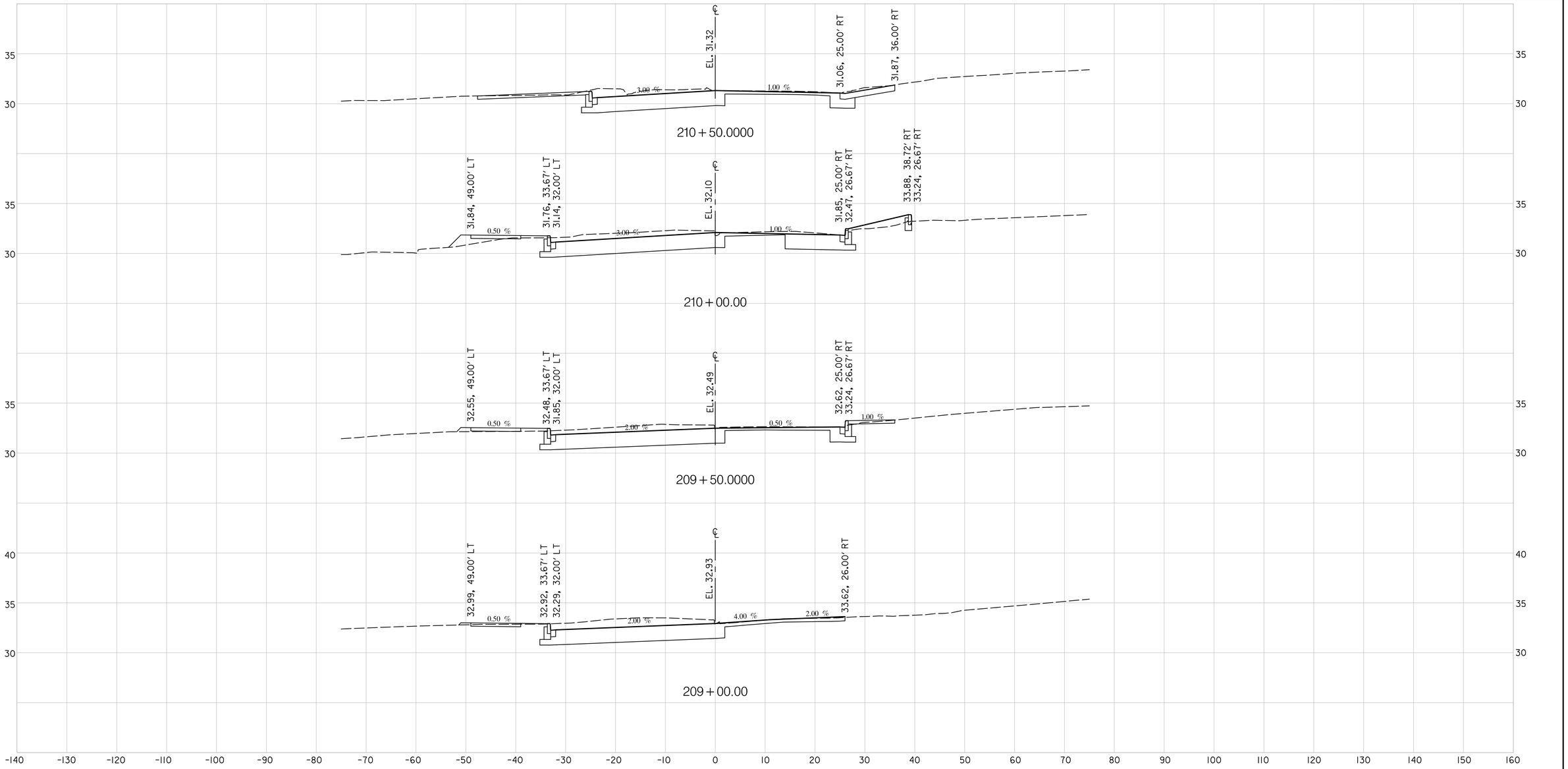
PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

MINNESOTA AVENUE S.E.
CROSS SECTIONS

DIVISION CHIEF
DATE
FILE
DWG. 186 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\X-Sections\mHC-0000_ED0B1A_Minn.dgn
Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	187	197



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Tuesday, September 25, 2018 AT 11:35 AM

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

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

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HC-12

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
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WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
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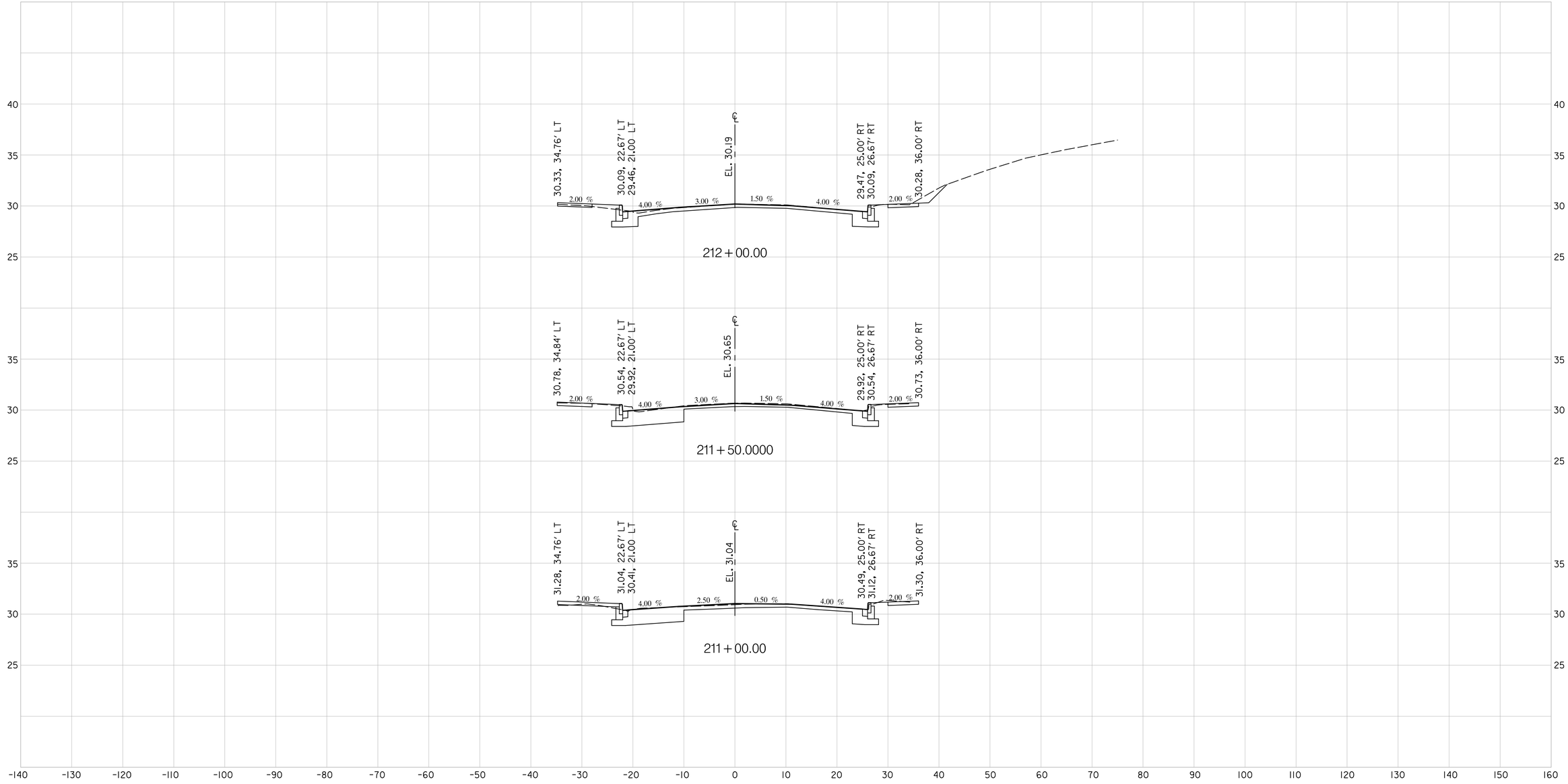
DRAWN BY R. R.
PROJECT MGR. S. S.

