REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		1	75

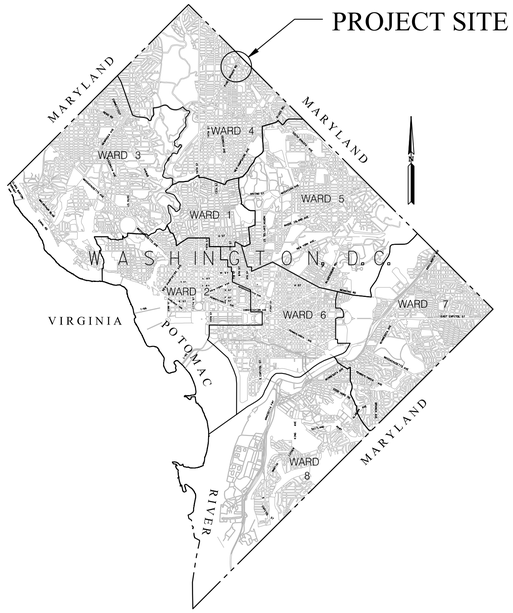
DISTRICT OF COLUMBIA

DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED

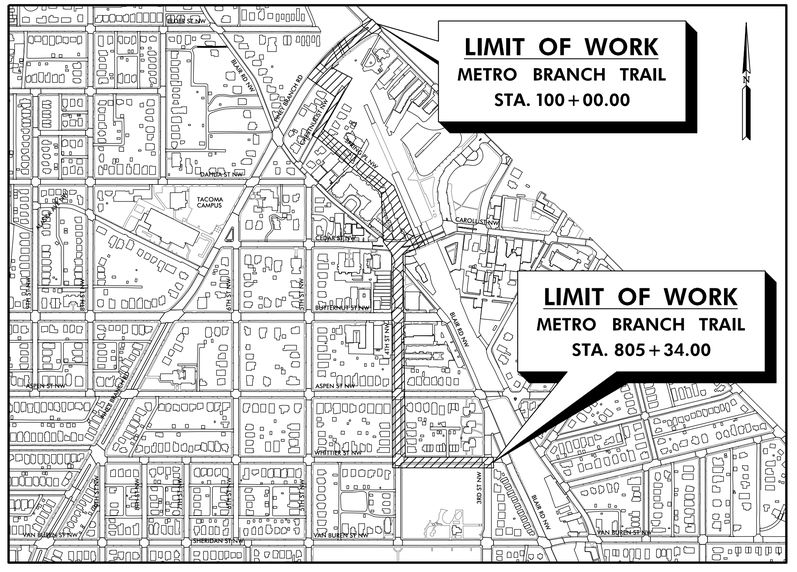
METROPOLITAN BRANCH TRAIL

FROM BLAIR RD NW TO PINEY BRANCH RD NW



VICINITY MAP

LENGTH OF PROJECT = 0.73 MILES



LOCATION MAP

SCALE: 1"=500'

500' 0 500' 1000'

SCALE: 1"=500'

DESIGN DESIGNATION						
ROADWAY	PINEY BRANCH RD.	CHESTNUT ST.	SPRING PL.	CEDAR ST.	4TH ST.	WHITTIER ST.
CONTROL OF ACCESS	LIMITED	UNLIMITED	UNLIMITED	UNLIMITED	UNLIMITED	UNLIMITED
ADT (2022 EST.)	9,375	NOT AVAILABLE	NOT AVAILABLE	6,970	1,070	2,320
ADT (2045 EST.)	10,030	NOT AVAILABLE	NOT AVAILABLE	7,450	1,140	2,480
DESIGN HOURLY VOLUME (2045 EST.)	1,000	NOT AVAILABLE	NOT AVAILABLE	745	115	250
DISTRIBUTION (NB/SB, EB/WB)	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	EB: 70% WB: 30%	SB: 100%	EB: 50% WB: 50%
TRUCK %	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	EB: 2% WB: 2% NB: 2% SB: 2%	EB: 2% WB: 2% NB: 2% SB: 2%
POSTED SPEED	30 MPH	25 MPH	25 MPH	25 MPH	25 MPH	25 MPH
DESIGN SPEED	30 MPH	25 MPH	25 MPH	25 MPH	25 MPH	25 MPH
CLASSIFICATION	MINOR ARTERIAL	LOCAL STREET	LOCAL STREET	LOCAL STREET	LOCAL STREET	LOCAL STREET

INDEX OF SHEETS

30% DESIGN PLANS
OCTOBER 2022
NOT FOR CONSTRUCTION

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MKSK

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL:

PROGRAM MANAGER IPMA /CHIEF, IPMD SUPPORT DIVISION

APPROVED:

CHIEF TRANSPORTATION ENGINEER

DATE:

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	2	75

STANDARD SYMBOLS

EXISTING SANITARY SEWER MANHOLE
EXISTING STORMDRAIN MANHOLE
EXISTING COMBINED SANITARY & STORMDRAIN 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
PROPOSED SANITARY SEWER OR WATER MANHOLE
EXISTING FIRE HYDRANT
PROPOSED FIRE HYDRANT
PROPOSED WATER VALVE, GATE VALVE
EXISTING CULVERT WITH DIRECTION OF FLOW
PROPOSED CULVERT WITH DIRECTION OF FLOW
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 SIGNLE CATCH BASIN
PROPOSED DOUBLE CATCH BASIN
PROPOSED TRIPLE CATCH BASIN
PROPOSED SINGLE CATCH BASIN WITH GRATE
PROPOSED DOUBLE CATCH BASIN WITH GRATE
CHECK DAM
TREE PROTECTION
INLET PROTECTION
EXISTING SANITARY SEWER, COMBINED SEWER, TORMDRAIN, 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

EXISTING RAILROAD
EXISTING STREET CAR TRACKS
PROPOSED LIMIT OF RECONSTRUCTION
PROPOSED LIMIT OF WORK
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 GUY WIRE ANCHOR
EXISTING DIRECTION OF TRAFFIC
PROPOSED DIRECTION OF TRAFFIC
EXISTING SIGN AND POST
PROPOSED SIGN AND POST
EXISTING PARKING METER
EXISTING FIRE ALARM BOX
EXISTING POLICE CALL BOX
EXISTING TRASH /WASTER CAN
PROPOSED TRASH /WASTER CAN
EXISTING WHEELCHAIR /BICYCLE RAMP
PROPOSED WHEELCHAIR /BICYCLE RAMP
EXISTING BOLLARD OR POST
MAIL BOX
LOCATION OF TEST BORING WITH NUMBER
LOCATION OF TEST PIT WITH NUMBER
BENCH MARK WITH NUMBER
TRIANGULATION OR CONTROL POINT
BREAK IN GRADE
STATION EQUATION
REVISION WITH NUMBER
EXISTING SPOT ELEVATION AND /OR FEATURE (0.10 SLANT TEXT FOR 20' SCALE)
PROPOSED SPOT ELEVATION AND /OR FEATURE (0.12 TEXT FOR 20' SCALE)
(TOP OF CURB /WALL) (EXIST. AND /OR PROP.)
(BOTTOM OF CURB /WALL)
EXISTING BASE LINE OR CENTER LINE
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 GUARDRAIL – DOUBLE FACE
PROPOSED GUARDRAIL – DOUBLE FACE
EXISTING GUARDRAIL – SINGLE FACE
PROPOSED GUARDRAIL – SINGLE FACE

PROPOSED 3 SECTION TRAFFIC SIGNAL
PROPOSED 4 SECTION TRAFFIC SIGNAL
PROPOSED 5 SECTION TRAFFIC SIGNAL
EXISTING 3 SECTION TRAFFIC SIGNAL
EXISTING 4 SECTION TRAFFIC SIGNAL
EXISTING 5 SECTION TRAFFIC SIGNAL
EXISTING LUMINAIRE AND SUPPORT ARM INDICATES DIRECTION OF LIGHT
PROPOSED LUMINAIRE AND SUPPORT ARM INDICATES DIRECTION OF LIGHT
REMOVE INDICATED TRAFFIC SIGNAL OR STREETLIGHT UNIT
EXISTING PEDESTRIAN SIGNAL
PROPOSED PEDESTRIAN SIGNAL
EXISTING TRAFFIC SIGNAL CONTROL BOX
PROPOSED TRAFFIC SIGNAL CONTROL BOX
EXISTING TRAFFIC SIGNAL COMMUNICATION CABINET
PROPOSED TRAFFIC SIGNAL COMMUNICATION CABINET
EXISTING SL /TS CONDUIT – SL–STREETLIGHT, TS–TRAFFIC SIGNAL
PROPOSED 2" PVC CONDUIT
PROPOSED 4" PVC CONDUIT
PROPOSED 2" & 4" PVC CONDUITS
PROPOSED 2–4" PVC CONDUITS
PROPOSED 4–4" PVC CONDUITS
PROPOSED LOCATION FOR PEPCO POWER CONNECTION
EXISTING 6'X6'X6' ELECTRICAL MANHOLE
PROPOSED 6'X6'X6' ELECTRICAL MANHOLE
EXISTING 4'X4'X6' ELECTRICAL MANHOLE
PROPOSED 4'X4'X6' ELECTRICAL MANHOLE
EXISTING 4'X4'X4' ELECTRICAL MANHOLE
PROPOSED 4'X4'X4' ELECTRICAL MANHOLE
EXISTING 3'X3'X3' ELECTRICAL MANHOLE
PROPOSED 3'X3'X3' ELECTRICAL MANHOLE
EXISTING #14 STREETLIGHT POLE
PROPOSED #14 STREETLIGHT POLE
EXISTING #16 STREETLIGHT POLE
PROPOSED #16 STREETLIGHT POLE
EXISTING #18 STREETLIGHT POLE
PROPOSED #18 STREETLIGHT POLE
EXISTING TWIN 20 STREETLIGHT POLE
PROPOSED TWIN 20 STREETLIGHT POLE
EXISTING 5A STREETLIGHT POLE
PROPOSED 5A STREETLIGHT POLE
EXISTING PENDANT POLE
PROPOSED PENDANT POLE
EXISTING PEPCO WOOD POLE
PROPOSED PEPCO WOOD POLE
EXISTING DC WOOD POLE
PROPOSED DC WOOD POLE
EXISTING 20 FOOT TRAFFIC SIGNAL POLE
PROPOSED 20 FOOT TRAFFIC SIGNAL POLE
TRAFFIC SIGNAL(S) MOUNTED ON STREETLIGHT POLE
PROPOSED BICYCLE RACK

ABBREVIATIONS

AASHTO ..... American Association of State Highway Transportation Officials
ADT..... Average Daily Traffic
APPROX. ..... Approximate
℄ or BL ..... Baseline
BIT. ..... Bituminous
B.C. ..... Bituminous Concrete
B.M. ..... Bench Mark
BOT. ..... Bottom
C.C. ..... Center of Curve
CAP ..... Corrugated Aluminum Pipe
CAPA ..... Corrugated Aluminum Pipe Arch
CATV..... Cable Television
℄ or CL ..... Centerline
CL. ..... Class
CLF..... Chainlink Fence
CMP ..... Corrugated Metal Pipe
C.O..... Cleanout
COMB. ..... Combination
CONC. ..... Concrete
CONSTR. ..... Construction
CORR. ..... Correction
CPP–S ..... Corrugated Polyethylene Pipe – Type 'S'
CSP..... Corrugated Steel Pipe – Aluminized Type 2
CSPA ..... Corrugated Steel Pipe Arch – Aluminized Type 2
DC ..... Degree of Curve
D.H.V. ..... Design Hourly Volume
D.I. ..... Drop Inlet
DIA. ..... Diameter
D.O..... Double Opening
E ..... East
E ..... Electric
E ..... External Distance
EA ..... Each
EB ..... Eastbound
ELEV..... Elevation
ES..... End Section
EX or EXIST.. Existing
FT ..... Feet
F or FL ..... Flowline
F.H. ..... Fire Hydrant
G ..... Gas
G.V. ..... Gas Valve
H.B. ..... Handbox
HDPE ..... High Density Polyetheylene
HDWL..... Headwall
HERCP..... Horizontal Ellipitical Reinforced Concrete Pipe
HP ..... High Point
IN ..... Inch
I.S.T ..... Inlet Sediment Trap
INV. ..... Invert
J.B. ..... Junction Box
K ..... K Inlet
L ..... Length
LF ..... Linear Feet
L.L. ..... Liquid Limit
LP ..... Low Point
L.P. ..... Light Pole
LT..... Left
MAC..... Macadam
MAX..... Maximum
M.D.D..... Maximum Dry Content
MOD..... Modified
MIN. ..... Minimum
NB ..... Northbound
NE ..... Northeast
N.P. ..... Non–Plastic
O.C. ..... On Center
OHE ..... Overhead Electric
O.M..... Optimum Moisture
PC ..... Point of Curvature
RW or R/W.... Right of Way
RCP..... Reinforced Concrete Pipe
RCPP..... Reinforced Concrete Pressure Pipe
PCC ..... Point of Compound Curvature
P/C ..... Point of Crown
P/GE ..... Profile Grade Elevation
P.G.E. ..... Profile Ground Elevation
P.G.L. ..... Profile Grade Line
P/GL ..... Profile Ground Line
P/R ..... Point of Rotation
P.I. ..... Point of Intersection
POC ..... Point On Curve
POT ..... Point On Tangent
PPWP ..... Polyvinyl Chloride Profile Wall Pipe
PROP ..... Proposed
PRC ..... Point of Reverse Curve
PT ..... Point
PT ..... Point of Tangency
PVC ..... Point of Vertical Curve
PVC..... Polyvinyl Chloride
PVI ..... Point of Vertical Intersection
PVRC ..... Point of Vertical Reverse Curve
PVT..... Point of Vertical Tangency
R ..... Radius
RT ..... Right
R.Q.D. ..... Rock Quality Designation
R.M. ..... Rootmat
S ..... South
SAN. ..... Sanitary Sewer
SB or S/B ..... Southbound
S.D. ..... Storm Drain
S.D.D. ..... Surface Drain Ditch
S/E ..... Super Elevation
SF ..... Silt Fence
SF ..... Square Feet
SHT. ..... Sheet
SPP ..... Structural Steel Plate Pipe
SPPA ..... Structural Steel Plate Pipe Arch
S.P.T. ..... Standard Penetration Testing
SRP..... Steel Spiral Rib Pipe – Aluminized Type 2
SRPA ..... Steel Spiral Rib Pipe Arch – Aluminized Type 2
SSD ..... Stopping Sight Distance
SSF ..... Super Silt Fence
STD. ..... Standard
STA. ..... Station
SO. ..... Single Opening
SY ..... Square Yards
SWM..... Stormwater Management
T ..... Tangent
T ..... Telephone
T.C. ..... Top of Cover
T.G. ..... Top of Grate
T or TL ..... Traverse Line
T.M. ..... Top of Manhole
TRAV. ..... Traverse
TS ..... Temporary Swale
T.S. ..... Top of Slab
TYP. ..... Typical
U.D. ..... Under Drain
U.G. ..... Underground
U.P. ..... Utility Pole
USDA ..... United States Department of Agriculture
VCL ..... Vertical Clearance
V.C.L. ..... Vertical Curve Length
W ..... Water
W ..... West
WB ..... Westbound
WB ..... Wetland Buffer
W.M. ..... Water Meter
W.S. ..... Wrapped Steel
WUS ..... Waters of the United States
W.V. ..... Water Valve

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: NONE | GN–01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

SYMBOLS AND ABBREVIATIONS

DIVISION CHIEF
DATE
FILE
SHEET 2 OF 75

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	3	75

GENERAL NOTES

SPECIFICATIONS

ALL PROCEDURES SHALL BE GOVERNED BY THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES DATED 2014, ISSUED BY THE DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION, EXCEPT AS AMENDED BY THESE PLANS AND THE SPECIAL PROVISIONS.

TOPOGRAPHY AND SURVEYS

TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS WAS DEVELOPED FROM FIELD SURVEYS MADE IN 2022 BY:

WILES MENCH CORPORATION – DC

ALL ELEVATIONS REFER TO DC DEPARTMENT OF PUBLIC WORKS DATUM.

COORDINATES ARE BASED ON MARYLAND STATE PLANE COORDINATE SYSTEM NAD 83\2011.

UTILITIES

EXISTING UTILITIES ARE SHOWN ON THE CONTRACT PLANS BASED ON AVAILABLE RECORDS, FIELD UTILITY INVESTIVATIONS, AND UTILITY OWNER COMMENTS. NO GUARANTEE IS MADE TO THE COMPLETENESS OR ACCURACY OF THIS INFORMATION. THE CONTRACTOR SHALL IDENTIFY THE PRESENCE AND LOCATION OF ALL UTILITIES THROUGHOUT THE JOBSITE INCLUDING ELECTRICAL, COMMUNICATIONS, GAS, SANITARY, WATER, STORM, LIGHTING, ETC. CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY AT 1–800–257–7777 PRIOR TO BEGINNING WORK. PRIOR TO CONSTRUCTION, UTILITY LOCATION AND TEST PITTING MUST BE PERFORMED BY THE CONTRACTOR TO IDENTIFY LOCATION OF UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND MAINTAINING ALL UTILITIES DURING CONSTRUCTION. ANY DAMAGE INCURRED TO UTILITIES MUST BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR IS ADVISED THAT WMATA IS NOT PART OF THE MISS UTILITY ONE–CALL SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING WMATA TO LOCATE THE FACILITIES.

THE ABOVE PRECAUTIONS SHALL BE CONSIDERED INCIDENTAL TO THE ITEMS OF WORK AND AT NO ADDITIONAL COST TO DDOT.

VERIFICATION OF DIMENSIONS AND ELEVATIONS

THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL PLAN AND ELEVATION DIMENSIONS PRIOR TO ORDERING MATERIALS FOR THE CONSTRUCTION OF VARIOUS BID ITEMS ON THE PROJECT.

PROPERTY NOTES

1. HORIZONTAL DATUM IS NAD83 MARYLAND STATE PLANE COORDINATE SYSTEM – NORTH AMERICAN DATUM 1983 (MD–NAD83) U.S. SURVEY FEET.
2. THE PROPERTY LINES SHOWN HEREON ARE BASED ON PROPERTY RECORDS FROM THE DC SURVEYOR'S OFFICE, THE NATIONAL PARK SERVICE, DDOT BRIDGE PLANS AND FIELD SURVEYED PROPERTY MONUMENTATION.
3. PROPERTY CORNERS MARKERS WERE NOT INSTALLED BY THIS SURVEY.
4. OWNERSHIP INFORMATION SHOWN HEREON IS BASED UPON DC OFFICE TAX AND REVENUE WEBSITE.
5. NO TITLE REPORT INFORMATION WAS PROVIDED OR UTILIZED IN THE PREPARATION OF THIS SURVEY.

AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE

1. THE CONTRACTOR IS ADVISED THAT THE EXISTING CONDITIONS WILL CONTROL CERTAIN FEATURES OF THE PROPOSED RAMPS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT THE PROPOSED RAMPS TO BE IN FULL COMPLIANCE WITH THE CURRENT ADA REQUIREMENTS WHILE BLENDING IN WITH THE EXISTING CONDITIONS. AT NO POINT SHALL THE EXISTING FIELD CONDITIONS BE USED AS JUSTIFICATION FOR NOT MEETING THE ADA REQUIREMENTS. IT IS UNDERSTOOD THAT SIDEWALK SURFACES MAY HAVE TO BE WARPED AND /OR PCC COPING OR OTHER ELEMENTS MAY HAVE TO BE INCORPORATED INTO THE WORK TO ENSURE ADA COMPLIANCE. UNLESS PROVIDED FOR OTHERWISE, THESE ADDITIONAL FEATURES ARE CONSIDERED TO BE INCIDENTAL TO CONSTRUCTION OF THE PROPOSED RAMPS.
2. ALL PEDESTRIAN RAMPS AND SIDEWALK SHALL BE CONSTRUCTED IN CONFORMANCE WITH DDOT STANDARD DWG. NO'S 606.05 THROUGH 606.13 UNLESS OTHERWISE NOTED. REFER TO THE STANDARD DRAWINGS FOR ADDITIONAL NOTES AND DETAILS.
3. ALL RAMPS SHALL CONFORM TO THE LATEST AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) CRITERIA.
4. CONTRACTOR'S PROJECT MANAGER WILL CONTACT THE ADA COORDINATOR IN THE EVENT THAT FIELD MODIFICATIONS ARE NEEDED TO THE PROPOSED WORK FOR ADA COMPLIANCE.
5. FINAL LOCATION OF RAMP WILL BE REVIEWED AND ACCEPTED BY THE ENGINEER ON SITE. FINAL LOCATION OF RAMP MUST ALSO HAVE WRITTEN APPROVAL FROM DDOT ADA COORDINATOR.

DRAINAGE

1. SEWER BENCHMARK SHALL BE USED FOR SEWER CONSTRUCTION.
2. WATER BENCHMARK SHALL BE USED FOR WATER CONSTRUCTION.
3. THE CONTRACTOR SHALL NOTIFY MISS UTILITY, 1–800–257–7777, 48 HOURS PRIOR TO EXCAVATION.
4. THE CONTRACTOR SHALL KEEP ALL THE UTILITIES IN SERVICE DURING CONSTRUCTION. IF ANY UTILITY IS ACCIDENTALLY DISRUPTED DURING CONSTRUCTION, THE UTILITY OWNER AND THE CHIEF ENGINEER SHALL BE NOTIFIED IMMEDIATELY AND REPLACEMENT SHALL BE DONE IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. PLANNED DISRUPTIONS IN UTILITY SERVICE MUST BE COORDINATED THROUGH THE CHIEF ENGINEER.

EROSION AND SEDIMENT CONTROL

1. THE CONTRACOTOR SHALL KEEP ALL DRAINAGE INLETS PROTECTED USING APPROPRIATE SEDIMENT CONTROL METHODS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AS SHOWN IN THE PLANS.
2. THE CONTRACTOR SHALL INSTALL SEDIMENT CONTROL PROECTION FOR NEW INLETS IMMEDIATELY AFTER THE INLETS ARE CONSTRUCTED.
3. THE CONTRACTOR SHALL INSTALL SEDIMENT CONTROL PROTECTION FOR EXISTING NEARBY INLETS OUTSIDE THE LIMIT OF WORK THAT ARE IMPACTED BY THE CONSTRUCTION.
4. THE CONTRACTOR SHALL REMOVE SEDIMENT CONTROL PROTECTION UPON COMPLETION OF EACH PHASE OF CONSTRUCTION AS DIRECTED BY THE CHIEF ENGINEER.

MAINTAINENCE OF TRAFFIC (MOT)

1. DURING ALL PHASES OF CONSTRUCTION AND THE DURATION OF THE CONTRACT THE TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIAL PROVISIONS.
2. IF THE CONTRACTOR DOES NOT WISH TO USE THE MOT PLANS IN THE CONTRACT DOCUMENTS, ALTERNATE MOT PLANS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CHIEF ENGINEER FOR APPROVAL.
3. TEMPORARY TRAFFIC CONTROL SIGNS SHALL NOT BE INSTALLED AT TREE PROTECTION STRUCTURES.

SPECIAL NOTES

1. THE FINISHED ELEVATIONS, ALIGNMENTS AND LIMITS OF WORK PROVIDED IN THE PLANS ARE BASED ON THE FIELD SURVEY DATA. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IF THE INFORMATION GIVEN IN THESE PLANS IS DIFFERENT FROM THAT FOUND IN THE FIELD.
2. THE CONTRACTOR SHALL ENSURE THAT ANY DISTURBANCE TO THE NORMAL MOVEMENT OF PERSONNEL AND VEHICLES IS KEPT TO A MINIMUM.
3. STAGING AREAS ARE NOT DESIGNATED ON THE CONTRACT PLANS. USAGE PLANS FOR STAGING AREAS ARE TO BE SUBMITTED AND ARE SUBJECT TO APPROVAL OF DDOT, WMATA, NPS, AND/OR PROPERTY OWNER. AREAS ARE TO HAVE GEO–TEXTILE FABRIC SEPARATION FROM GRADE WITH A MINIMUM OF SIX–INCHES OF STONE (NO.2, CR–6 OR NO. 57). CONTRACTOR SHALL COVER ALL STOCK PILED MATERIALS AND PROVIDE APPROPRIATE SEDIMENT CONTROL MEASURES. CONTRACTOR SHALL SECURE STAGING AREA WITH CHAIN LINK FENCE AND GATES. THE TOTAL COST OF STAGING AREAS, INCLUDING FENCING, GATES, GEO–TEXTILE, SECURITY, STONE, SEDIMENT CONTROL AND RESTORATION TO THE SATISFACTION OF DDOT AND THE PROPERTY OWNER WILL NOT BE MEASURED SEPARATELY BUT SHALL BE INCIDENTAL TO ALL ITEMS OF WORK AND AT NO ADDITIONAL COST TO DDOT.
4. WHEN NOT ENGAGED IN CONSTRUCTION ACTIVITIES THE CONTRACTOR'S CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE PARKED IN THE STORAGE SITE OR STORAGE AREA IDENTIFIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
5. CONTRACTOR SHALL COORDINATE ACTIVITIES THROUGHOUT THE PROJECT IN THE MANNER THAT ALLOWS EMERGENCY ACCESS TO ALL AREAS OF THE JOB THAT ARE OCCUPIED WITHOUT DELAYS TO EMERGENCY RESPONSE VEHICLES.
6. THE CONTRACTS SHALL NOT STOCKPILE CONSTRUCTION MATERIALS, SPOIL, DEBRIS, OR REFUSE IN ANY AREA OTHER THAN THAT SPECIFICALLY APPROVED FOR SUCH PURPOSE BY THE ENGINEER.
7. STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT ITS MOVEMENT BY THE WIND.
8. ANY DAMAGE TO THE EXISTING ROADS OR SYSTEMS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS AT THE COMPLETION OF THE PROJECT.
9. ESTABLISHMENT OF TREE PROTECTION AREAS AND SUPPLEMENTAL TREE CARE ACTIVITIES SHALL BE SUPERVISED AND/OR PERFORMED BY THE PROJECT ARBORIST, AND SHALL BE COORDINATED WITH THE ENGINEER AND THE CONTRACTOR. SPECIAL CARE SHALL BE TAKEN DURING EXCAVATIONS NEAR EXISTING TREES TO AVOID UNNECESSARY DAMAGE. TREES DAMAGED BY THE CONTRACTOR THAT WERE NOT MARKED FOR REMOVAL BY THE PLANS OR THE PROJECT ARBORIST SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. ALL MATERIAL REMOVED AND NOT REUSED IN THE CONSTRUCTION OF THIS PROJECT SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF BY THE CONTRACTOR, EXCEPT THAT GRANITE CURB IDENTIFIED BY THE ENGINEER AS SALVAGE SHALL REMAIN THE PROPERTY OF DDOT, AND SHALL BE LOADED AND HAULED TO SUCH LOCATIONS OFF THE PROJECT AS MAY BE IDENTIFIED BY THE ENGINEER, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
11. EXISTING SIGNS SHALL BE MAINTAINED PRIOR TO FINAL SIGNING INSTALLATION. ANY EXISTING SIGNS DAMAGED OR REMOVED PRIOR TO FINAL SIGNING INSTALLATION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE ENGINEER.
12. THE CONTRACTOR SHALL COORDINATE WITH ADJACENT PROPERTY OWNERS TO ENSURE THAT ACCESS TO ADJACENT PROPERTIES, INCLUDING MAILBOXES, IS MAINTAINED AT ALL TIMES.
13. UNLESS OTHERWISE SHOWN ON THE PLANS, ALL EXCESS FILL, SPOIL MATERIAL, DEBRIS, AND CONSTRUCTION MATERIAL SHALL BE DISPOSED OF OUTSIDE OF NONTIDAL WETLANDS, NONTIDAL WETLANDS BUFFERS, AND THE 100–YEAR FLOODPLAIN, AND IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS.
14. NON–MECHANICAL EXCAVATION METHODS SHALL BE USED WITHIN EXISTING TREE CRITICAL ROOTS ZONES AND WITHIN 3' OF EXISTING UTILITIES.

30% DESIGN PLANS
NOT FOR CONSTRUCTION

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: NONE | **GN–02**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
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GENERAL NOTES

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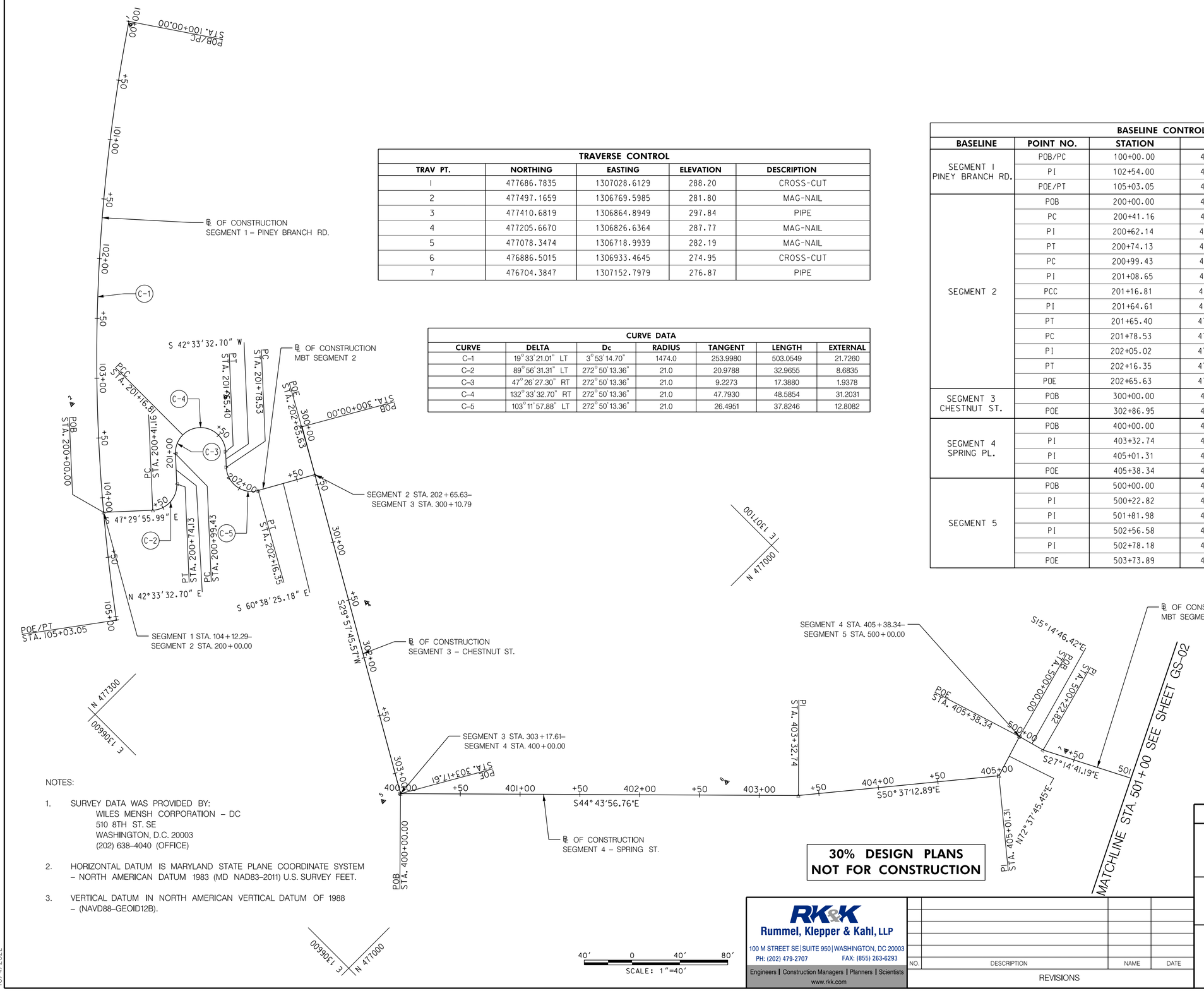
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	4	75



NOTES:

1. SURVEY DATA WAS PROVIDED BY:
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2. HORIZONTAL DATUM IS MARYLAND STATE PLANE COORDINATE SYSTEM – NORTH AMERICAN DATUM 1983 (MD NAD83–2011) U.S. SURVEY FEET.

3. VERTICAL DATUM IN NORTH AMERICAN VERTICAL DATUM OF 1988 – (NAVD88–GEOID12B).

TRAVERSE CONTROL

TRAV PT.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	477686.7835	1307028.6129	288.20	CROSS-CUT
2	477497.1659	1306769.5985	281.80	MAG-NAIL
3	477410.6819	1306864.8949	297.84	PIPE
4	477205.6670	1306826.6364	287.77	MAG-NAIL
5	477078.3474	1306718.9939	282.19	MAG-NAIL
6	476886.5015	1306933.4645	274.95	CROSS-CUT
7	476704.3847	1307152.7979	276.87	PIPE

CURVE DATA

CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
C–1	19°33'21.01" LT	3°53'14.70"	1474.0	253.9980	503.0549	21.7260
C–2	89°56'31.31" LT	272°50'13.36"	21.0	20.9788	32.9655	8.6835
C–3	47°26'27.30" RT	272°50'13.36"	21.0	9.2273	17.3880	1.9378
C–4	132°33'32.70" RT	272°50'13.36"	21.0	47.7930	48.5854	31.2031
C–5	103°11'57.88" LT	272°50'13.36"	21.0	26.4951	37.8246	12.8082

BASELINE CONTROL COORDINATES

BASELINE	POINT NO.	STATION	NORTH	EAST	BEARING
SEGMENT 1 PINEY BRANCH RD.	POB/PC	100+00.00	477689.6784	1307029.6189	
	PI	102+54.00	477547.5224	1306819.1274	N 55°58'00.42" W
	POE/PT	105+03.05	477343.1098	1306668.3611	S 36°24'39.41" W
SEGMENT 2	POB	200+00.00	477414.4505	1306724.4505	
	PC	200+41.16	477386.6419	1306754.7971	S 47°29'55.99" E
	PI	200+62.14	477372.4686	1306770.2639	
	PT	200+74.13	477387.9211	1306784.4529	
	PC	200+99.43	477406.5560	1306801.5641	N 42°15'33.70" E
	PI	201+08.65	477413.3527	1306807.8050	
	PCC	201+16.81	477413.3527	1306817.0323	
	PI	201+64.61	477413.3527	1306864.8252	N 90°00'00.00"E
	PT	201+65.40	477378.1493	1306832.5004	
	PC	201+78.53	477368.4780	1306823.6199	S 42°33'32.70" W
	PI	202+05.02	477348.9622	1306805.6999	
	PT	202+16.35	477335.9719	1306828.7920	
	POE	202+65.63	477311.8098	1306871.7435	S 60°38'25.18" E
SEGMENT 3 CHESTNUT ST.	POB	300+00.00	477321.1655	1306877.1369	
	POE	302+86.95	477072.5625	1306733.8219	S 29°57'45.57" W
SEGMENT 4 SPRING PL.	POB	400+00.00	477072.5625	1306733.8219	
	PI	403+32.74	476836.1805	1306968.0063	S 44°43'56.76" E
	PI	405+01.31	476729.2301	1307098.3038	S 50°37'12.89" E
	POE	405+38.34	476740.2852	1307133.6440	N 72°37'45.45" E
SEGMENT 5	POB	500+00.00	476740.2852	1307133.6440	
	PI	500+22.82	476718.2654	1307139.6457	S 15°14'46.42" E
	PI	501+81.98	476576.7632	1307212.5078	S 27°14'41.19" E
	PI	502+56.58	476507.6826	1307240.6654	S 22°10'33.65" E
	PI	502+78.18	476488.9881	1307251.4918	S 30°04'34.66" E
	POE	503+73.89	476400.3108	1307287.4889	S 22°05'38.00" E

30% DESIGN PLANS NOT FOR CONSTRUCTION

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DATE: OCTOBER 2022 | SCALE: 1" = 40' | **GS–01**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

GEOMETRIC LAYOUT

PROJECT ENG. AF
DESIGNED BY AF
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DRAWN BY AF
PROJECT MGR. MJG

DIVISION CHIEF
DATE
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SHEET 4 OF 75

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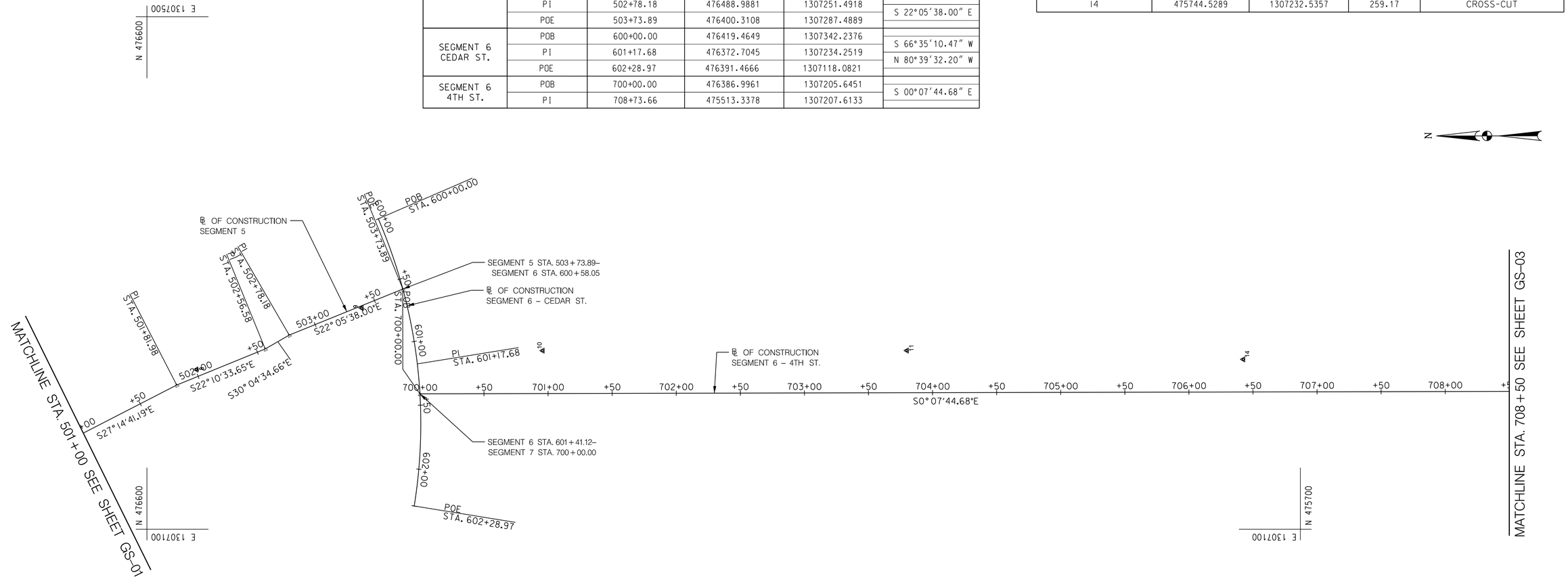
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	5	75

BASELINE CONTROL COORDINATES

BASELINE	POINT NO.	STATION	NORTH	EAST	BEARING
SEGMENT 5	POB	500+00.00	476740.2852	1307133.6440	
	PI	500+22.82	476718.2654	1307139.6457	S 15°14′46.42″ E
	PI	501+81.98	476576.7632	1307212.5078	S 27°14′41.19″ E
	PI	502+56.58	476507.6826	1307240.6654	S 22°10′33.65″ E
	PI	502+78.18	476488.9881	1307251.4918	S 30°04′34.66″ E
	POE	503+73.89	476400.3108	1307287.4889	S 22°05′38.00″ E
SEGMENT 6 CEDAR ST.	POB	600+00.00	476419.4649	1307342.2376	
	PI	601+17.68	476372.7045	1307234.2519	S 66°35′10.47″ W
	POE	602+28.97	476391.4666	1307118.0821	N 80°39′32.20″ W
SEGMENT 6 4TH ST.	POB	700+00.00	476386.9961	1307205.6451	
	PI	708+73.66	475513.3378	1307207.6133	S 00°07′44.68″ E