DIVISION CHIEF
DATE
FILE
DWG. 187 OF 197

MINNESOTA AVENUE S.E.
CROSS SECTIONS

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	188	197



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NO	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HC-13

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

MINNESOTA AVENUE S.E.
CROSS SECTIONS

DIVISION CHIEF
DATE
FILE
DWG. 188 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\X-Sections\mHC-0000_EDOBIA_Minn.dgn
Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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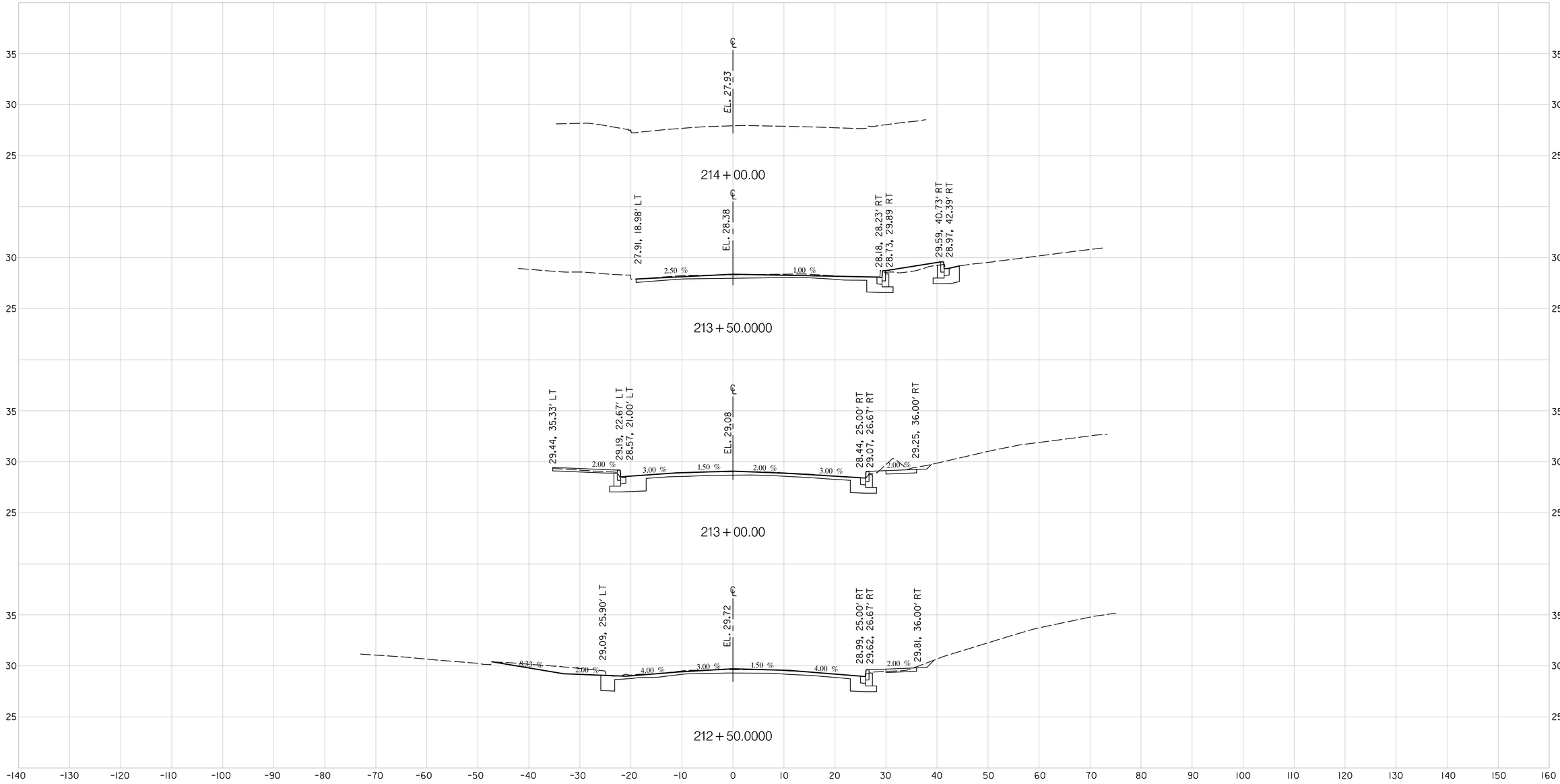

10' 0 10' 20'
HOR: 1" = 10'

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

HC-14

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
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FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF
DATE
FILE
DWG. 189 OF 197