TRAVERSE CONTROL

TRAV PT.	NORTHING	EASTING	ELEVATION	DESCRIPTION
8	476561.3548	1307224.5880	279.42	PIPE
9	476432.4234	1307272.5802	271.14	CROSS-CUT
10	476291.2015	1307239.3350	274.60	CROSS-CUT
11	476007.0106	1307239.3350	263.96	CROSS-CUT
14	475744.5289	1307232.5357	259.17	CROSS-CUT



NOTES:

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40′ 0 40′ 80′
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INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

GEOMETRIC LAYOUT

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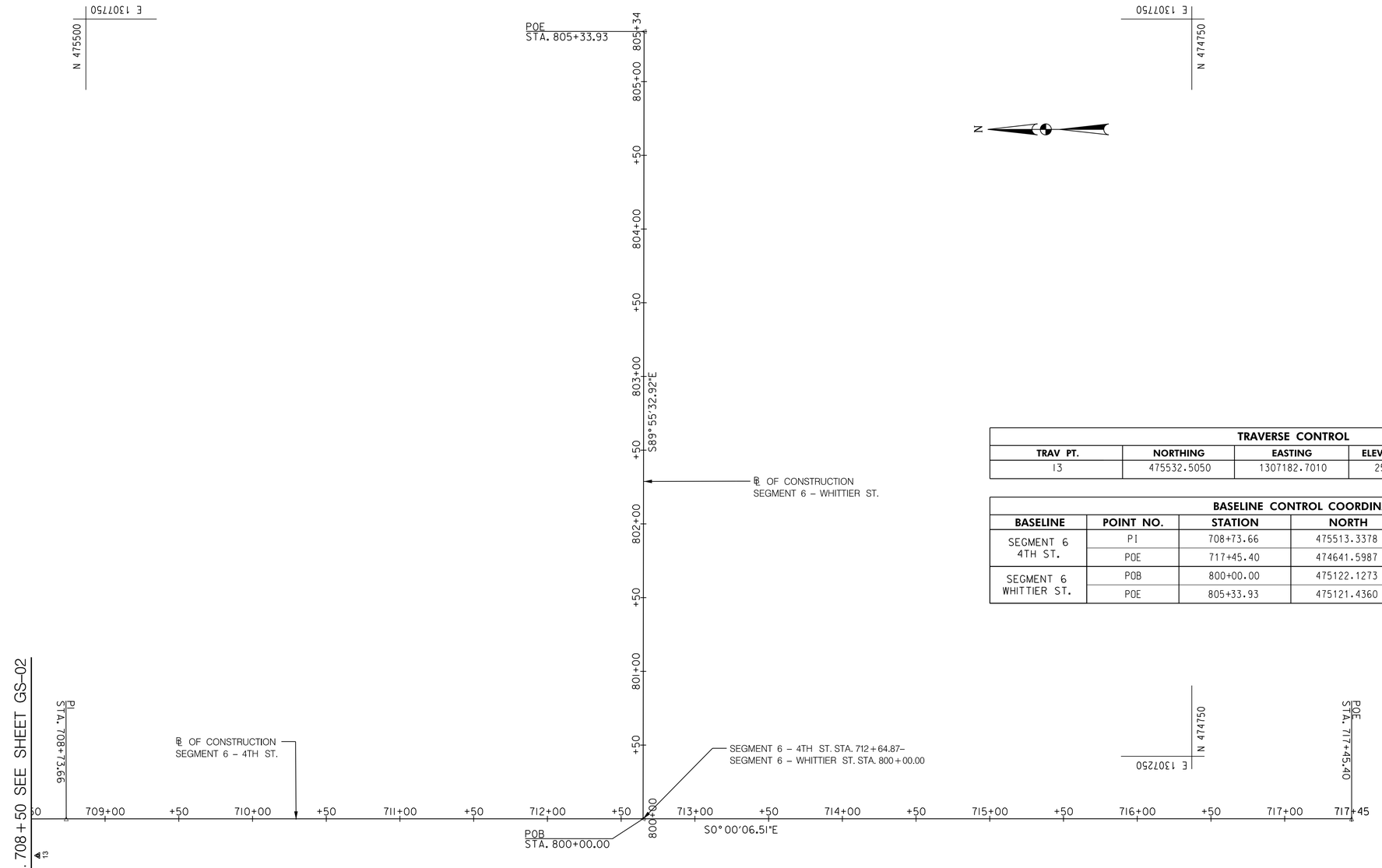
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	6	75



TRAVERSE CONTROL				
TRAV PT.	NORTHING	EASTING	ELEVATION	DESCRIPTION
13	475532.5050	1307182.7010	256.93	DRILL-HOLE

BASELINE CONTROL COORDINATES					
BASELINE	POINT NO.	STATION	NORTH	EAST	BEARING
SEGMENT 6 4TH ST.	PI	708+73.66	475513.3378	1307207.6133	S 00°00'06.51" E
	POE	717+45.40	474641.5987	1307207.6409	
SEGMENT 6 WHITTIER ST.	POB	800+00.00	475122.1273	1307207.6257	S 89°55'32.92" E
	POE	805+33.93	475121.4360	1307741.5554	

NOTES:

1. SURVEY DATA WAS PROVIDED BY:
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   WASHINGTON, D.C. 20003
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40′ 0 40′ 80′
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DATE: OCTOBER 2022 | SCALE: 1" = 40′ | **GS–03**

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INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

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GEOMETRIC LAYOUT

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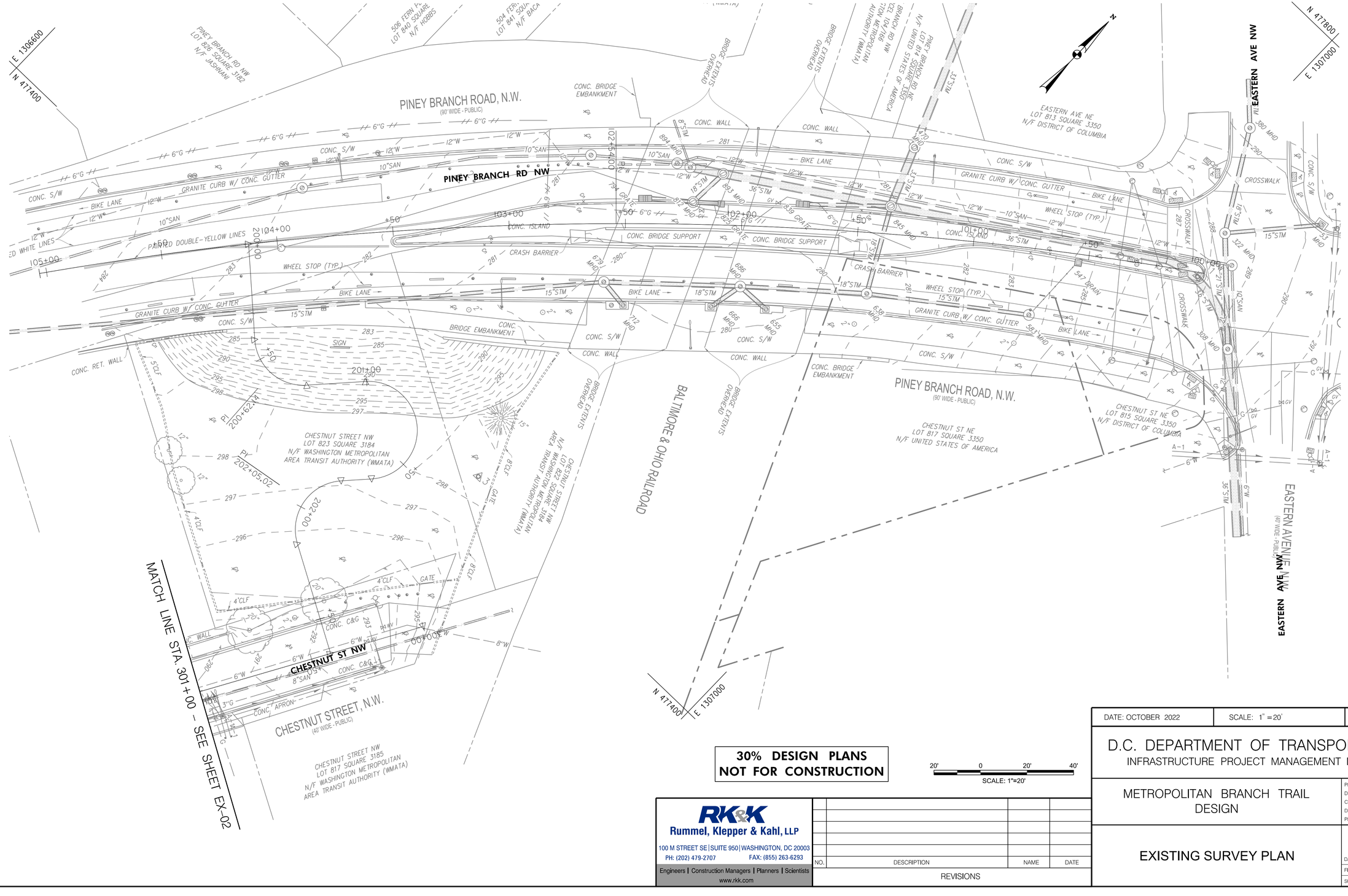
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	7	75



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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **EX-01**

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INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
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EXISTING SURVEY PLAN

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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	8	75

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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **EX–02**

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METROPOLITAN BRANCH TRAIL DESIGN

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REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
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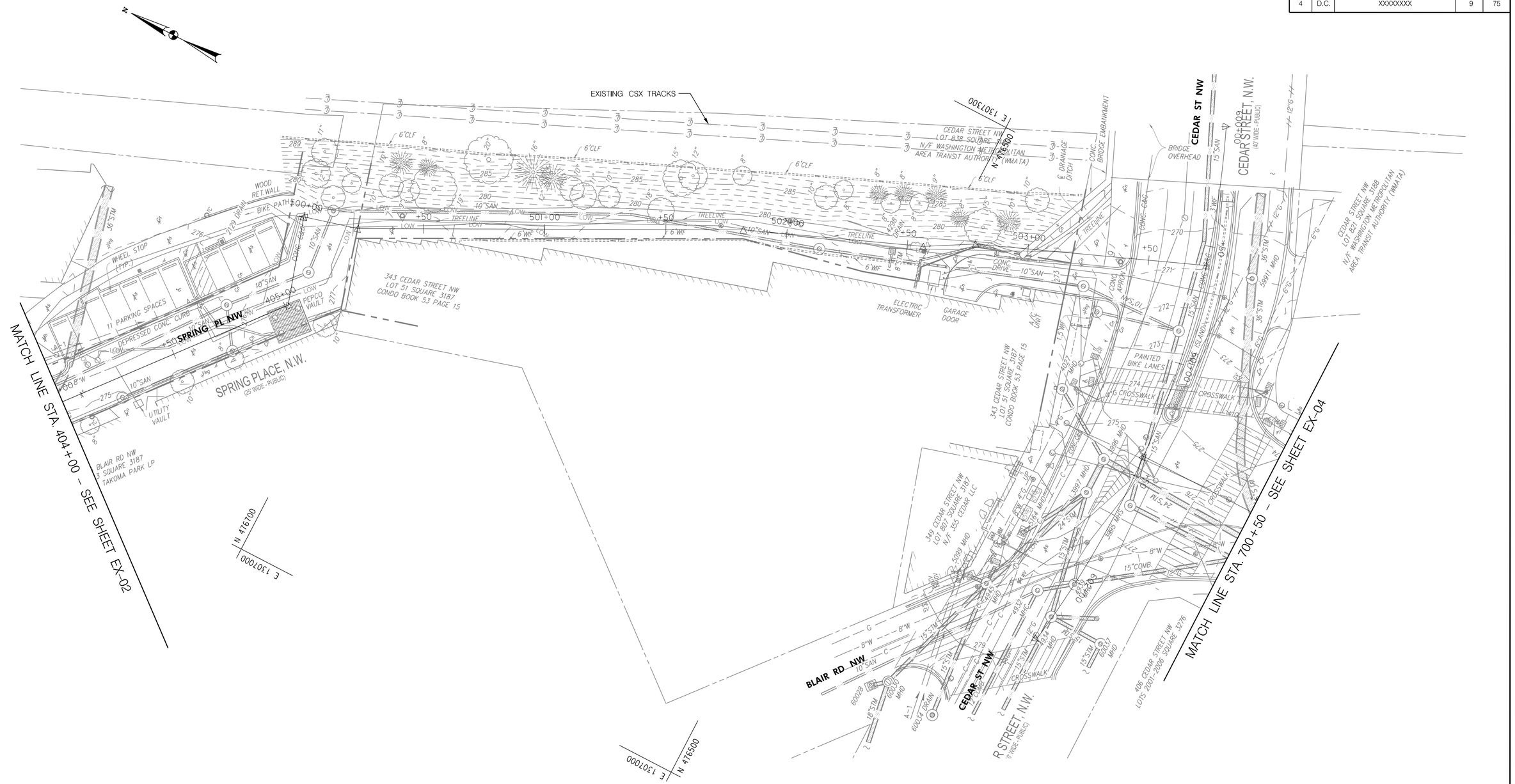

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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **EX–03**

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METROPOLITAN BRANCH TRAIL DESIGN

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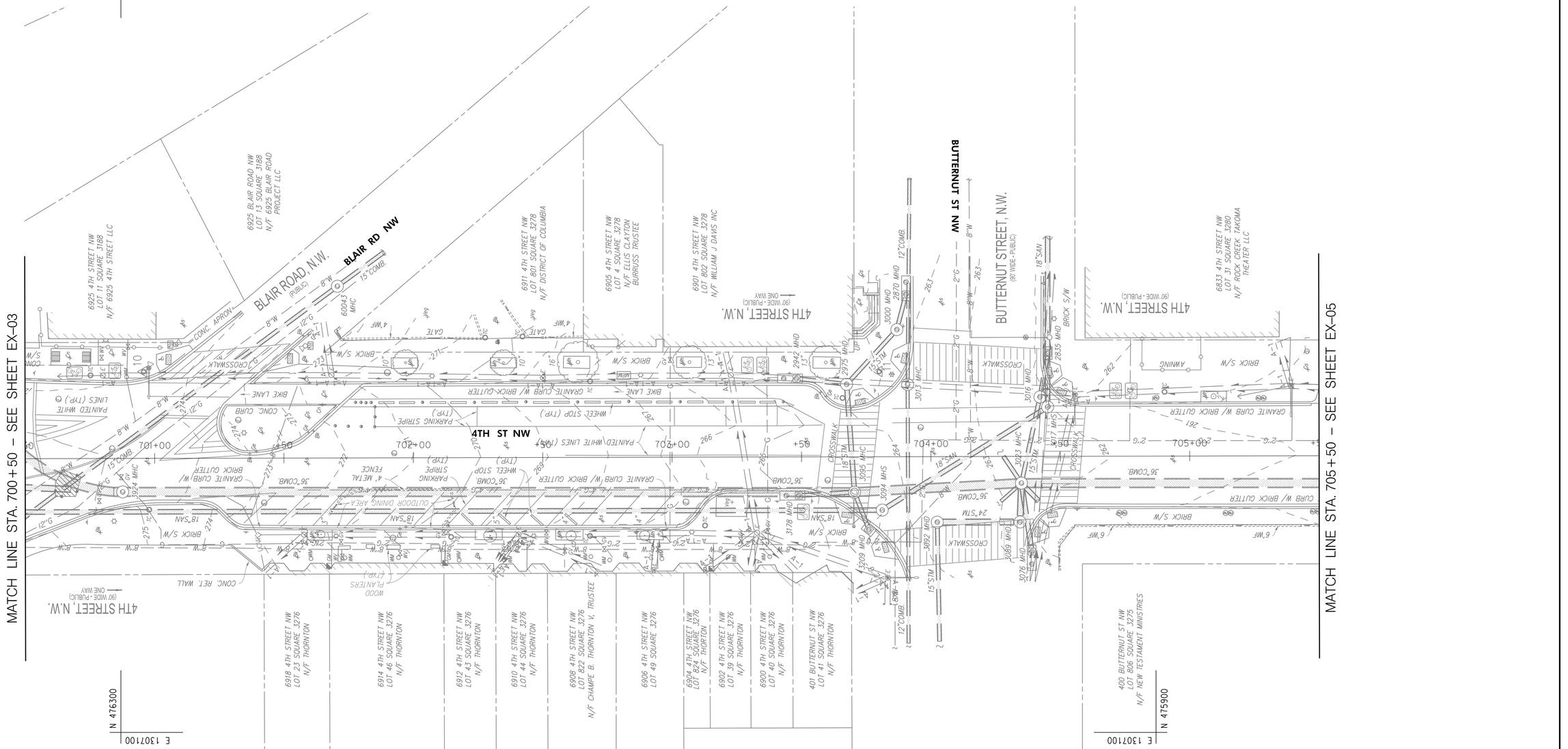
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	10	75



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METROPOLITAN BRANCH TRAIL DESIGN

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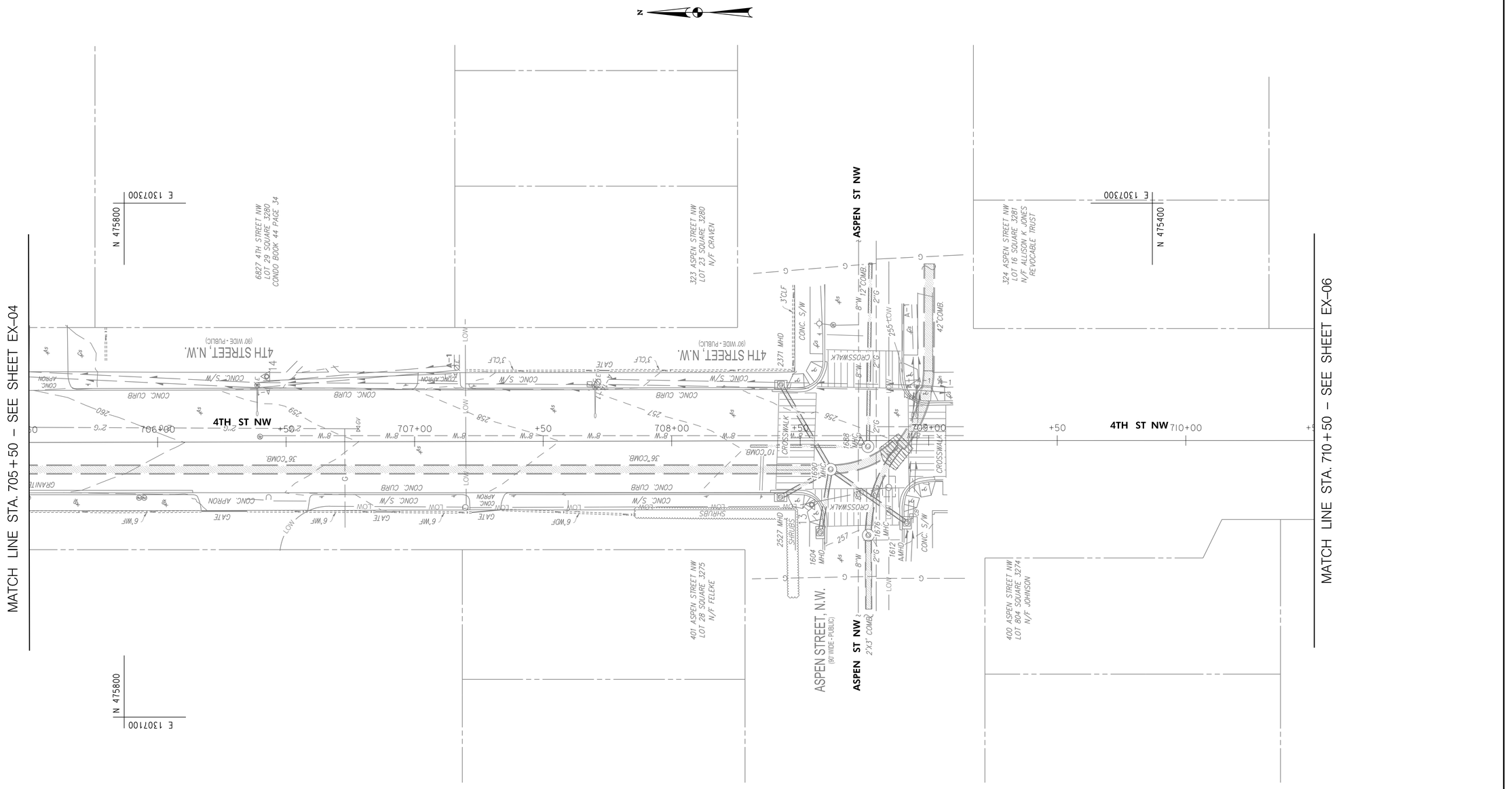
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	11	75



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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **EX-05**

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METROPOLITAN BRANCH TRAIL DESIGN

EXISTING SURVEY PLAN

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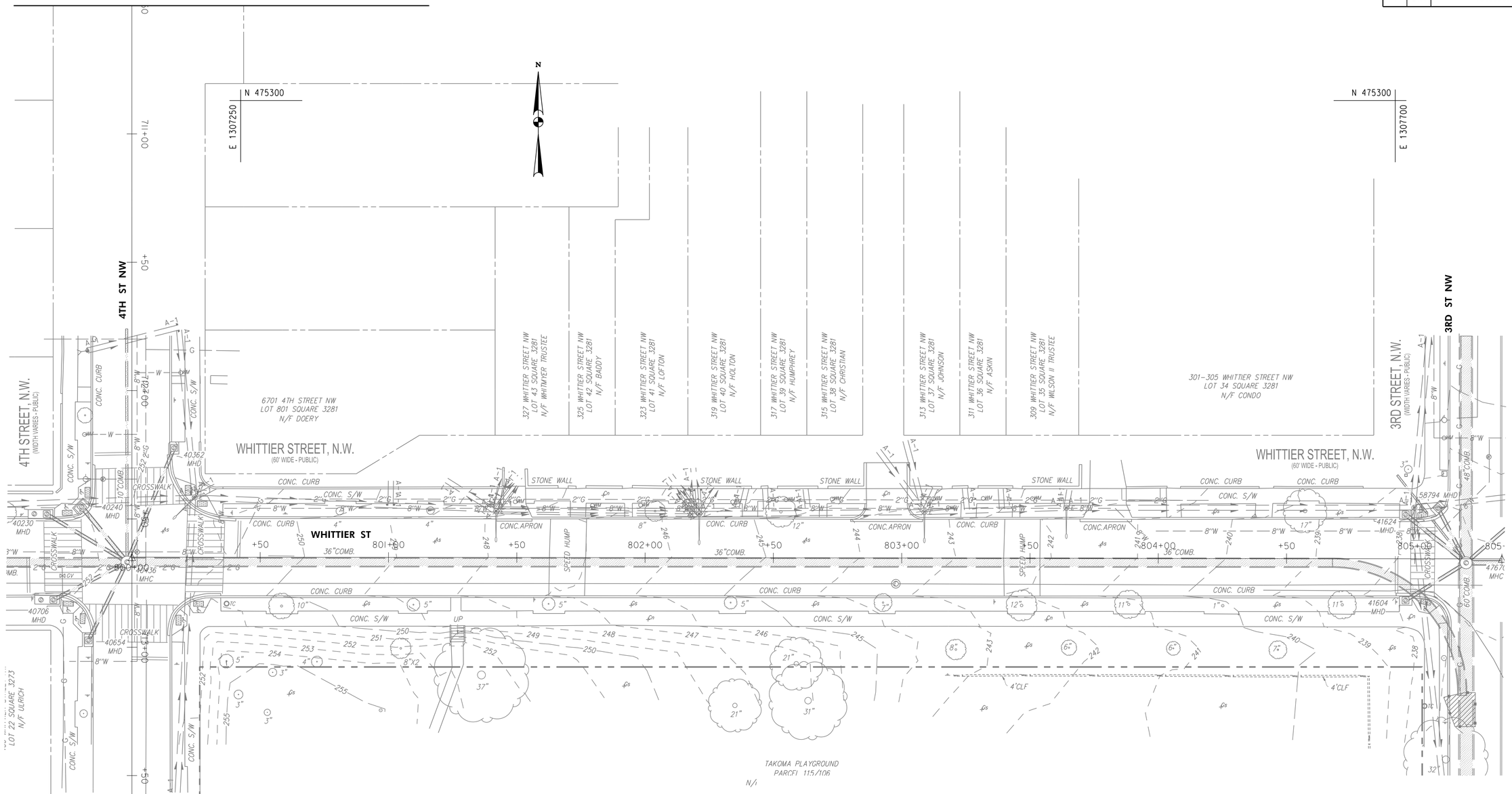
SHEET 11 OF 75

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	12	75

MATCH LINE STA. 710+50 – SEE SHEET EX–05



MATCH LINE STA. 714+00 – SEE SHEET EX–07

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SCALE: 1"=20'

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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **EX–06**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

EXISTING SURVEY PLAN

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10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	13	75

MATCH LINE STA. 714+00 – SEE SHEET EX–06

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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **EX–07**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

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EXISTING SURVEY PLAN

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SHEET 13 OF 75

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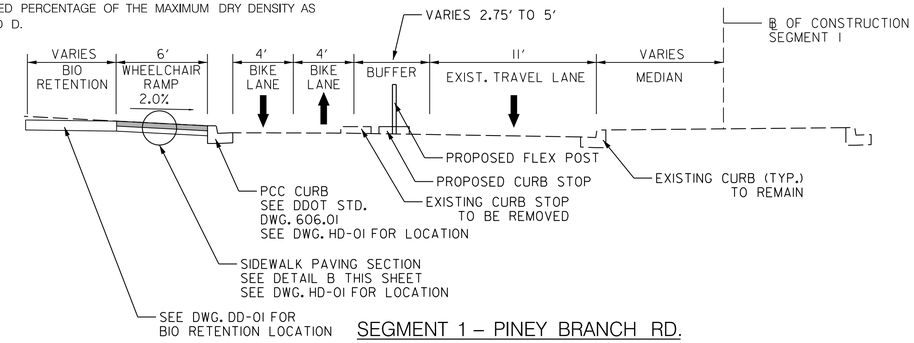
10/4/2022

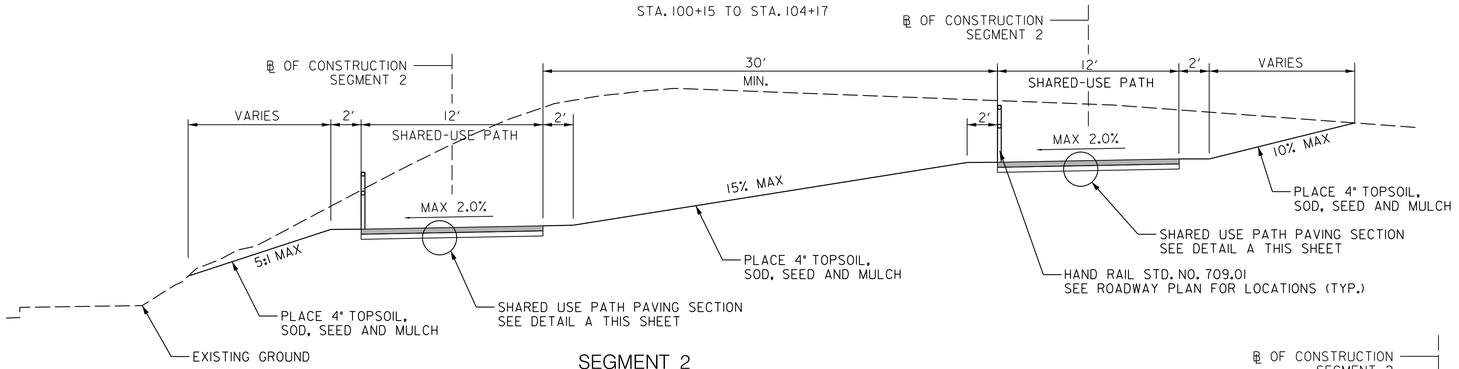
NOTES:
1. PROOF ROLLING OF THE EXISTING ROAD BED SOILS IS REQUIRED PRIOR TO REPLACEMENT OF THE SOILS BASE MATERIALS. UNSTABLE ROADBED SOILS DETECTED DURING PROOF ROLLING MUST BE REMOVED AND REPLACED WITH APPROVED SOILS BASE MATERIAL. THE DEPTH OF THE UNDERCUT WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION. THE SUBGRADE MUST BE COMPACTED TO THE SPECIFIED PERCENTAGE OF THE MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T-180 METHOD D.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	14	75



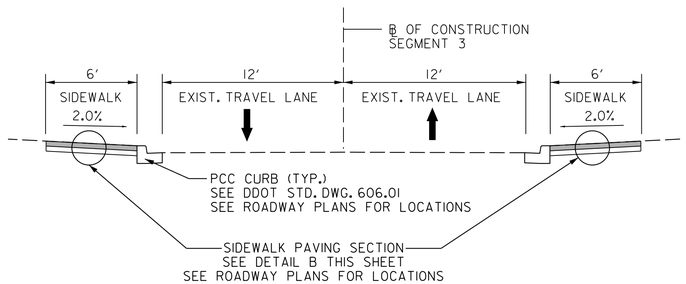
SEGMENT 1 – PINEY BRANCH RD.

STA. 100+15 TO STA. 104+17



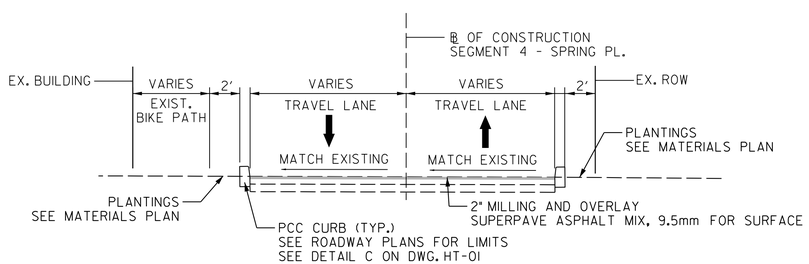
SEGMENT 2

STA. 200+36 TO STA. 202+71



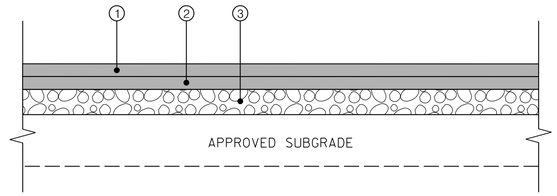
SEGMENT 3 – CHESTNUT ST.

STA. 300+06 TO STA. 303+18



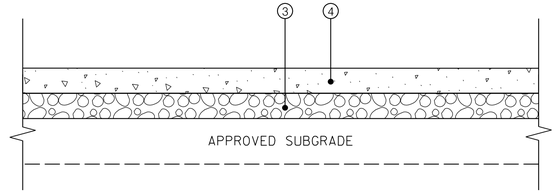
SEGMENT 4 – SPRING PL.

STA. 400+26 TO STA. 405+38



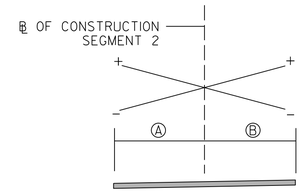
DETAIL A
SHARED-USE PATH SECTION

NOT TO SCALE



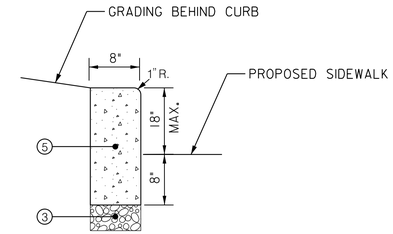
DETAIL B
SIDEWALK SECTION

NOT TO SCALE



CROSS SLOPE TRANSITION SLOPE CONVENTION DIAGRAM

SEGMENT 2 CROSS SLOPE TRANSITIONS		
STATION	CROSS SLOPE	
	A	B
201+21.42	-2.0%	2.0%
201+43.41	2.0%	-2.0%



DETAIL C
MODIFIED TYPE A CURB

NOT TO SCALE

PAVEMENT LEGEND

1. 2" SUPERPAVE ASPHALT MIX, 9.5mm FOR SURFACE, PG 64S-22, L2
2. 2" SUPERPAVE ASPHALT MIX, 19mm FOR BASE, PG 64S-22, L2
3. 4" GRADED AGGREGATE BASE COURSE
4. 4" PORTLAND CEMENT CONCRETE
5. PORTLAND CEMENT CONCRETE CURB

30% DESIGN PLANS NOT FOR CONSTRUCTION

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

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: As Shown | **HT-01**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

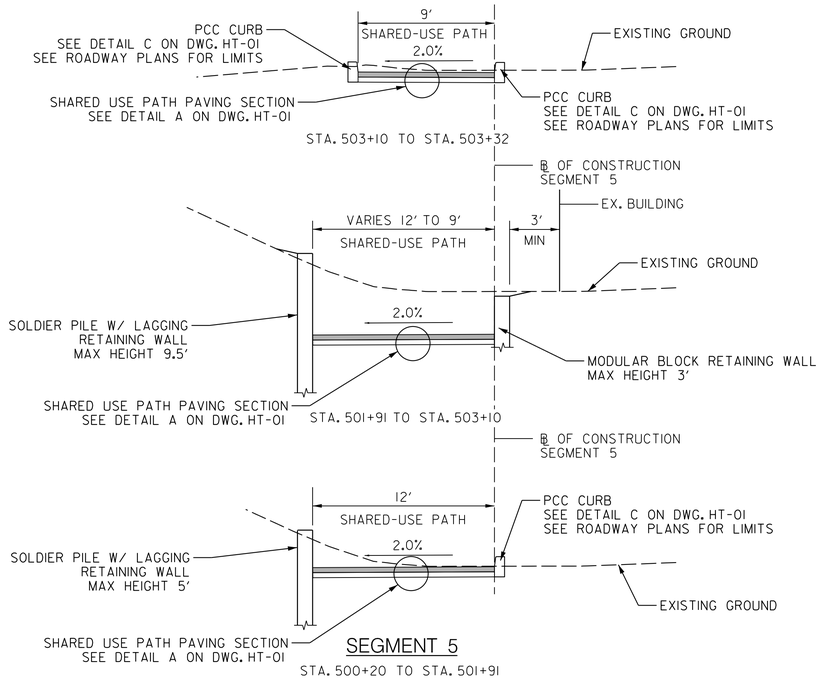
TYPICAL SECTIONS

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

DIVISION CHIEF
DATE
FILE

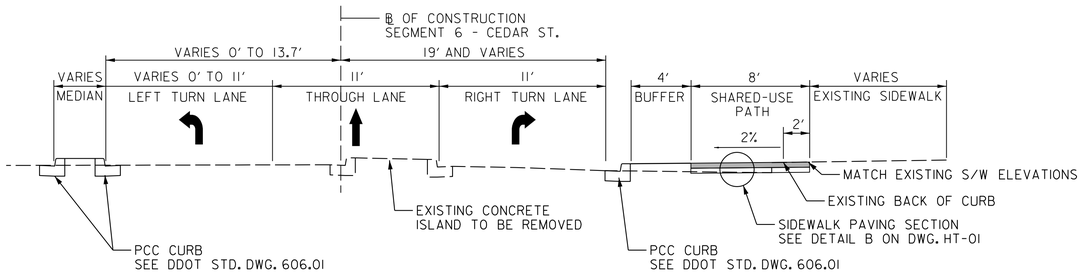
SHEET 14 OF 75

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	15	75



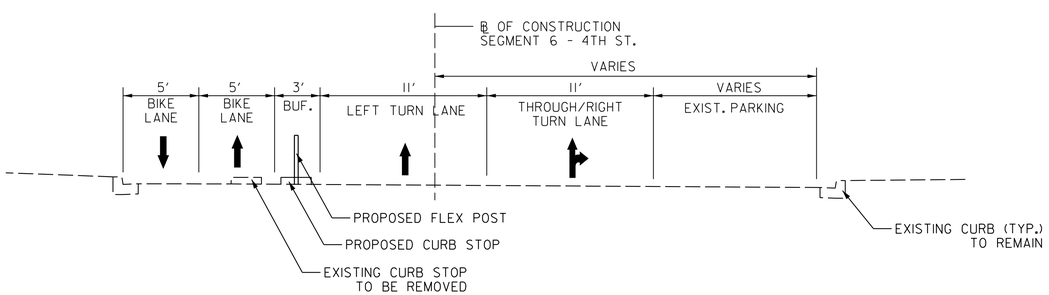
SEGMENT 5

STA. 500+20 TO STA. 501+91



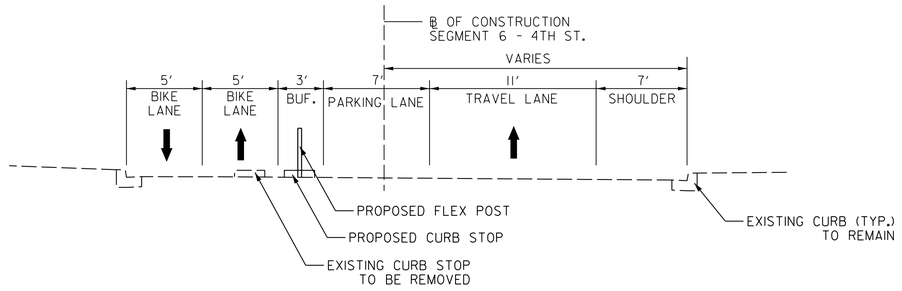
SEGMENT 6 – CEDAR ST.

STA. 600+26 TO STA. 602+21



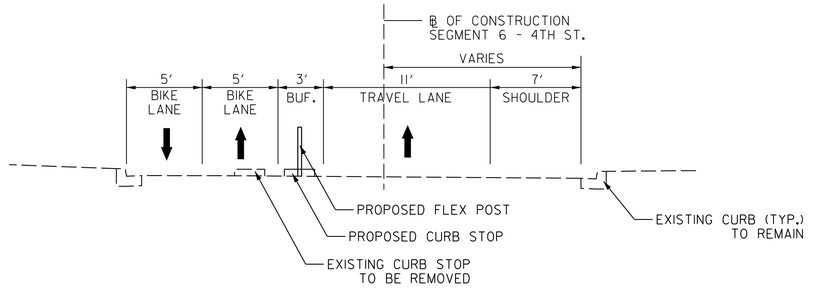
SEGMENT 6 – 4TH ST.

STA. 700+00 TO STA. 704+60



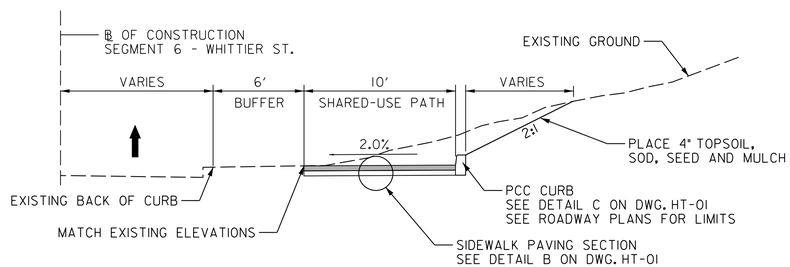
SEGMENT 6 – 4TH ST.

STA. 704+60 TO STA. 708+40



SEGMENT 6 – 4TH ST.

STA. 708+40 TO STA. 717+45



WHITTIER ST.