MINNESOTA AVENUE S.E.
CROSS SECTIONS

SHELADIA ASSOCIATES, INC.
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NO	DESCRIPTION	NAME	DATE

REVISIONS

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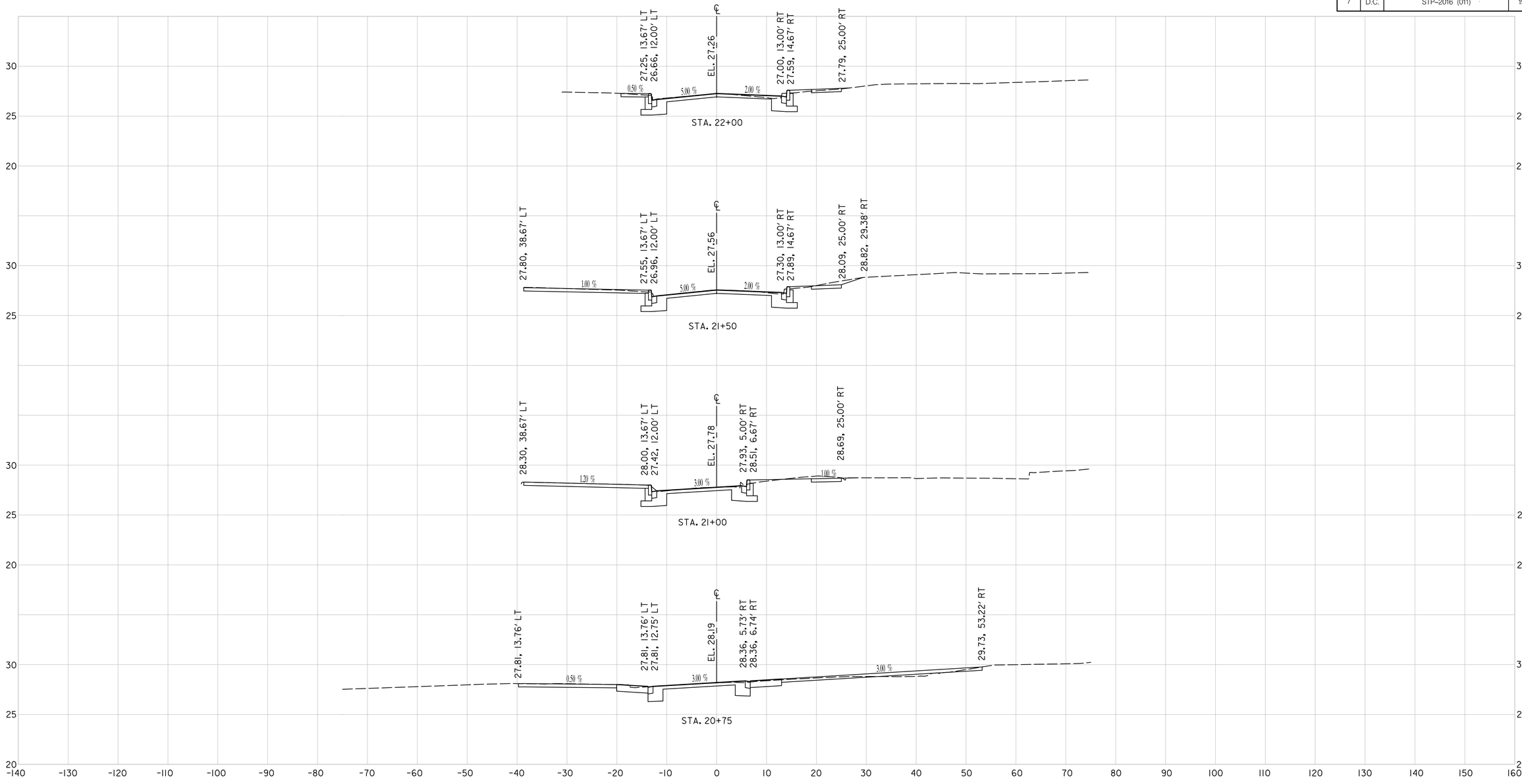

10' 0 10' 20'
HOR: 1" = 10'

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

HC-15

PRAVIN N. SHELADIA
No. 6840
REGISTERED PROFESSIONAL ENGINEER
DISTRICT OF COLUMBIA

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

L'ENFANT SQUARE S.E.
CROSS SECTIONS (NORTH)

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF
DATE
FILE
DWG. 190 OF 197

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

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Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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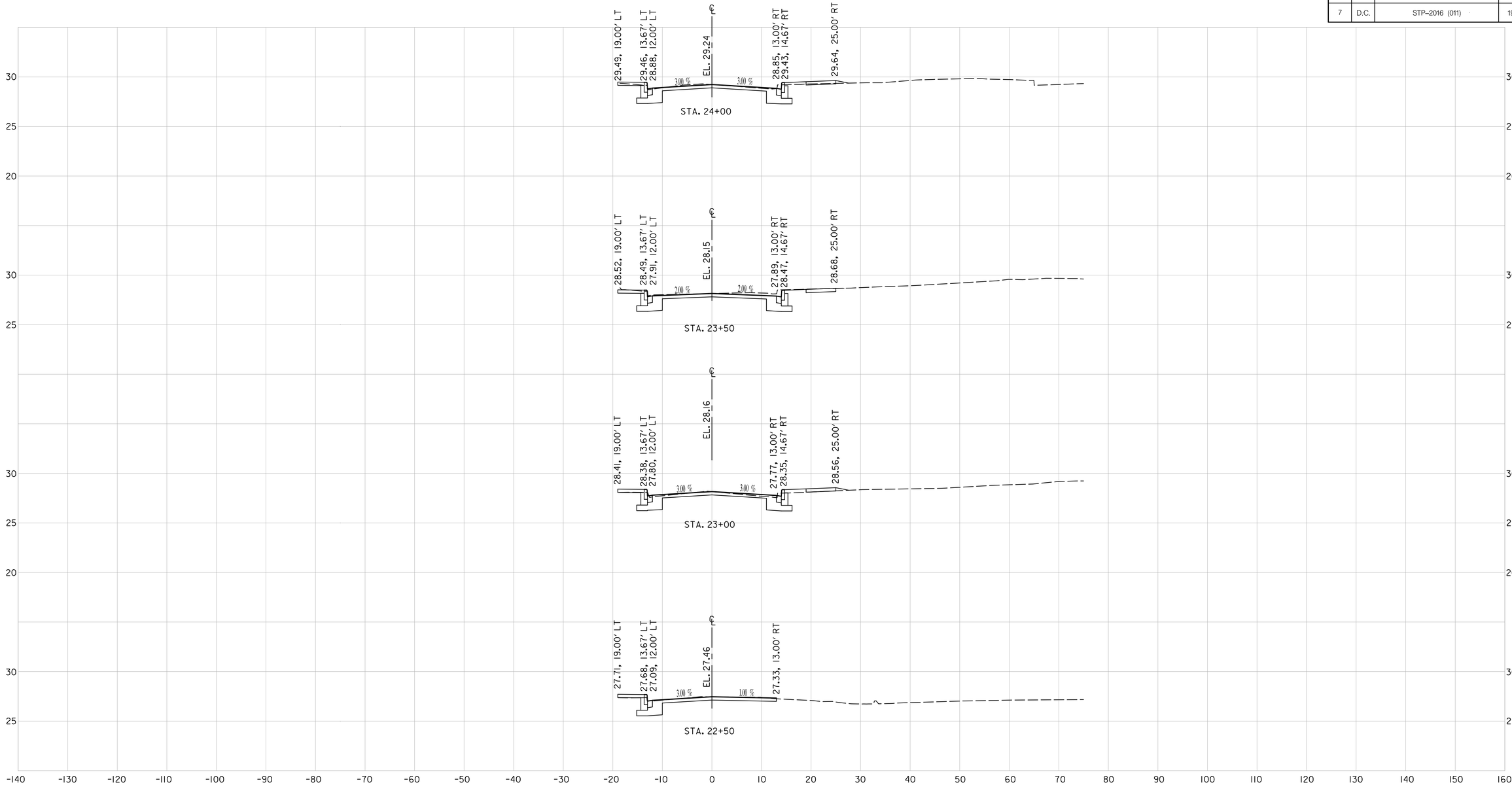

10' 0 10' 20'
HOR: 1" = 10'

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

HC-16

DISTRICT OF COLUMBIA · IRWIN N. SHELADIA · No. 6840 · REGISTERED PROFESSIONAL ENGINEER

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
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FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

L'ENFANT SQUARE S.E.
CROSS SECTIONS (NORTH)

DIVISION CHIEF
DATE
FILE
DWG. 191 OF 197

SHELADIA ASSOCIATES, INC.
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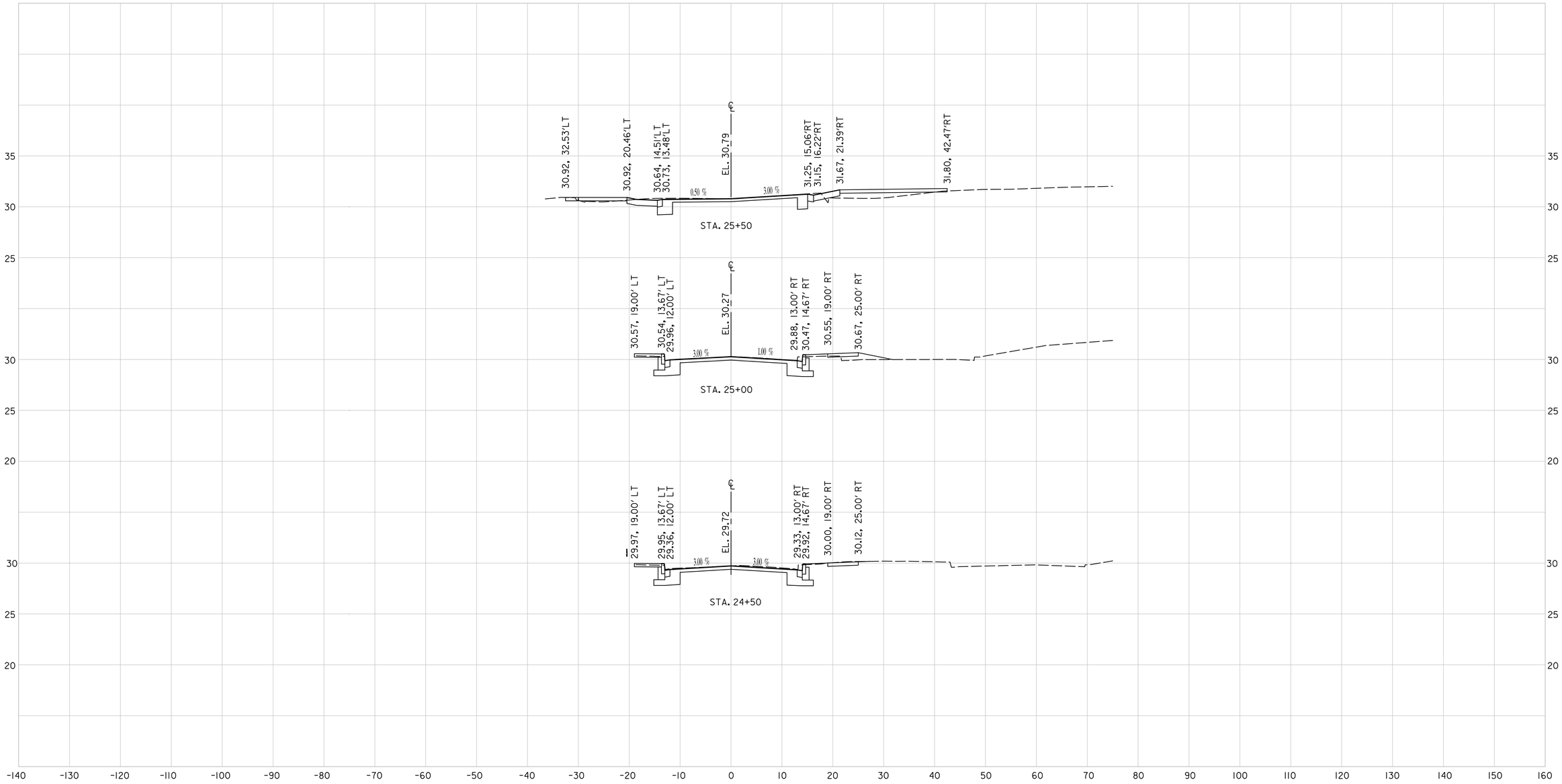

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DISTRICT OF COLUMBIA
PRAWN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

HC-17

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

L'ENFANT SQUARE S.E.
CROSS SECTIONS (NORTH)

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY
DRAWN BY R. R.
PROJECT MGR. S. S.