STA. 800+26 TO STA. 805+04

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NO.	DESCRIPTION	NAME	DATE

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DATE: OCTOBER 2022 | SCALE: AS SHOWN | **HT-02**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

TYPICAL SECTIONS

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

DIVISION CHIEF
DATE
FILE
SHEET 15 OF 75

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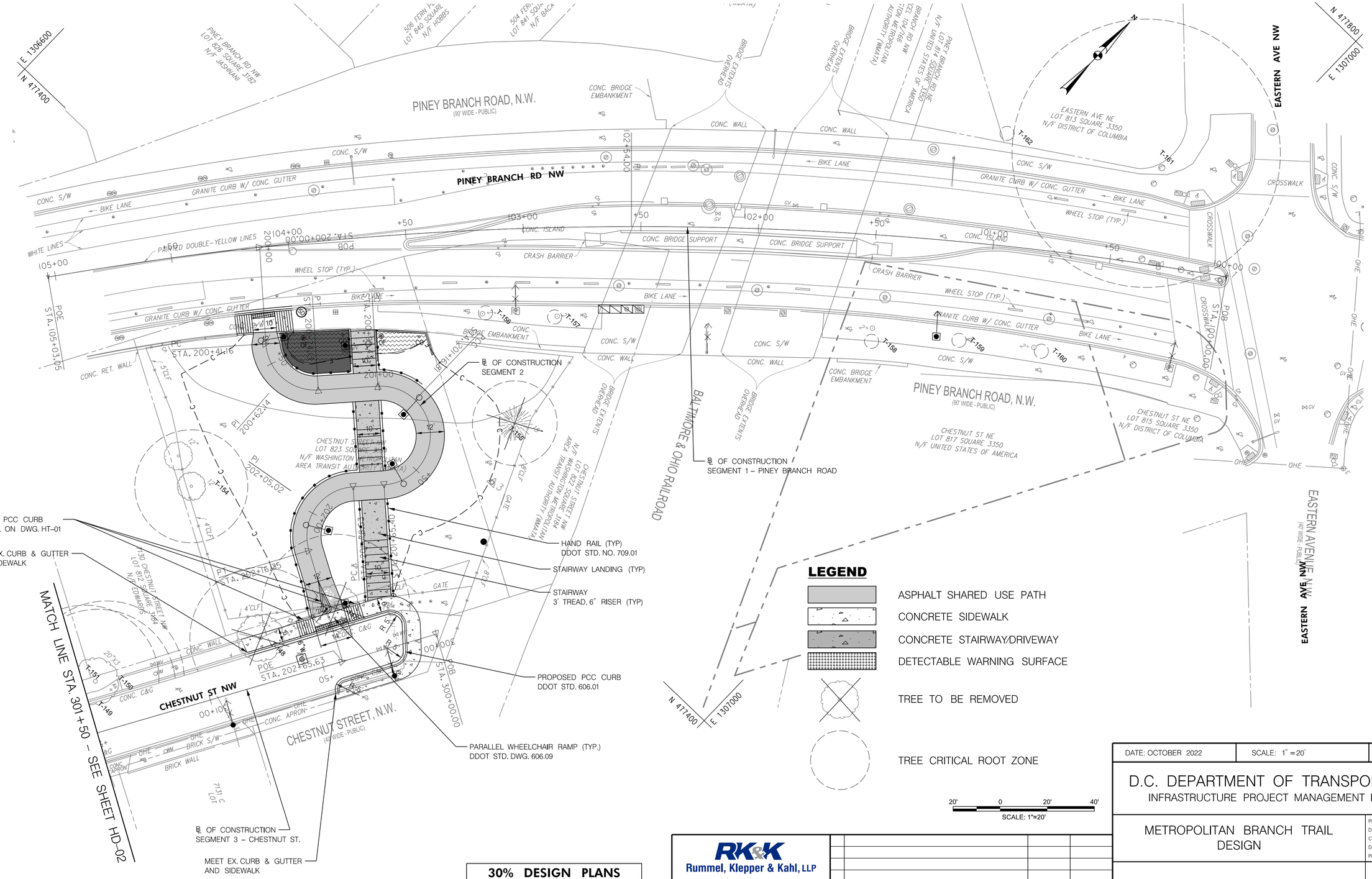
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	16	75



LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK
- CONCRETE STAIRWAY/DRIVEWAY
- DETECTABLE WARNING SURFACE
- TREE TO BE REMOVED
- TREE CRITICAL ROOT ZONE

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

30% DESIGN PLANS NOT FOR CONSTRUCTION

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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **HD-01**

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INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

ROADWAY PLAN

DIVISION CHIEF
DATE
FILE
SHEET 16 OF 75

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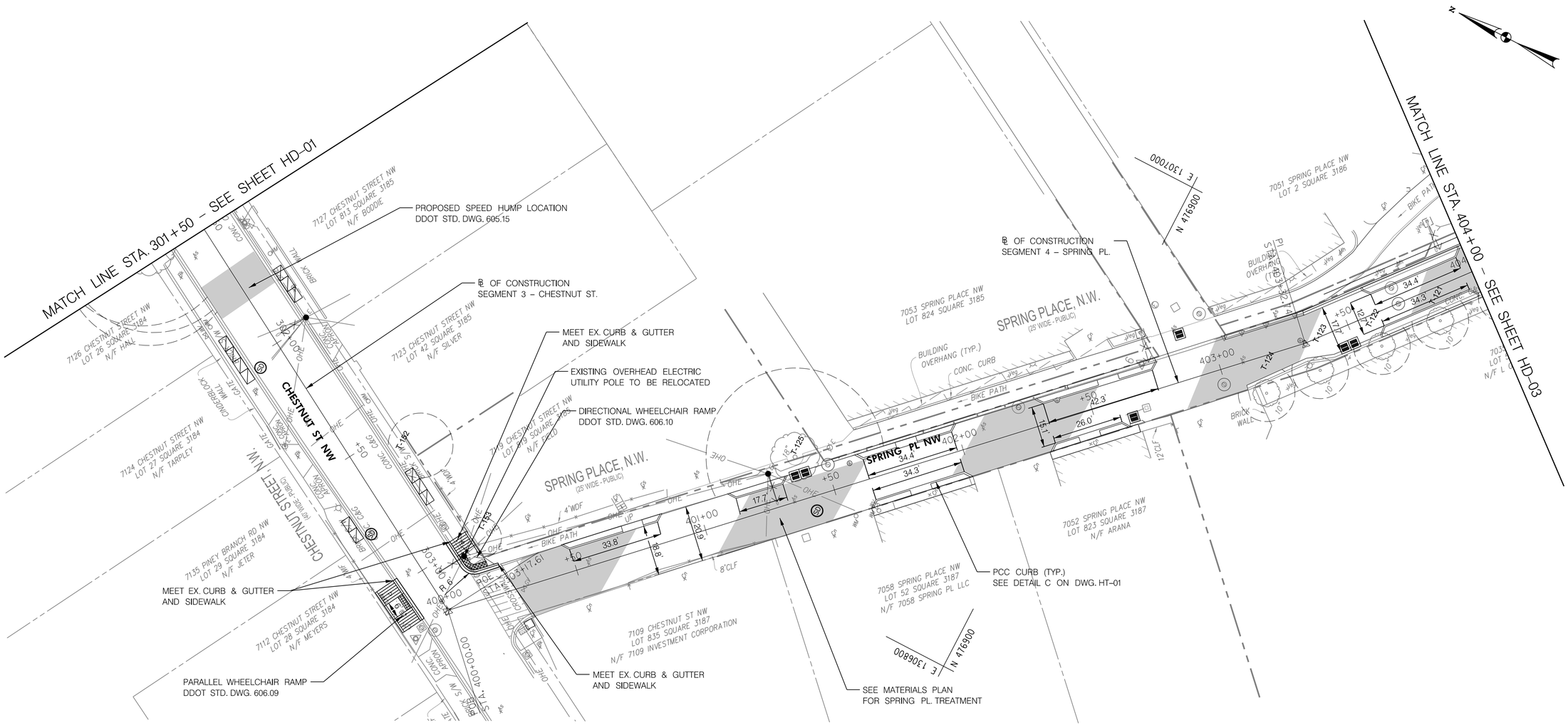
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	17	75



LEGEND

- MILL AND OVERLAY
- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK
- CONCRETE STAIRWAY/DRIVEWAY
- DETECTABLE WARNING SURFACE
- TREE TO BE REMOVED
- TREE CRITICAL ROOT ZONE

30% DESIGN PLANS
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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **HD-02**

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METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

ROADWAY PLAN

DIVISION CHIEF
DATE
FILE
SHEET 17 OF 75

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10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	18	75

N
BALTIMORE & OHIO RAILROAD
STA. 500+20
BEGIN PROPOSED SOLDIER PILE
W/LAGGING RETAINING WALL
MAX. HEIGHT 9.5'
EXISTING CSX TRACKS
STA. 503+10
END RETAINING WALLS
BEGIN PROPOSED PCC CURB
SEE DETAIL C ON SHEET HT-01
MEET EXIST. CURB & GUTTER
AND SIDEWALK
MEET EXIST.
CURB & GUTTER
CEDAR ST NW
CEDAR STREET N.W.
PC STA. 600+00.00
BRIDGE OVERHEAD
POE STA. 405+38.54
WOOD RET.WALL
WHEEL STOP (TYP.)
11 PARKING SPACES
DEPRESSED CONC CURB
SPRING PL NW
SPRING PLACE N.W.
(25' WIDE - PUBLIC)
UTILITY VAULT
343 CEDAR STREET NW
LOT 51 SQUARE 3187
CONDO BOOK 53 PAGE 15
℄ OF CONSTRUCTION
SEGMENT 5
STA. 500+20
BEGIN PROPOSED PCC CURB
SEE DETAIL C ON SHEET HT-01
℄ OF CONSTRUCTION
SEGMENT 4 - SPRING PL.
PCC CURB
SEE DETAIL C ON DWG. HT-01
STA. 501+91
END PROPOSED PCC CURB
BEGIN PROPOSED MODULAR
BLOCK RETAINING WALL
MAX HEIGHT 3'
TURF GRASS BUFFER AREA
℄ OF CONSTRUCTION
SEGMENT 6 - CEDAR ST.
FULL DEPTH ASPHALT PAVEMENT
WHEELCHAIR RAMP (TYP.)
DDOT STD. 606.08
TURF GRASS BUFFER AREA
MEET EXIST. CURB & GUTTER
AND SIDEWALK
PROPOSED PCC CURB (TYP.)
DDOT STD. DWG. 606.01
R 50'
R 43'
R 50'
R 6'
R 259'
R 227'
R 263'
R 2'
R 10'
R=50'
MATCH LINE STA. 404+00 - SEE SHEET HD-02
MATCH LINE STA. 700+50 - SEE SHEET HD-04
BLAIR RD NW
CEDAR ST NW
℄ OF CONSTRUCTION
SEGMENT 6 - 4TH ST.
349 CEDAR STREET NW
LOT 807 SQUARE 3187
N/F 355 CEDAR LLC
406 CEDAR STREET NW
LOTS 2001-2006 SQUARE 3276
N/F WASHINGTON METROPOLITAN
AREA TRANSIT AUTHORITY (WMATA)
N 476700
E 1307000
N 476500
E 1307300

LEGEND

- MILL AND OVERLAY
- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK
- CONCRETE STAIRWAY/DRIVEWAY
- DETECTABLE WARNING SURFACE
- TREE TO BE REMOVED
- TREE CRITICAL ROOT ZONE

SCALE: 1"=20'

30% DESIGN PLANS
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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **HD-03**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG
DIVISION CHIEF

ROADWAY PLAN

DATE
FILE
SHEET 18 OF 75

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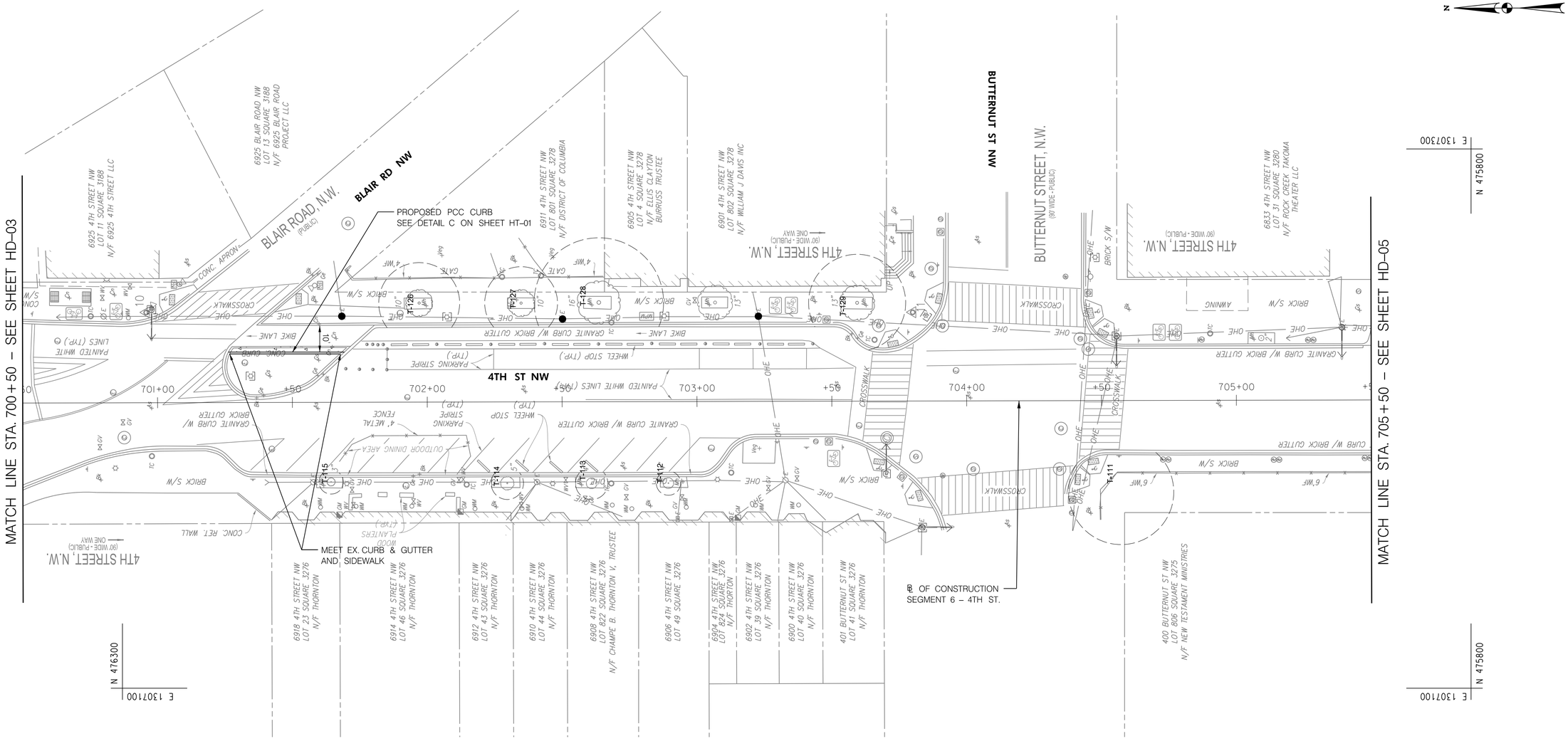
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	19	75



LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK
- CONCRETE STAIRWAY/DRIVEWAY
- DETECTABLE WARNING SURFACE
- TREE TO BE REMOVED
- TREE CRITICAL ROOT ZONE

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

30% DESIGN PLANS NOT FOR CONSTRUCTION

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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **HD–04**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

ROADWAY PLAN

DIVISION CHIEF
DATE
FILE
SHEET 19 OF 75

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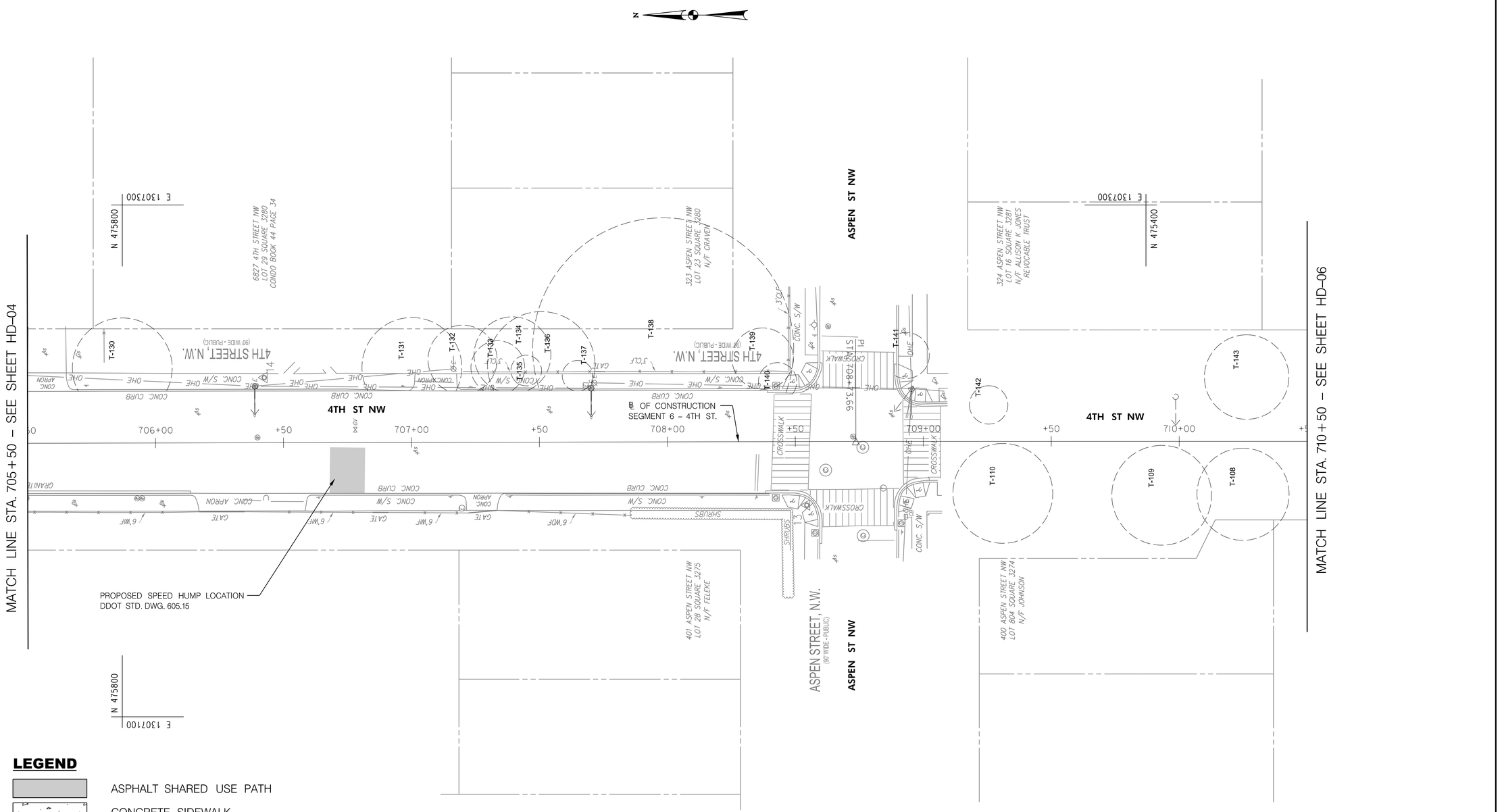
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	20	75



LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK
- CONCRETE STAIRWAY/DRIVEWAY
- DETECTABLE WARNING SURFACE
- TREE TO BE REMOVED
- TREE CRITICAL ROOT ZONE

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

30% DESIGN PLANS NOT FOR CONSTRUCTION

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METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

ROADWAY PLAN

DIVISION CHIEF
DATE
FILE
SHEET 20 OF 75

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10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	21	75

LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK
- CONCRETE STAIRWAY/DRIVEWAY
- DETECTABLE WARNING SURFACE
- TREE TO BE REMOVED
- TREE CRITICAL ROOT ZONE

MATCH LINE STA. 710+50 – SEE SHEET HD–05

N 475300
E 1307300

N 475300
E 1307700

℄ OF CONSTRUCTION
SEGMENT 6 – 4TH ST.

℄ OF CONSTRUCTION
SEGMENT 6 – WHITTIER ST.

4TH ST NW

3RD ST NW

WHITTIER ST

WHITTIER STREET, N.W.
(60' WIDE - PUBLIC)

4TH STREET, N.W.
(WIDTH VARIES - PUBLIC)

3RD STREET, N.W.
(WIDTH VARIES - PUBLIC)

6701 4TH STREET NW
LOT 801 SQUARE 3281
N/F DOERY

327 WHITTIER STREET NW
LOT 43 SQUARE 3281
N/F WHITMER TRUSTEE

325 WHITTIER STREET NW
LOT 42 SQUARE 3281
N/F BADDY

323 WHITTIER STREET NW
LOT 41 SQUARE 3281
N/F LOFTON

319 WHITTIER STREET NW
LOT 40 SQUARE 3281
N/F HOLTON

317 WHITTIER STREET NW
LOT 39 SQUARE 3281
N/F HUMPHREY

315 WHITTIER STREET NW
LOT 38 SQUARE 3281
N/F CHRISTIAN

313 WHITTIER STREET NW
LOT 37 SQUARE 3281
N/F JOHNSON

311 WHITTIER STREET NW
LOT 36 SQUARE 3281
N/F ASKIN

309 WHITTIER STREET NW
LOT 35 SQUARE 3281
N/F WILSON II TRUSTEE

301–305 WHITTIER STREET NW
LOT 34 SQUARE 3281
N/F CONDO

N/F ULRICH

TAKOMA PLAYGROUND
PARCEL 115/106

EXISTING ROW

PROPOSED PCC CURB
SEE DETAIL C ON SHEET HT–01

E 1307300
N 475000

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

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METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

ROADWAY PLAN

DIVISION CHIEF
DATE
FILE
SHEET 21 OF 75

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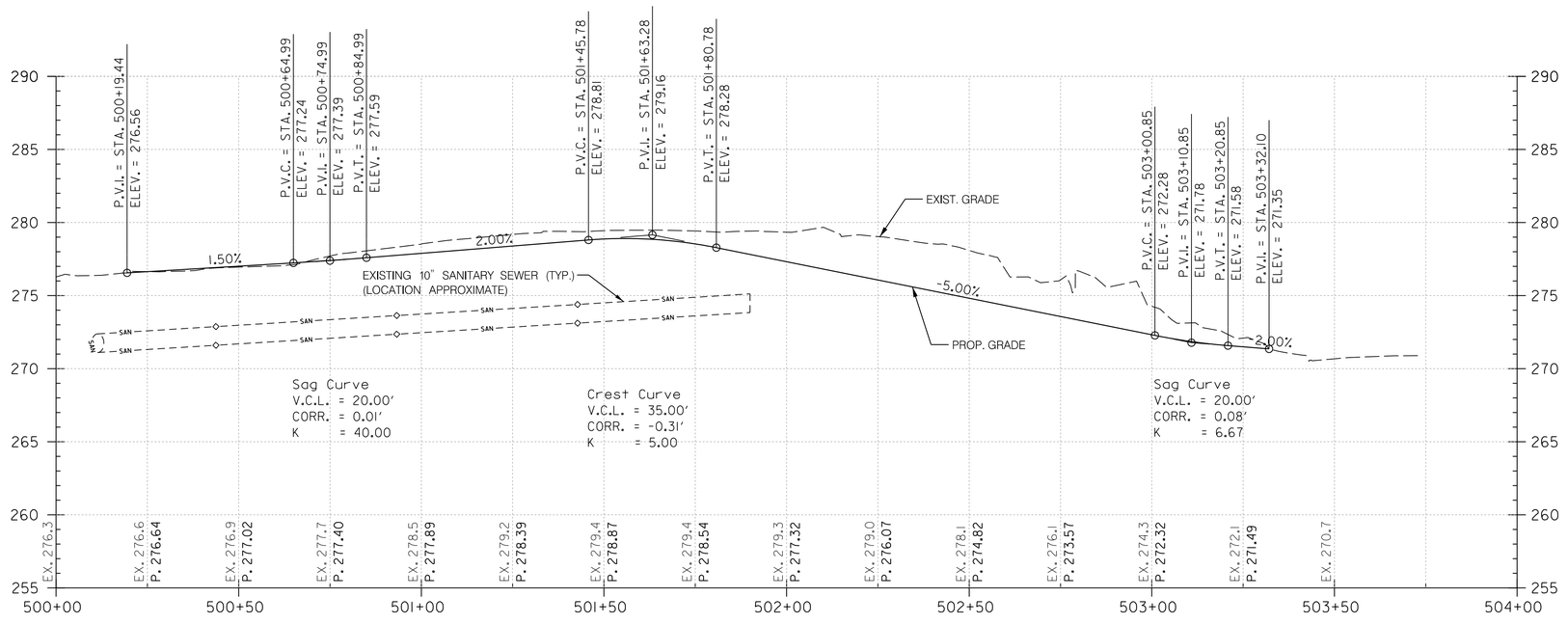
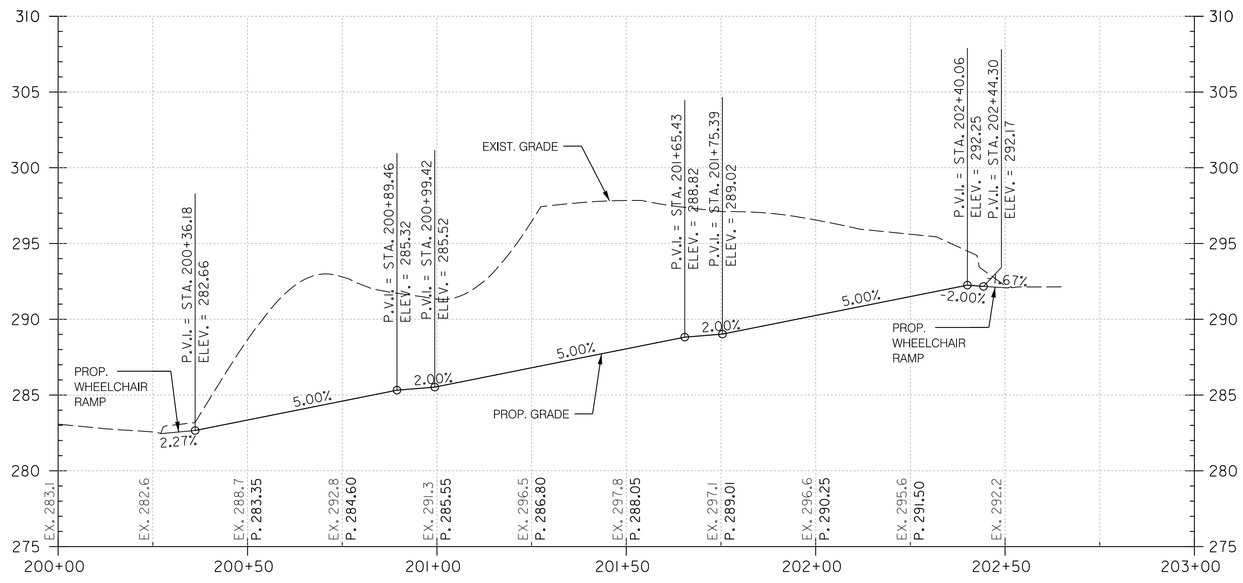
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	22	75



SEGMENT 5
SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'



SEGMENT 2
SCALE: HORIZ. 1" = 20'
VERT. 1" = 5'

NOTES:
1. CONTRACTOR SHALL NOT EXCEED GRADES SHOWN

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

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

DRAFT PLANS
NOT FOR CONSTRUCTION

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: AS SHOWN | **HP-01**

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INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

DIVISION CHIEF
DATE
FILE
SHEET 22 OF 75

SHARED USE PATH PROFILES

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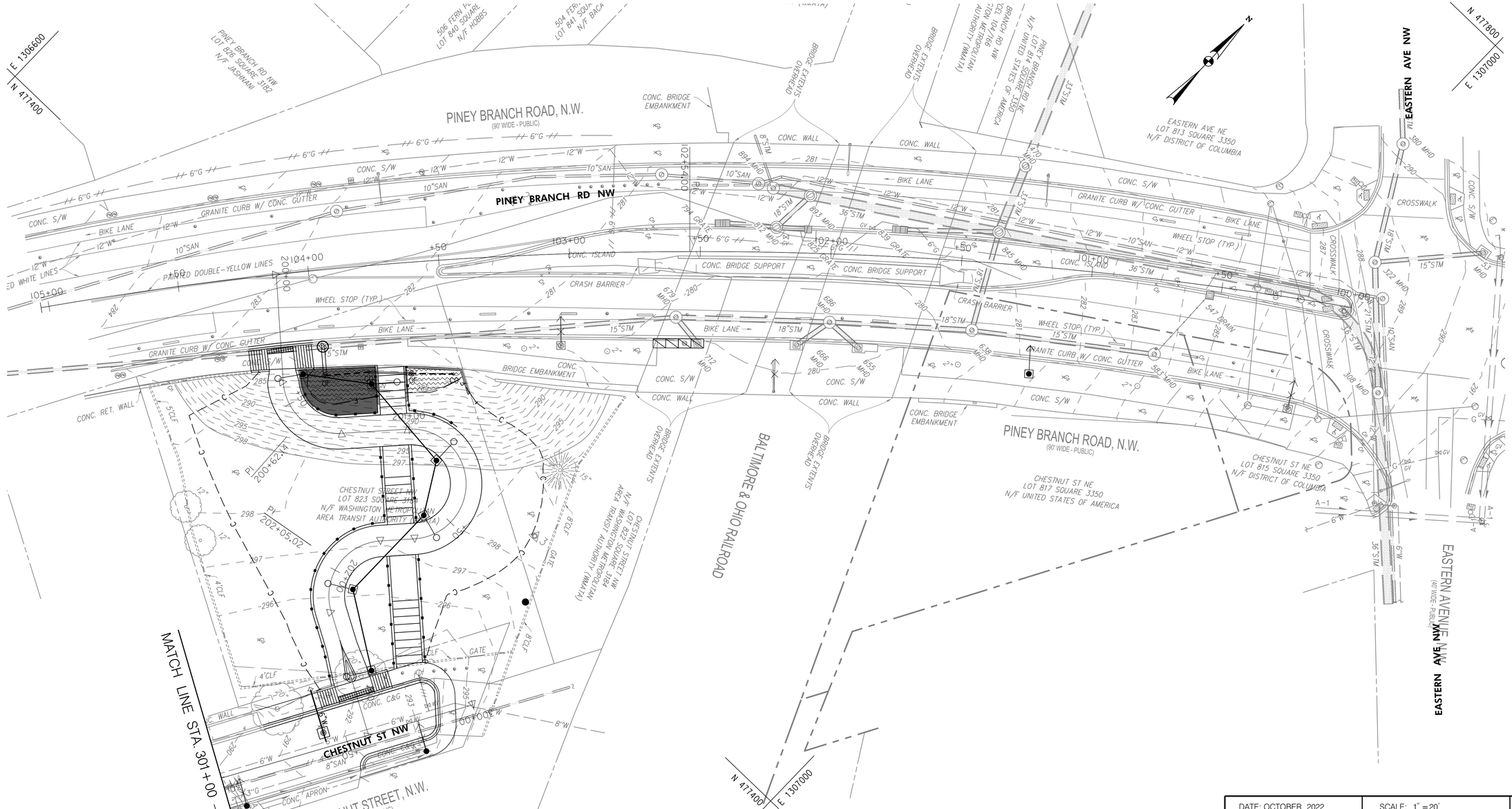
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	23	75



30% DESIGN PLANS
NOT FOR CONSTRUCTION

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

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **UT–01**

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METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

COMPOSITE UTILITY PLAN

DIVISION CHIEF
DATE
FILE
SHEET 23 OF 75

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10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	24	75

30% DESIGN PLANS
NOT FOR CONSTRUCTION

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

DATE: OCTOBER 2022
SCALE: 1" = 20'
UT–02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

DIVISION CHIEF

COMPOSITE UTILITY PLAN

DATE
FILE
SHEET 24 OF 75

NO.	DESCRIPTION	NAME	DATE

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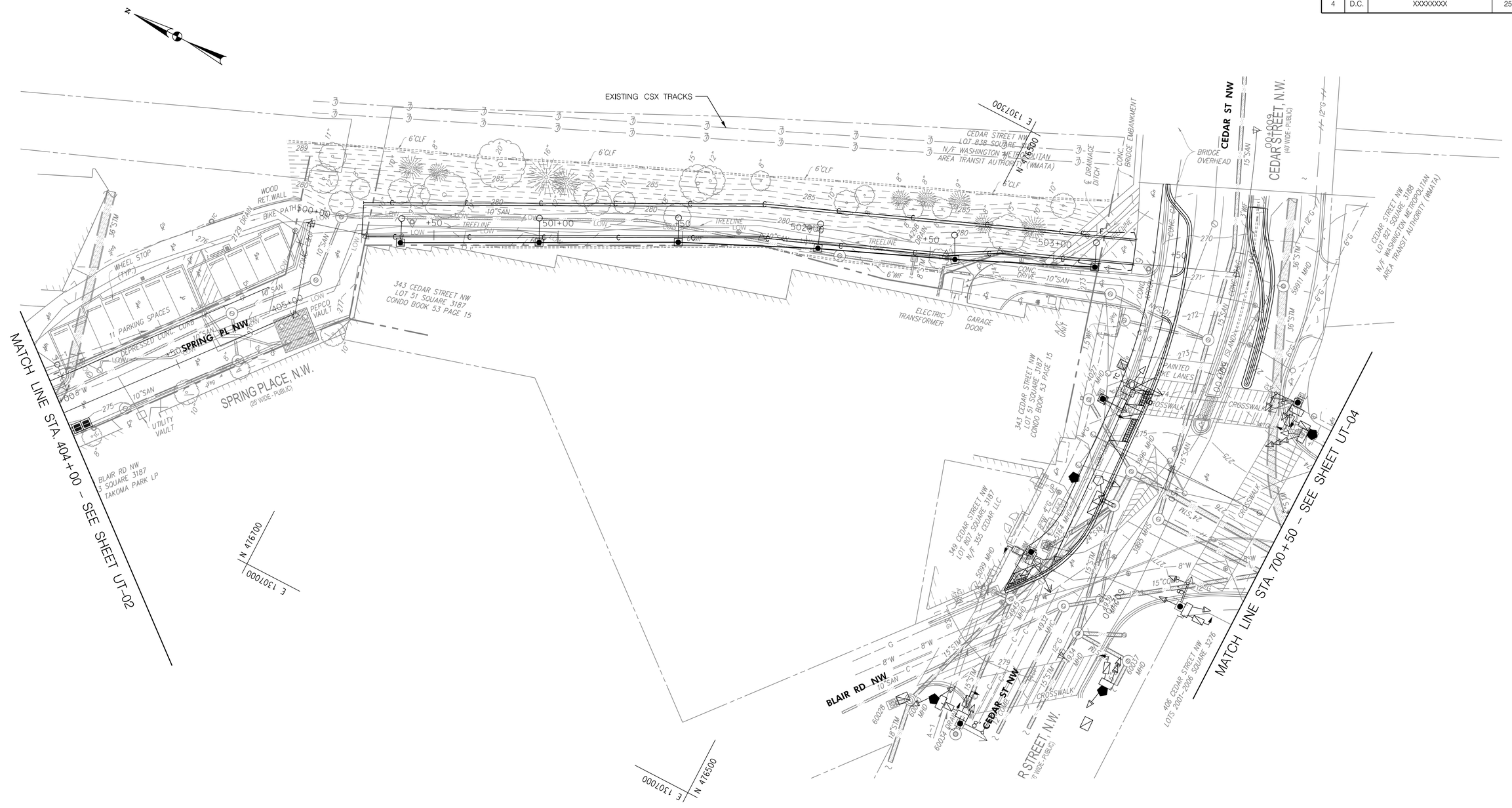
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	25	75



DATE: OCTOBER 2022

SCALE: 1" = 20'

UT-03

30% DESIGN PLANS
NOT FOR CONSTRUCTION

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

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL
DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

DIVISION CHIEF

COMPOSITE UTILITY PLAN

DATE
FILE
SHEET 25 OF 75

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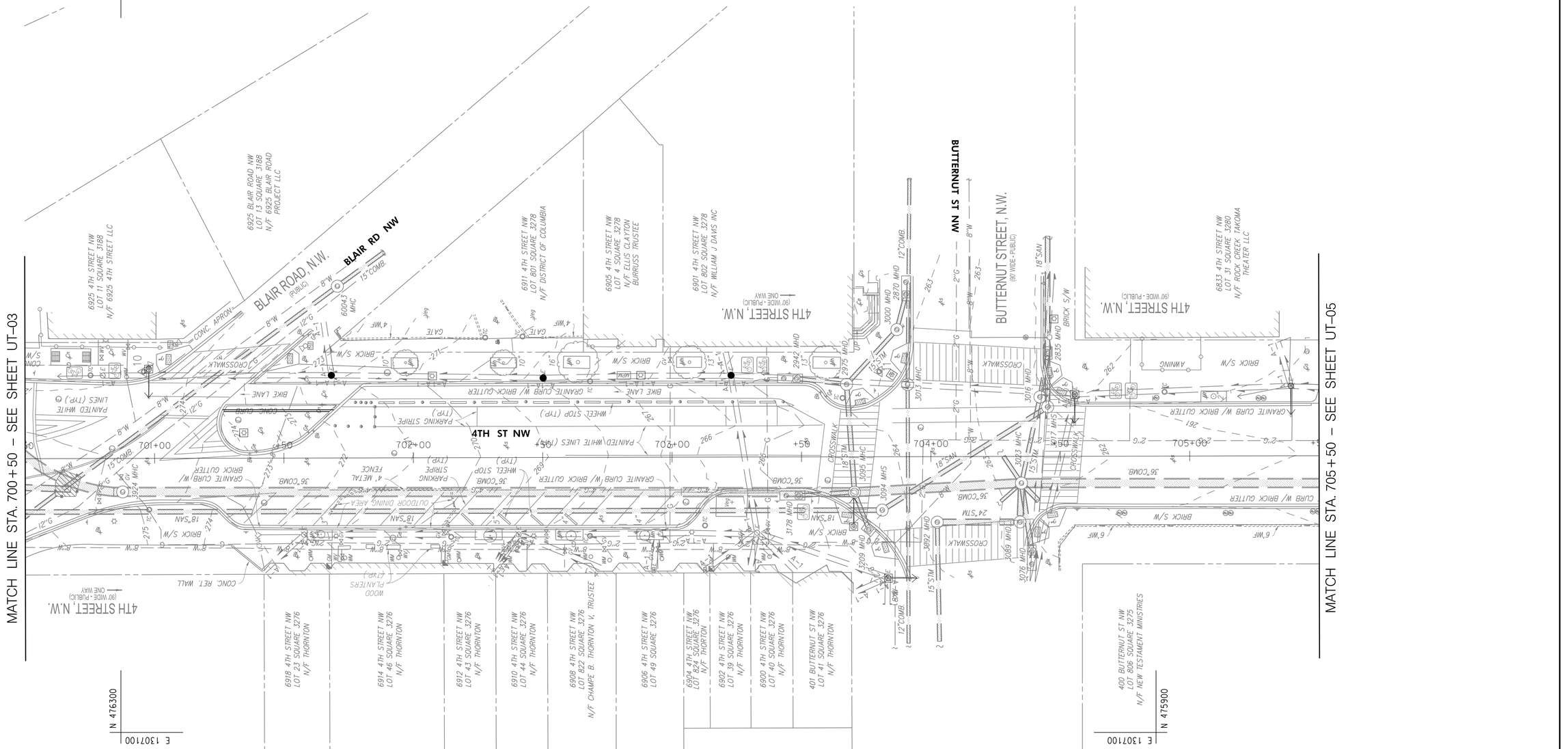
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	26	75



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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **UT–04**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