DIVISION CHIEF

DATE
FILE
DWG. 192 OF 197

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\X-Sections\mHC-0000_ED0BIA_Lenfant.dgn
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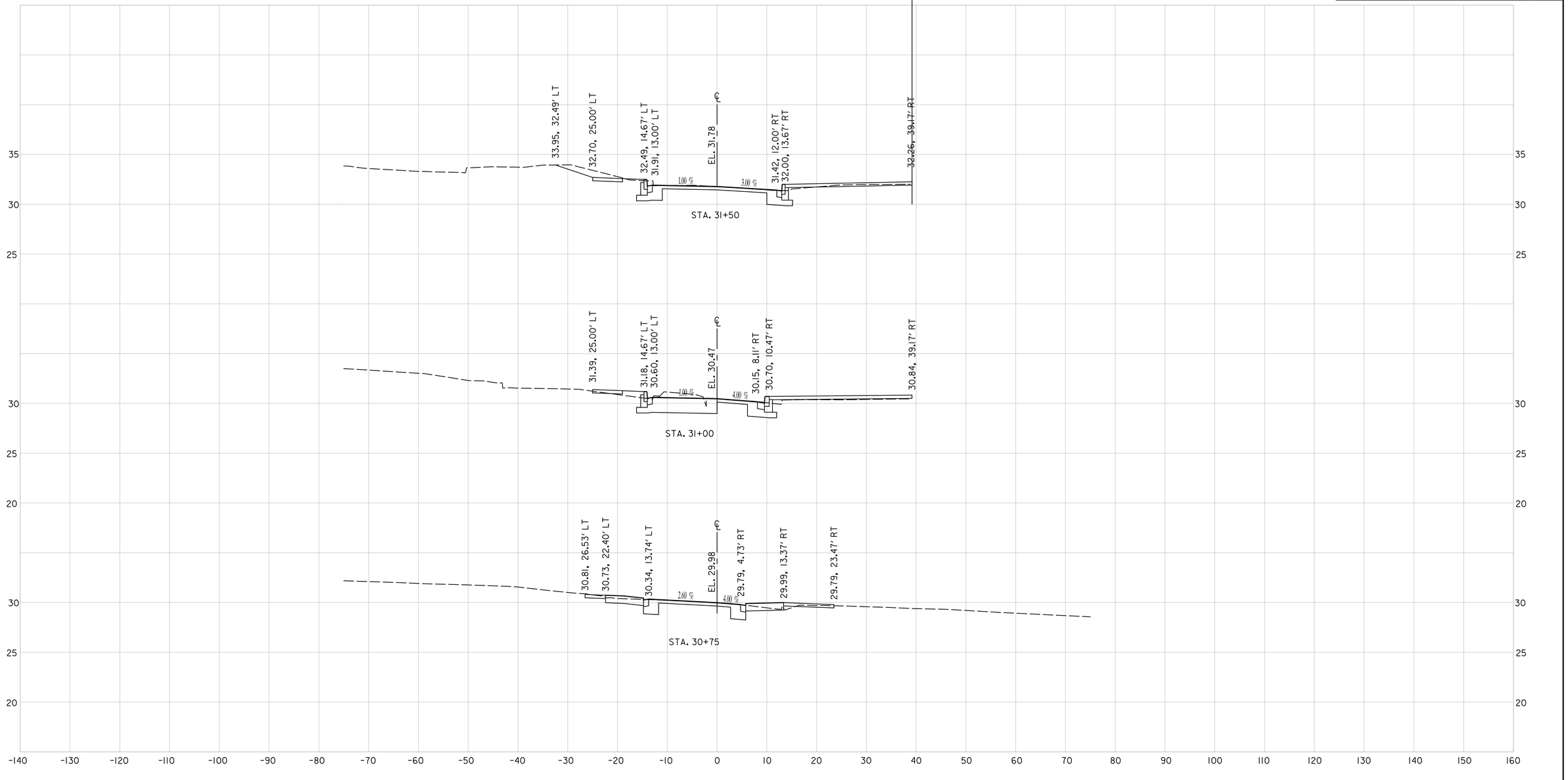

HC-18

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

L'ENFANT SQUARE S.E.
CROSS SECTIONS (SOUTH)

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF
DATE
FILE
DWG. 193 OF 197

SHELADIA ASSOCIATES, INC.
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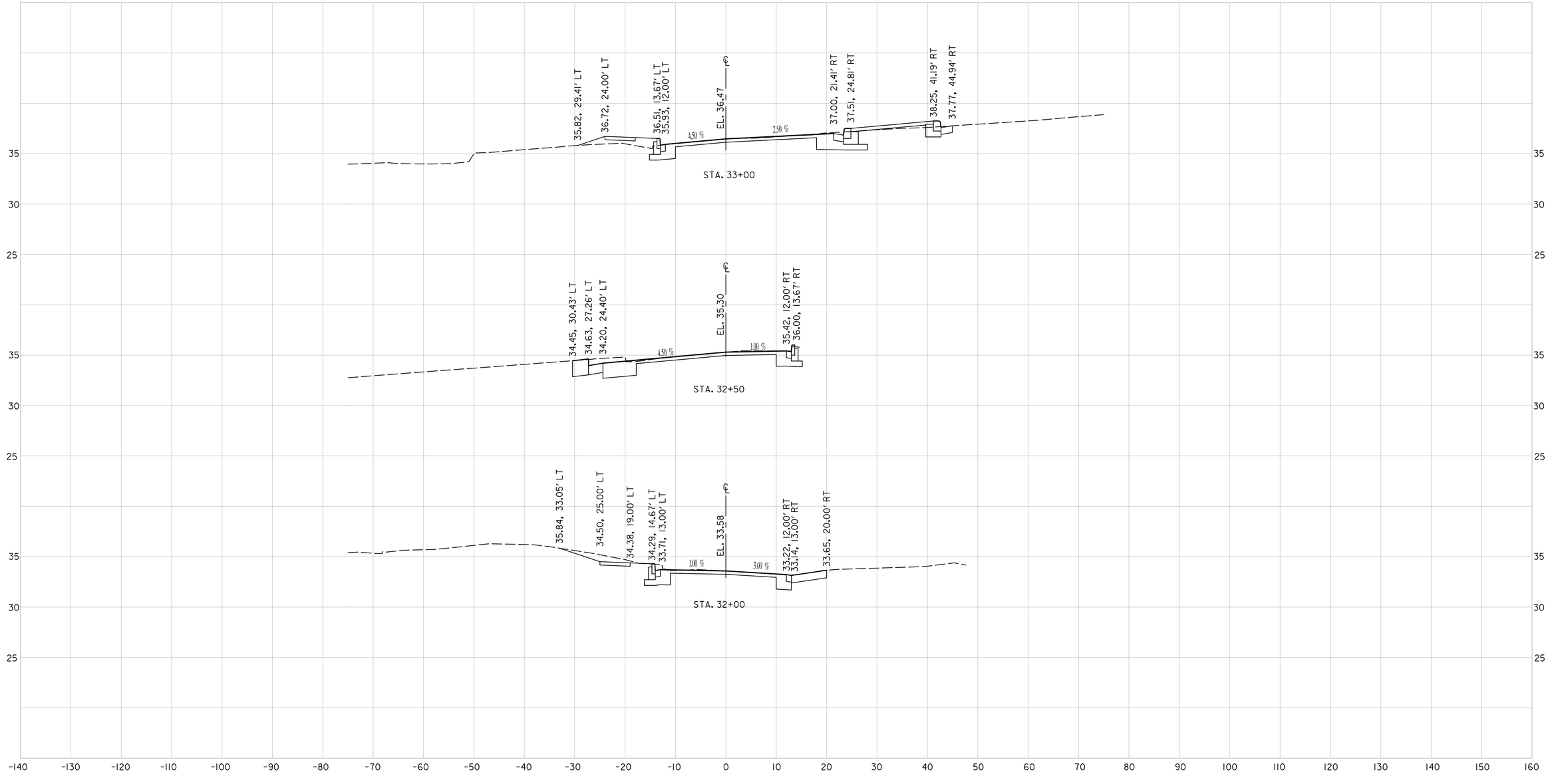
7	D.C.	STP-2016 (011)	194	197



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Tuesday, September 25, 2018 AT 11:35 AM

HC-19

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

L'ENFANT SQUARE S.E.
CROSS SECTIONS (SOUTH)

PROJECT ENG. K.M.
DESIGNED BY M.T.
CHECKED BY
DRAWN BY R.R.
PROJECT MGR. S.S.

DIVISION CHIEF
DATE
FILE
DWG. 194 OF 197

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SHELADIA ASSOCIATES, INC.
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NO	DESCRIPTION	NAME	DATE

REVISIONS

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	195	197

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: B-1
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: B. Jackson
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/22/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/23/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	SAMPLE DEPTH SCALE (ft)	Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	3"of **HOT MIXED ASPHALT CONCRETE (HMAC)**	0.2								1. No water encountered
	9.25" of **PORTLAND CEMENT CONCRETE (PCC)**	0.9								2. Drill Rig used: Acker AD-2
	Brown, moist, very loose to loose, clayey **SAND**, with some gravel, **(FILL)**				I/D	0-2-4	1	DS	12	3. Pavement core collected.
				5	I/D	2-2-2	2	DS	18	4. DCP test performed.
		6.0								5. Bag sample collected from 1.5'-5.0'
	Reddish brown to brown, moist, loose, silty fine **SAND**, little gravel, **(POSSIBLE FILL)**				D	3-5-5	3	DS	16	6. Upon on completion of drilling, the boire is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in.
				10	D	4-4-6	4	DS	18	
	Bottom of Boring at 10.0 ft	10.0								
				15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION _Dry_ ft
AFTER _____ HRS _____ ft
AFTER 24 HRS _____ ft
CAVED AT 6.7 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: B-2
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: B. Jackson
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/23/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/23/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	SAMPLE DEPTH SCALE (ft)	Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	3" of **HOT MIXED ASPHALT CONCRETE (HMAC)**	0.3								1. No water encountered
	8" of **PORTLAND CEMENT CONCRETE (PCC)**	0.9								2. Drill Rig used: Acker AD-2
	Brown, moist, very loose to medium dense, silty fine to medium **SAND**, with some gravel, **(FILL)**				D	3-3-3	1	DS	12	3. Pavement core collected.
				5	D	3-2-1	2	DS	2	4. DCP test performed.
										5. Bag sample collected from 1.5'-5.0'
		8.0			D	5-6-8	3	DS	14	6. Upon on completion of drilling, the boire is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in.
	Reddish brown to brown, moist, stiff, sandy **CLAY**, with little gravel, **(POSSIBLE FILL)**			10	I/D	3-4-5	4	DS	18	
	Bottom of Boring at 10.0 ft	10.0								
				15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION _Dry_ ft
AFTER _____ HRS _____ ft
AFTER 24 HRS _____ ft
CAVED AT 6.5 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: B-3
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: Josh
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/21/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/21/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	SAMPLE DEPTH SCALE (ft)	Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	2.5" of **HOT MIXED ASPHALT CONCRETE (HMAC)**	0.2								1. Water encountered at 7.5'
	7.5" of **PORTLAND CEMENT CONCRETE (PCC)**	0.8								2. Drill Rig used: Acker AD-2
	3" of **CEMENT TREATED AGGREGATE BASE**	1.1								3. Pavement core collected.
	Brown to loght brown, moist, loose, silty fine **SAND**, with little gravel and mica, **(FILL)**				D	5-4-4	1	DS	14	4. DCP test performed.
				5	D	2-3-4	2	DS	12	5. Bag sample collected from 2.0'-5.0'
					D	5-4-2	3	DS	18	6. Upon on completion of drilling, the boire is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in.
		10.0		10	D	5-4-3	4	DS	18	
	Bottom of Boring at 10.0 ft									
				15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION _Dry_ ft
AFTER _____ HRS _____ ft
AFTER 24 HRS _____ ft
CAVED AT 7.0 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: B-4
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: B. Jackson
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/22/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/22/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	SAMPLE DEPTH SCALE (ft)	Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	3.25" of **HOT MIXED ASPHALT CONCRETE (HMAC)**	0.3								1. No water encountered
	8.25" of **PORTLAND CEMENT CONCRETE (PCC)**	1.0								2. Drill Rig used: Acker AD-2
	Reddish brown to gray, moist, loose to medium dense, silty fine **SAND**, with traces of mica, **(POSSIBLE FILL)**				D	4-5-4	1	DS	18	3. Pavement core collected.
				5	D	6-8-9	2	DS	16	4. DCP test performed.
					D	4-6-8	3	DS	14	5. Bag sample collected from 2.0'-5.0'
										6. Upon on completion of drilling, the boire is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in.
		10.0		10	D	4-4-6	4	DS	18	
	Bottom of Boring at 10.0 ft									
				15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION _Dry_ ft
AFTER _____ HRS _____ ft
AFTER 24 HRS _____ ft
CAVED AT 6.2 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: B-5
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: B. Jackson
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/22/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/22/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	SAMPLE DEPTH SCALE (ft)	Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	3.25" of **HOT MIXED ASPHALT CONCRETE (HMAC)**	0.2								1. No water encountered
	8.25" of **PORTLAND CEMENT CONCRETE (PCC)**	1.0								2. Drill Rig used: Acker AD-2
	Brown, moist, loose, clayey **SAND**, with little gravel, **(FILL)**				I/D	2-2-3	1	DS	16	3. Pavement core collected.
		4.0		5	D	2-3-3	2	DS	14	4. DCP test performed.
	Reddish-brown, moist, loose, silty fine **SAND**, **(FILL)**									5. Bag sample collected from 1.5'-5.0'
	Brown, moist, medium dense, sandy **CLAY**, with little gravel, **(POSSIBLE FILL)**	5.5			I/D	7-8-11	3	DS	18	6. Upon on completion of drilling, the boire is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in.
				10	D	6-7-11	4	DS	18	
	Bottom of Boring at 10.0 ft	10.0								
				15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION _Dry_ ft
AFTER _____ HRS _____ ft
AFTER 24 HRS _____ ft
CAVED AT 5.1 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: B-6
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: B. Jackson
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/23/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/23/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	SAMPLE DEPTH SCALE (ft)	Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	12.5" of **HOT MIXED ASPHALT CONCRETE (HMAC)**	1.0								1. Water encountered at 18.5'
	Brown and gray, moist, loose to dense, silty fine to coarse **SAND**, with some gravel, **(FILL)**				D	18-22-9	1	DS	18	2. Drill Rig used: Acker AD-2
		5.0		5	D	1-2-3	2	DS	3	3. Pavement core collected.
	Brown, moist, very loose to medium dense, silty fine to medium **SAND**, with some gravel, **(FILL)**				I/D	0-2-2	3	DS	4	4. DCP test performed.
		10.0		10	I	2-2-2	4	DS	6	5. Bag sample collected from 1.5'-5.0'
	Reddish brown to brown, moist, stiff, sandy **CLAY**, with little gravel, **(POSSIBLE FILL)**									6. Upon on completion of drilling, the boire is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in.
				15	I	0-2	5	DS	14	7. Offset 11.0- ft to East and 7.0-ft to North
				20	I	0-1-2	6	DS	18	
	Bottom of Boring at 20.0 ft	20.0								
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION _Dry_ ft
AFTER _____ HRS _____ ft
AFTER 24 HRS _____ ft
CAVED AT 7.4 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