COMPOSITE UTILITY PLAN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

DIVISION CHIEF
DATE
FILE
SHEET 26 OF 75

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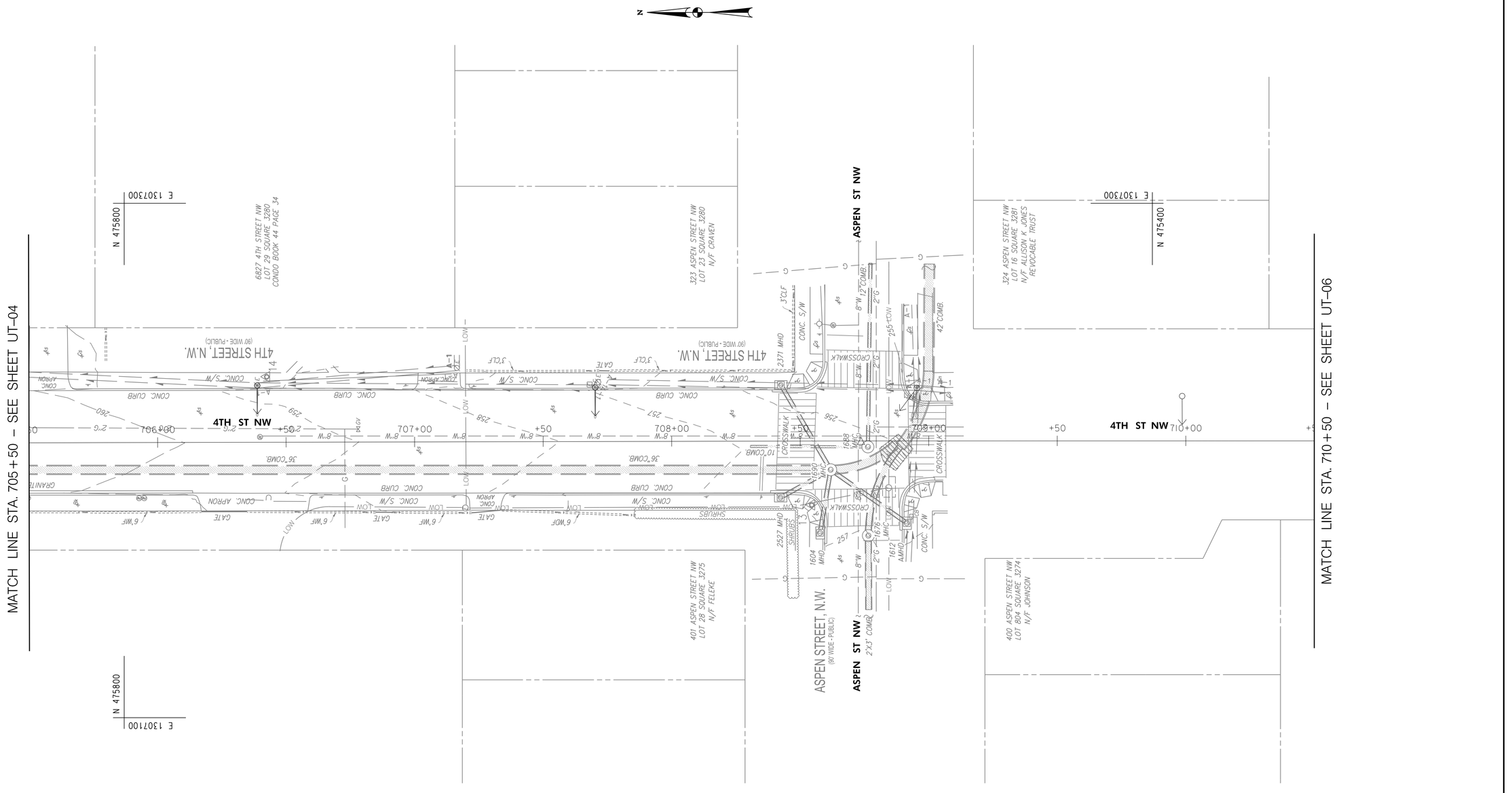
10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	27	75



30% DESIGN PLANS
NOT FOR CONSTRUCTION

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

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REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **UT–05**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

COMPOSITE UTILITY PLAN

DIVISION CHIEF
DATE
FILE
SHEET 27 OF 75

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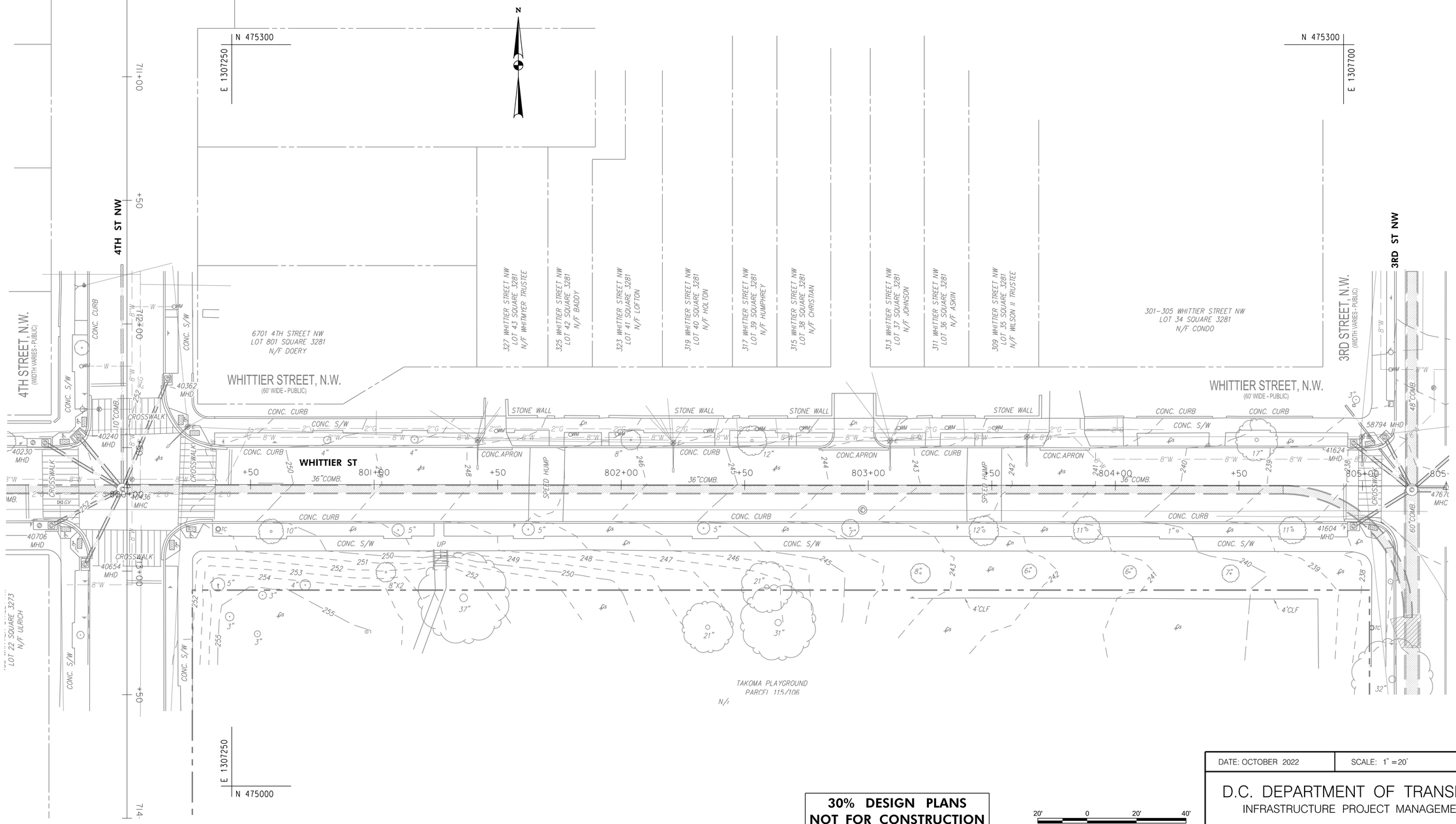
10/4/2022

MATCH LINE STA. 710+50 – SEE SHEET UT–05

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	28	75



30% DESIGN PLANS
NOT FOR CONSTRUCTION

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

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DATE: OCTOBER 2022 | SCALE: 1" = 20' | **UT–06**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

DIVISION CHIEF
DATE
FILE
SHEET 28 OF 75

COMPOSITE UTILITY PLAN

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10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.	XXXXXXXX	29	75

STRUCTURE TABLE		
NAME	STRUCTURE DETAILS	DETAILS
40230 MHD	RIM = 252.55 12" INV OUT = 247.85 SE	FOW
40240 MHD	RIM = 252.44 15" INV OUT = 248.09 SE	FOW
40362 MHD	RIM = 251.98 12" INV OUT = 246.88 S	FOW
40436 MHC	RIM = 251.85 10" INV IN = 242.96 N 36" INV IN = 239.67 W 12" INV IN = 244.85 SW 12" INV IN = 245.45 SW 12" INV IN = 246.37 NW 15" INV IN = 245.47 NW 12" INV IN = 245.80 N 36" INV OUT = 239.59 E	
40654 MHD	RIM = 252.10	BOT=245.95,FOW
40706 MHD	RIM = 252.46 12" INV OUT = 247.86 NE	FOW
41604 MHD	RIM = 237.80 12" INV OUT = 233.05 NE	FOW
41624 MHD	RIM = 238.54 15" INV OUT = 233.79 SE	FOW
47670 MHC	RIM = 237.60 18" INV IN = 226.81 E 48" INV IN = 225.91 N 15" INV IN = 229.86 NW 12" INV IN = 234.08 NW 12" INV IN = 233.60 SW 8" INV IN = 234.08 NW 60" INV OUT = 225.79 S	
50178 MHC	RIM = 237.82 18" INV IN = 227.41 E 12" INV IN = 234.17 N 18" INV OUT = 227.26 W	
58774 MHD	RIM = 238.58 12" INV OUT = 234.08 S	FOW
58794 MHD	RIM = 238.38 12" INV OUT = 233.48 SE	FOW

4TH ST NW

STRUCTURE TABLE		
NAME	STRUCTURE DETAILS	DETAILS
1781 DRAIN	RIM = 277.59	FOD, FOW
1850 GRATE	RIM = 274.48	BOT=268.45,FOW
1851 MHD	RIM = 274.56 12" INV IN = 270.21 N 18" INV IN = 267.71 NE 8" INV IN = 271.11 SE 12" INV OUT = 267.56 SW	
1858 DRAIN	RIM = 273.93 36" INV IN = 266.03 NW 15" INV IN = 270.13 NW 36" INV OUT = 266.03 SE	
1865 MHD	RIM = 274.59 15" INV OUT = 270.24 SE	
1901 MHD	RIM = 274.78 36" INV IN = 265.48 NW 12" INV IN = 266.88 NE 36" INV OUT = 265.43 SE	
1960 MHD	RIM = 274.86 36" INV IN = 264.79 NW 12" INV IN = 265.16 SW 36" INV OUT = 264.73 SE	
2129 DRAIN	RIM = 275.87 8" INV OUT = 271.47 NW	

STRUCTURE TABLE		
NAME	STRUCTURE DETAILS	DETAILS
1604 MHD	RIM = 257.24 15" INV OUT = 252.89 E	FOW
1612 MHD	RIM = 256.70	BOT=249.75,FOW
1676 MHC	RIM = 257.02 24" INV IN = 245.50 W 24" INV OUT = 245.50 E	
1688 MHC	RIM = 256.17 10" INV IN = 246.33 N 12" INV OUT = 245.83 E	
1690 MHC	RIM = 256.55 36" INV IN = 242.88 N 15" INV IN = 250.50 NE 15" INV IN = 250.55 NW 15" INV IN = 249.55 W 15" INV IN = 249.20 SW 36" INV OUT = 242.75 S	
2371 MHD	RIM = 256.19 15" INV OUT = 251.34 SW	FOW
2527 MHD	RIM = 257.04 15" INV OUT = 252.29 SE	FOW

STRUCTURE TABLE		
NAME	STRUCTURE DETAILS	DETAILS
3924 MHC	RIM = 274.80 36" INV IN = 256.38 N 36" INV OUT = 256.06 S	RECORD INVERTS
3995 MHS	RIM = 276.52 15" INV IN = 260.52 E 18" INV OUT = 260.50 S	RECORD INVERTS
3996 MHD	RIM = 275.82 24" INV IN = 267.55 W 12" INV IN = 263.15 NE 24" INV OUT = 263.02 S	
3997 MHD	RIM = 276.55 15" INV IN = 269.49 W 24" INV IN = 267.97 W 15" INV IN = 271.35 NW 24" INV OUT = 267.91 E	
4027 MHD	RIM = 275.33 12" INV IN = 263.85 N 12" INV OUT = 264.08 SW	
4298 DRAIN	RIM = 278.44 8" INV OUT = 274.97 W	
4932 MHC	RIM = 278.13 12" INV IN = 270.80 W 10" INV IN = 270.80 NW 12" INV OUT = 270.80 SE	RECORD INVERTS
4934 MHD	RIM = 278.11 15" INV IN = 274.26 S 15" INV IN = 270.25 W 15" INV IN = 273.78 SE 15" INV OUT = 270.17 E	
4939 MHC	RIM = 277.76 12" INV IN = 270.48 NW 10" INV IN = 270.48 E 15" INV OUT = 270.48 SE	RECORD INVERTS
4945 MHD	RIM = 278.39 12" INV IN = 274.85 N 15" INV IN = 272.20 W 15" INV IN = 272.64 W 12" INV IN = 275.60 E 24" INV OUT = 269.20 E	
5099 MHD	RIM = 278.91	BOT=274.41,FOW
5164 MHD	RIM = 277.98	BOT=271.38,FOW
59911 MHD	RIM = 270.97 36" INV IN = 258.02 E 36" INV OUT = 258.02 SW	RECORD INVERTS
60028	RIM = 279.52	FOD, FOW
60030 MHD	RIM = 279.45 18" INV IN = 274.72 W 15" INV IN = 274.87 NW 15" INV OUT = 274.22 E	
60034 DRAIN	RIM = 279.22 15" INV OUT = 273.31 E	
60037 MHD	RIM = 278.55 15" INV IN = 274.59 W 15" INV OUT = 274.54 N	
60043 MHC	RIM = 273.14 15" INV IN = 264.53 NW 15" INV OUT = 264.53 SE	RECORD INVERTS

STRUCTURE TABLE		
NAME	STRUCTURE DETAILS	DETAILS
2835 MHD	RIM = 262.28	FOD
2870 MHD	RIM = 263.38 15" INV OUT = 260.38 W	FOW
2942 MHD	RIM = 264.95 15" INV OUT = 259.60 S	FOW
2975 MHD	RIM = 264.37 15" INV IN = 258.17 SE 15" INV IN = 258.12 N 18" INV OUT = 258.07 W	
3000 MHD	RIM = 263.63 15" INV IN = 260.23 E 15" INV OUT = 258.73 NW	
3013 MHC	RIM = 263.42 12" INV IN = 258.55 W 12" INV OUT = 258.55 E	
3016 MHD	RIM = 262.12	FOD
3017 MHS	RIM = 262.05 18" INV IN = 256.43 NW 18" INV OUT = 256.43 E	
3023 MHC	RIM = 262.71 36" INV IN = 249.96 N 18" INV IN = 258.96 W 24" INV IN = 250.79 W 15" INV IN = 257.76 E 15" INV IN = 256.86 NE 12" INV IN = 258.36 NW 18" INV IN = 253.81 SW 36" INV OUT = 249.91 S	
3076 MHD	RIM = 262.99 18" INV OUT = 259.09 E	
3089 MHD	RIM = 262.61	
3092 MHD	RIM = 263.81 15" INV IN = 258.81 W 24" INV OUT = 255.86 S	
3094 MHS	RIM = 264.00 18" INV IN = 256.73 N 18" INV OUT = 256.73 SE	
3095 MHC	RIM = 264.17 36" INV IN = 250.32 N 15" INV IN = 258.77 W 18" INV IN = 257.07 E 15" INV IN = 258.67 N 36" INV OUT = 250.22 S	
3178 MHD	RIM = 265.34 15" INV OUT = 258.99 S	FOW
3209 MHD	RIM = 264.37 15" INV OUT = 259.77 E	

STRUCTURE TABLE		
NAME	STRUCTURE DETAILS	DETAILS
1284 MHD	RIM = 282.12	
1289 MHD	RIM = 281.84 15" INV IN = 278.04 N 15" INV IN = 276.14 S 15" INV IN = 275.34 NE 24" INV IN = 269.04 SW 36" INV OUT = 267.14 SE	
1388 MHD	RIM = 282.55	BOT=277.05,FOW
1456 MHD	RIM = 282.27 15" INV OUT = 276.62 N	FOW

STRUCTURE TABLE		
NAME	STRUCTURE DETAILS	DETAILS
53 MHD	RIM = 290.83	BOT=284.83,FOW
308 MHD	RIM = 289.57 21" INV IN = 278.82 NW 36" INV IN = 269.93 NW 36" INV OUT = 269.87 SE	
322 MHD	RIM = 288.37 18" INV IN = 281.92 NW 15" INV IN = 283.47 NE 21" INV OUT = 279.32 SE	
380 MHD	RIM = 290.30 18" INV IN = 285.20 NW 18" INV OUT = 285.20 SE	
470 MHD	RIM = 281.95 33" INV IN = 273.00 N 33" INV OUT = 273.00 S	RECORD INVERTS
547 DRAIN	RIM = 284.54	FOD, ABAND.?
583 MHD	RIM = 283.53 15" INV OUT = 277.38 SW	
638 MHD	RIM = 280.31 18" INV IN = 272.91 SW 15" INV IN = 273.41 NE 18" INV OUT = 272.76 NW	
655 MHD	RIM = 279.73 18" INV OUT = 274.58 W	
666 MHD	RIM = 279.66 18" INV OUT = 275.21 N	
679 MHD	RIM = 279.70 15" INV IN = 273.60 SW 18" INV IN = 275.00 E 18" INV OUT = 273.60 NE	RECORD INVERTS – INACCESSIBLE
686 MHD	RIM = 279.27 18" INV IN = 273.42 SW 18" INV IN = 274.47 S 18" INV IN = 274.27 E 18" INV OUT = 273.32 NE	
712 MHD	RIM = 280.09 18" INV OUT = 275.24 W	
794 GRATE	RIM = 280.25 18" INV OUT = 275.44 NE	
812 MHD	RIM = 280.11 18" INV IN = 275.00 SW 18" INV IN = 275.00 NE 18" INV OUT = 272.85 N	RECORD INVERTS – INACCESSIBLE
825 GRATE	RIM = 280.07 18" INV OUT = 275.17 SW	
839 GRATE	RIM = 280.08 15" INV OUT = 276.08 NE	
845 MHD	RIM = 280.87 33" INV IN = 272.47 N 36" INV IN = 271.52 SW 15" INV IN = 275.72 SW 18" INV IN = 271.47 SE 36" INV OUT = 271.42 NE	
893 MHD	RIM = 280.13 36" INV IN = 272.33 SW 18" INV IN = 272.23 S 36" INV OUT = 272.13 NE	
894 MHD	RIM = 280.39 8" INV IN = 276.79 NW 36" INV OUT = 272.79 NE	

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REVISIONS

DATE: OCTOBER 2022 | SCALE: | **UT–07**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. AF
DESIGNED BY AF
CHECKED BY MJG
DRAWN BY AF
PROJECT MGR. MJG

EXISTING RIM & INVERT ELEVATIONS

DIVISION CHIEF
DATE
FILE
SHEET 29 OF 75

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10/4/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		30	75

GENERAL NOTES

1. ALL CONSTRUCTION MATERIALS AND PROCEDURES SHALL BE GOVERNED BY THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES DATED 2013, ISSUED BY THE DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION EXCEPT AS AMMENDED BY THE SPECIAL PROVISIONS.

2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO BEGINNING WORK. ANY DAMAGES TO UTILITIES MUST BE REPAIRED OR REPLACED BY THE CONTRACTOR AS HIS OWN EXPENSE.

3. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTION TO PROTECT WALKS, GRADING, SIDEWALKS AND FEATURES OUTSIDE THE LIMITS OF WORK AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AS DIRECTED BY THE ENGINEER ANY SUCH OR OTHER DAMAGE SO CAUSED.