DISTRICT OF COLUMBIA
IRWIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SB-1

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE
FILE
DWG. 195 OF 197

SOIL BORING LOGS – 1

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Soil Boring Logs\pSB-P001_EDOBIA.dgn
Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP–2016 (011)	196	197

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: B-7
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: Mark
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/24/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/24/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE (ft)	SAMPLE Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	4" of **HOT MIXED ASPHALT CONCRETE (HMAC)** 8.25" of **PORTLAND CEMENT CONCRETE (PCC)** Brown to gray, moist, very loose to loose, clayey **SAND**, with some gravel, **(FILL)**	0.3 1.0		0	I/D	4-3-3	1	DS	14	1. No water encountered 2. Drill Rig used: Mobile B-57 3. Pavement core collected. 4. DCP test performed. 5. Bag sample collected from 1.5'-5.0' 6. Upon on completion of drilling, the bolre is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in.
				5	I/D	2-2-3	2	DS	14	
					I/D	5-4-3	3	DS		
		10.0		10	I/D	1-2-2	4	DS	16	
	Bottom of Boring at 10.0 ft			15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION Dry ft
AFTER ____ HRS ____ ft
AFTER 24 HRS ____ ft
CAVED AT 7.6 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: I-1
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: Mark
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/24/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/24/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE (ft)	SAMPLE Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	6" of **TOPSOIL** Gray, moist, medium stiff, sandy **SILT**, with some gravel and roots, **(FILL)**	0.5		0	D	3-3-5-7	1	DS	18	1. No water encountered 2. Drill Rig used: Mobile B-57 3. Bag sample collected from 1.5'-5.0' 4. Upon on completion of drilling, the bolre is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in. 5. Offset 4.0-ft to East for infiltration boring @ 6.0'
	Reddish brown to gray, moist, loose to medium dense, silty fine **SAND**, **(SM)**	3.0		5	D	6-14-14-12	2	DS	24	
					D	7-7-7-6	3	DS	12	
					D	3-5-5-4	4	DS	20	
		10.0		10	D	4-5-5-5/5"		DS	22	
	Bottom of Boring at 10.0 ft			15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION Dry ft
AFTER ____ HRS ____ ft
AFTER 24 HRS ____ ft
CAVED AT 7.8 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: I-2
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: Mark
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/24/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/24/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE (ft)	SAMPLE Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	5" of **TOPSOIL** Dark brown to brown, moist, loose to medium dense, silty fine to coarse **SAND**, with some gravel and roots, **(FILL)**	0.4		0	D	2-3-6-8	1	DS	14	1. No water encountered 2. Drill Rig used: Mobile B-57 3. Bag sample collected from 1.5'-5.0' 4. Upon on completion of drilling, the bolre is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in. 5. Offset 2.0-ft to East for infiltration boring @ 6.0'
				5	D	5-10-16-13	2	DS	20	
		6.0			D	9-11-13-12	3	DS	16	
	Brown, moist, medium dense, silty fine to coarse **SAND**, **((POSSIBLE FIL))**				D	9-13-13-11	4	DS	18	
		10.0		10	D	5-7-10-9	5	DS	10	
	Bottom of Boring at 10.0 ft			15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION Dry ft
AFTER ____ HRS ____ ft
AFTER 24 HRS ____ ft
CAVED AT 7.3 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: I-3
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: Mark
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/24/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/24/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE (ft)	SAMPLE Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	6" of **TOPSOIL** Brown, moist, medium dense, silty fine to coarse **SAND**, with some gravel, **(FILL)**	0.5 2.0		0	D	2-3-10-8	1	DS	8	1. No water encountered 2. Drill Rig used: Mobile B-57 3. Bag sample collected from 1.5'-5.0' 4. Upon on completion of drilling, the bolre is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in. 5. Offset 4.0-ft to East for infiltration boring @ 7.0'
	Brown, moist, stiff to very stiff, sandy **SILT**, **(FILL)**			5	I/D	5-4-5-7	2	DS	18	
		6.0			I/D	6-7-11-12	3	DS	22	
	Brown, moist, stiff, lean **CLAY**, **((POSSIBLE FIL))**				I/D	6-6-7-8	4	DS	20	
		10.0		10	I/D	5-5-8-8	5	DS	20	
	Bottom of Boring at 10.0 ft			15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION Dry ft
AFTER ____ HRS ____ ft
AFTER 24 HRS ____ ft
CAVED AT 7.9 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Sheladia Associates — Boring #: I-4
Project Name: Improvement of Pennsylvania Avenue and Minnesota Avenue Intersection — Job #: 16-00061
Location: Southeast, DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: Mark
Surf. Elev.: — Hammer Drop: 30 in — Rock Core Dia: N/A — Inspector: D. Abebe
Date Started: 2/24/17 — Spoon Size: 2 in — Boring Method: HSA — Date Completed: 2/24/17

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE (ft)	SAMPLE Cond	Blows/6"	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	4" of **TOPSOIL** Dark brown, moist, loose to medium dense, silty fine to coarse **SAND**, with some gravel @ 2.0'-4.0'. **(FILL)**	0.3		0	I/D	2-3-4-5	1	DS	18	1. No water encountered 2. Drill Rig used: Mobile B-57 3. Bag sample collected from 1.5'-5.0' 4. Upon on completion of drilling, the bolre is backfilled with auger cuttings upto 1-ft below the surface and patched with Quikrete in the top 12-in. 5. Offset 2.0-ft to East for infiltration boring @ 6.0'
					I/D	18-10-8-8	2	DS	12	
	Brown to dark brown, moist, medium stiff, sandy **CLAY**, with some gravel, **(FILL)**	4.0		5	I/D	3-3-3-4	3	DS	18	
					I/D	2-2-3-3	4	DS	6	
	Dark brown, moist, very loose, silty fine **SAND**, with some gravel, **(FILL)**	8.0			D	2-2-2-2	5	DS	16	
		10.0		10						
	Bottom of Boring at 10.0 ft			15						
				20						
				25						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION Dry ft
AFTER ____ HRS ____ ft
AFTER 24 HRS ____ ft
CAVED AT 7.7 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

DISTRICT OF COLUMBIA — IRWIN N. SHELADIA — No. 6840 — REGISTERED PROFESSIONAL ENGINEER

SB-2

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E.
& MINNESOTA AVE., S.E. INTERSECTION
FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E.
WARD 7 & 8 – WASHINGTON, D.C.

PROJECT ENG. K. M.
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

SOIL BORING LOGS – 2

DIVISION CHIEF
DATE
FILE
DWG. 196 OF 197

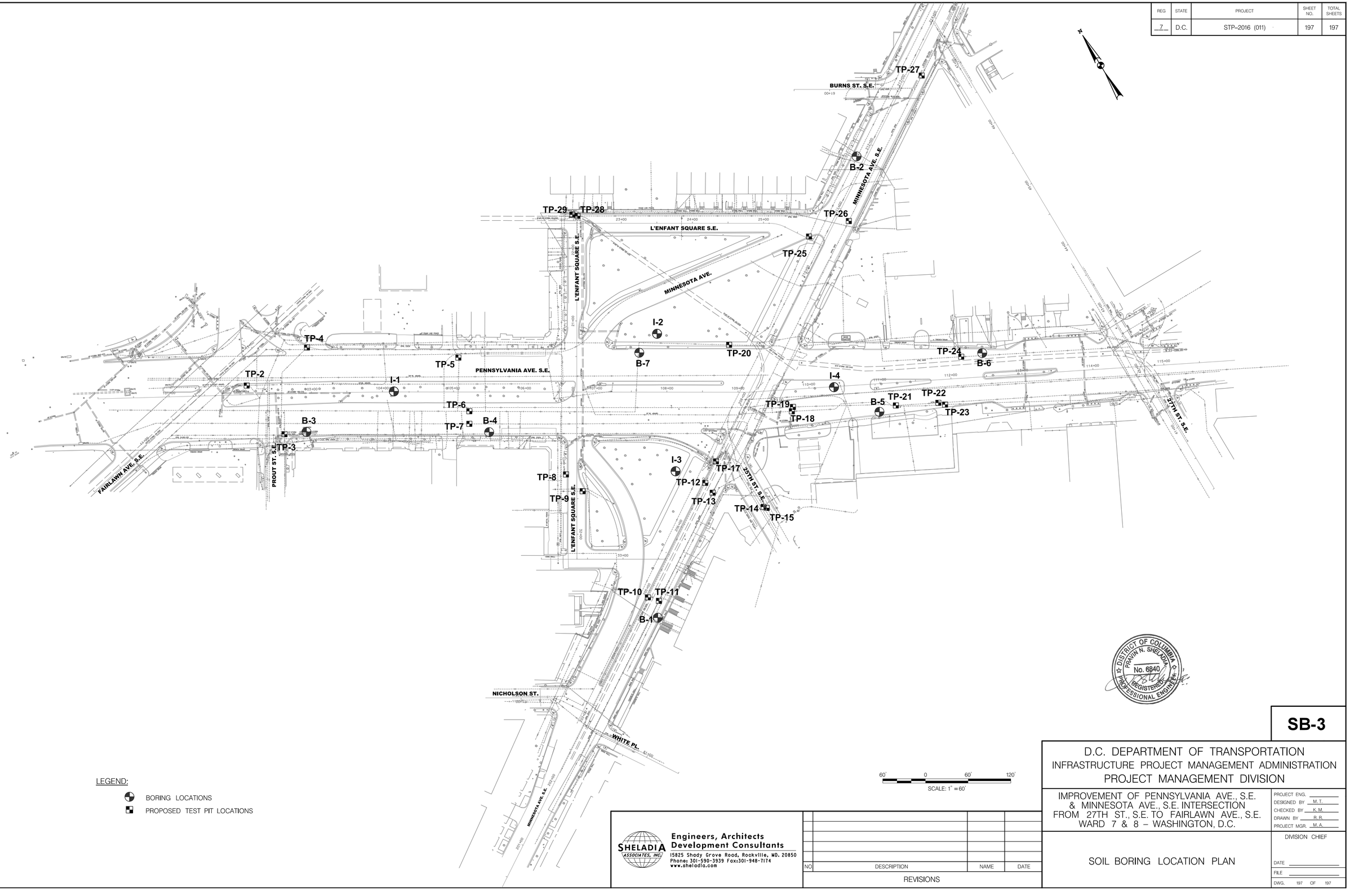
SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

K:\DDOT\Pennsylvania Ave SE and Minnesota Ave SE\07 Design\DGN\Sheets\Soil Boring Logs\pSB-P002-ED0BIA.dgn
Tuesday, September 25, 2018 AT 11:35 AM

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
7	D.C.	STP-2016 (011)	197	197



LEGEND:

- BORING LOCATIONS
- PROPOSED TEST PIT LOCATIONS

DISTRICT OF COLUMBIA
PRAVIN N. SHELADIA
No. 6840
REGISTERED
PROFESSIONAL ENGINEER

SB-3

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

IMPROVEMENT OF PENNSYLVANIA AVE., S.E. & MINNESOTA AVE., S.E. INTERSECTION FROM 27TH ST., S.E. TO FAIRLAWN AVE., S.E. WARD 7 & 8 – WASHINGTON, D.C.

SOIL BORING LOCATION PLAN

PROJECT ENG. ____
DESIGNED BY M. T.
CHECKED BY K. M.
DRAWN BY R. R.
PROJECT MGR. M. A.

DIVISION CHIEF
DATE ____
FILE ____
DWG. 197 OF 197

SHELADIA ASSOCIATES, INC.
Engineers, Architects
Development Consultants
15825 Shady Grove Road, Rockville, MD. 20850
Phone: 301-590-3939 Fax:301-948-7174
www.sheladia.com

NO	DESCRIPTION	NAME	DATE

REVISIONS

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Tuesday, September 25, 2018 AT 11:35 AM