SIGNING AND PAVEMENT MARKINGS

1. ALL STRIPING AND SIGN WORK SHALL MEET ALL APPLICABLE DDOT STANDARDS AND SPECIFICATIONS AND 2009 MANUAL ON UNIFORM TRAFFIC CONTROL (MUTCD) REQUIREMENTS.

2. ALL PAVEMENT MARKINGS ARE THERMOPLASTIC UNLESS OTHERWISE NOTED.

3. ALL EXISTING PAVEMENT MARKINGS MAY NOT BE SHOWN. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE ERADICATED BY A METHOD APPROVED BY DDOT.

4. ALL SIGNS SHALL BE HIGH INTENSITY SHEETING MEETING THE REQUIREMENTS OF AASHTO M268.

5. PROPOSED SIGN POSTS SHALL BE LOCATED SO THAT PROPOSED EDGE OF SIGN PANELS ARE LOCATED A MINIUM OF 2 FEET FROM THE EDGE OF TRAIL AND 7' FROM THE SURFACE OF TRAIL.

6. PROPOSED SIGNS AT NEW LOCATIONS SHALL BE INSTALLED SO THEY DO NOT BLOCK THE VISIBILITY OF ANY EXISTING SIGNS OR SIGNALS.

7. PROPOSED SIGNS AND POST SHALL BE CLEAR OF EXISTING FIRE HYDRANTS, SURFACE UTILITY, AND OVERHEAD UTILITY EQUIPMENT A MINIMUM OF 10 FEET.

8. FOR NEW POST INSTALLATION, THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO CONFLICTING UNDERGROUND OR OVERHEAD UTILITIES.

9. SIGNS MOUNTED TO EXISTING LIGHT, SIGNAL OR UTILITY POLES SHALL BE FASTENED WITH A MANUFACTURED STEEL BANDING SYSTEM. POLES SHALL NOT BE DRILLED DIRECTLY. THE CONTRACTOR SHALL SUBMIT MANUFACTURER INFORMATION ON THE BANDING SYSTEM TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. THE COST FOR MOUNTING SIGNS IS INCLUDED IN THE UNIT BID PRICE FOR 620 014 TRAFFIC SIGN PANELS.

10. IF SIGN INSTALLATION IS SHOWN ON A POLE THAT IS NOT OWNED BY THE CITY, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF UTILITY COMPANY OR PROPERTY OWNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING REQUIRED PERMISSION.

11. ALL SIGN LOCATIONS SHOWN ON THE PLANS ARE SCHEMATIC AND MAY NOT REFLECT ACTUAL FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY EACH LOCATION PRIOR TO INSTALLING A SIGN. IF AT ANY POINT THE CONTRACTOR FINDS A CONFLICT, THE CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO INSTALLING THE PROPOSED SIGN. PROPOSED SIGN LOCATIONS CAN BE ADJUSTED AS APPROVED BY THE ENGINEER.

12. ALL EXISTING SIGNS MUST BE REPLACED IN-KIND FOLLOWING CONSTRUCTION. ANY FADED OR DAMAGED SIGNS MUST BE REPLACED. SIGN CONDITION TO BE VERIFIED DURING CONSTRUCTION

DETAIL OF PAVEMENT MARKINGS (IF SHOWN)

TRAIL

1. CENTERLINE

   A. 4-INCH YELLOW DASH LINES USED ON SHARED-USE PATH SHALL HAVE THE USUAL 1 TO 3 SEGMENT-TO-GAP RATIO. A NOMINAL 3 FOOT SEGMENT WITH A 9 FOOT GAP SHOULD BE USED.
   B. WHERE CONDITIONS MAKE IT DESIRABLE TO SEPARATE TWO DIRECTIONS OF TRAVEL AT A PARTICULAR LOCATION, A 4-INCH SOLID YELLOW LINE SHOULD BE USED TO INDICATE NO PASSING AND NO TRAVELING TO THE LEFT OF THE LINE.
   C. CENTERLINE LINES STOP ONE FOOT BEFORE CROSSWALK BACK EDGE LINE.

2. EDGELINES - 4-INCH, WHITE EDGELINES TO BE USED WHEN VERTICAL OBSTRUCTION ARE ADJACENT TO THE SHARED USE PATH AND PLACED LESS THAN TWO FEET HORIZONTALLY FROM THE PATH.

STOP LINES

1. ONE FOOT WIDE (UNLESS OTHERWISE NOTED), LOCATED SIX FEET BEFORE THE CROSSWALK.

CROSSWALKS

1. PEDESTRIAN CROSSWALK - TEN FEET WIDE, UNLESS OTHERWISE NOTED.

   A. EDGE LINES - SOLID WHITE LINES, 6 INCHES THICK

   B. STRIPED CROSSWALKS - TWO FOOT WIDE, WHITE STRIPED WITH TWO FOOT WIDE SPACING. MAKE STRIPES PARALLEL TO VEHICULAR WHEEL PATH.

   C. ALL SIDEWALK HANDICAP RAMPS MUST BE LOCATED WITHIN A CROSSWALK, EXCLUDING SIDE FLARES OF RAMPS.

DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR & PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: | **TD–1**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

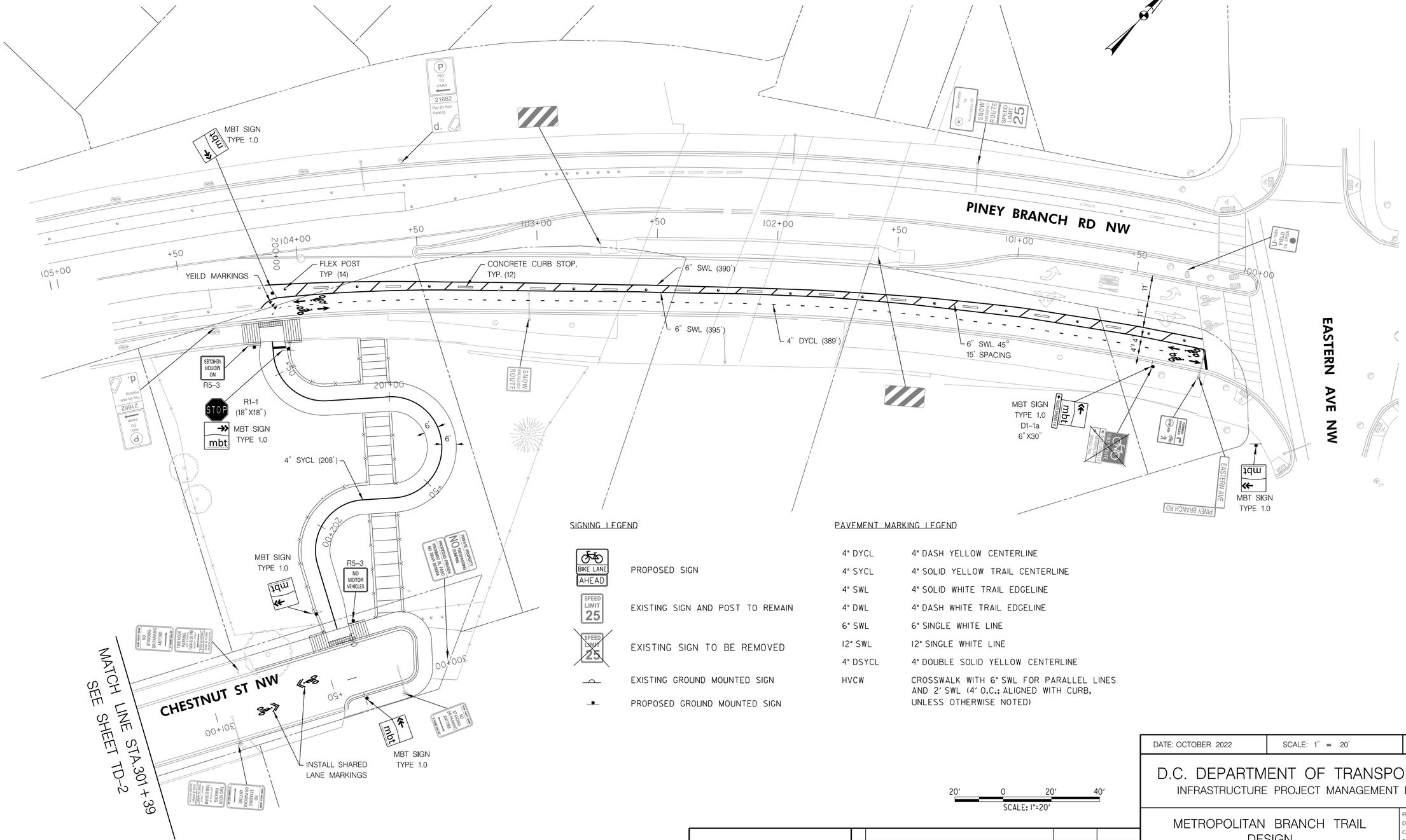
METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY RW
PROJECT MGR. CA

PAVEMENT MARKING & SIGNAGE PLANS
GENERAL NOTES

DIVISION CHIEF
DATE
FILE
SHEET 30 OF 75

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		31	75



SIGNING LEGEND

BIKE LANE AHEAD	PROPOSED SIGN
SPEED LIMIT 25	EXISTING SIGN AND POST TO REMAIN
SPEED LIMIT 25	EXISTING SIGN TO BE REMOVED
	EXISTING GROUND MOUNTED SIGN
	PROPOSED GROUND MOUNTED SIGN

PAVEMENT MARKING LEGEND

4" DYCL	4" DASH YELLOW CENTERLINE
4" SYCL	4" SOLID YELLOW TRAIL CENTERLINE
4" SWL	4" SOLID WHITE TRAIL EDGELINE
4" DWL	4" DASH WHITE TRAIL EDGELINE
6" SWL	6" SINGLE WHITE LINE
12" SWL	12" SINGLE WHITE LINE
4" DSYCL	4" DOUBLE SOLID YELLOW CENTERLINE
HVCW	CROSSWALK WITH 6" SWL FOR PARALLEL LINES AND 2' SWL (4' O.C.; ALIGNED WITH CURB, UNLESS OTHERWISE NOTED)

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

DRAFT PLANS NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW Suite 209
Washington, DC 20001 (202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **TD-2**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

SIGNING AND PAVEMENT MARKING PLANS

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA

DIVISION CHIEF

DATE
FILE
SHEET 31 OF 75

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9/29/2022

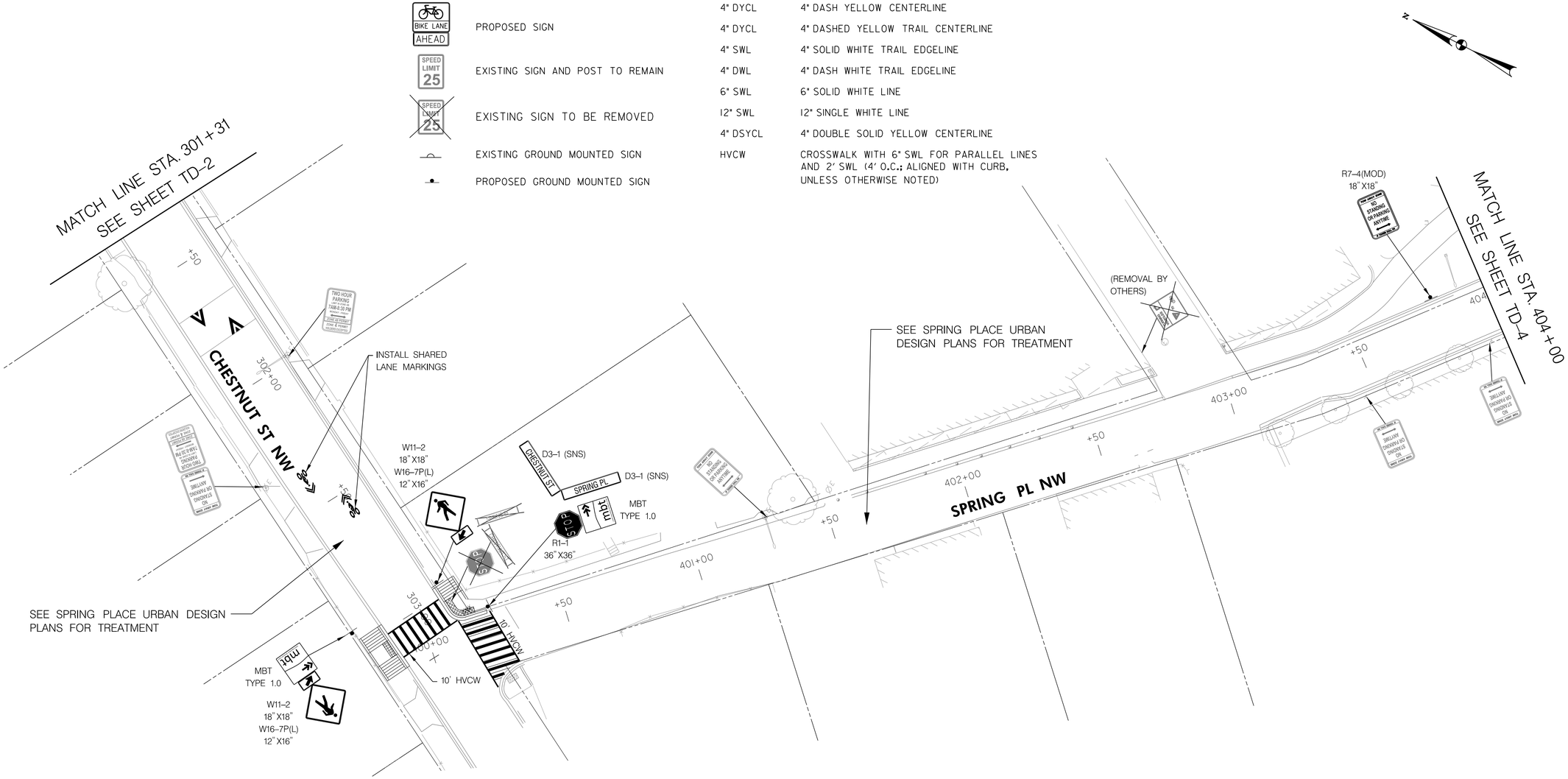
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		32	75

SIGNING LEGEND

BIKE LANE AHEAD	PROPOSED SIGN
SPEED LIMIT 25	EXISTING SIGN AND POST TO REMAIN
SPEED LIMIT 25	EXISTING SIGN TO BE REMOVED
	EXISTING GROUND MOUNTED SIGN
	PROPOSED GROUND MOUNTED SIGN

PAVEMENT MARKING LEGEND

4" DYCL	4" DASH YELLOW CENTERLINE
4" DYCL	4" DASHED YELLOW TRAIL CENTERLINE
4" SWL	4" SOLID WHITE TRAIL EDGELINE
4" DWL	4" DASH WHITE TRAIL EDGELINE
6" SWL	6" SOLID WHITE LINE
12" SWL	12" SINGLE WHITE LINE
4" DSYCL	4" DOUBLE SOLID YELLOW CENTERLINE
HVCW	CROSSWALK WITH 6" SWL FOR PARALLEL LINES AND 2' SWL (4' O.C.; ALIGNED WITH CURB, UNLESS OTHERWISE NOTED)



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

DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **TD-3**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

SIGNING AND PAVEMENT MARKING PLANS

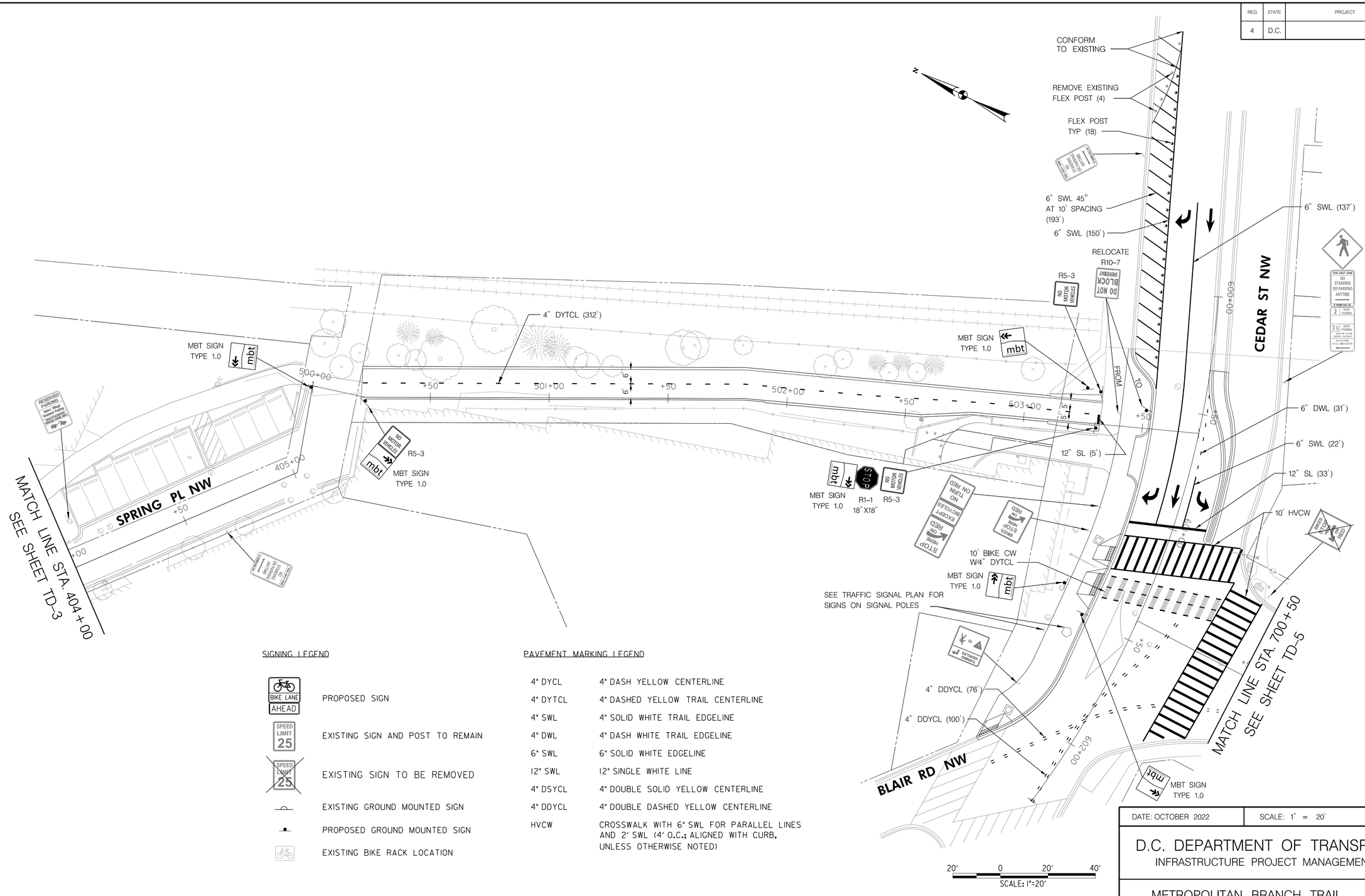
PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY RW
PROJECT MGR. CA

DIVISION CHIEF
DATE
FILE

SHEET 32 OF 75

C:\Users\bwillett\OneDrive - Fehr & Peers\Desktop\FnP_Projects\DC\DC21-0073Met\CAD\30_Submittal\0073-TD3.dgn
9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		33	75



SIGNING LEGEND

BIKE LANE AHEAD	PROPOSED SIGN
SPEED LIMIT 25	EXISTING SIGN AND POST TO REMAIN
SPEED LIMIT 25	EXISTING SIGN TO BE REMOVED
	EXISTING GROUND MOUNTED SIGN
	PROPOSED GROUND MOUNTED SIGN
	EXISTING BIKE RACK LOCATION

PAVEMENT MARKING LEGEND

4" DYCL	4" DASH YELLOW CENTERLINE
4" DYTCL	4" DASHED YELLOW TRAIL CENTERLINE
4" SWL	4" SOLID WHITE TRAIL EDGELINE
4" DWL	4" DASH WHITE TRAIL EDGELINE
6" SWL	6" SOLID WHITE EDGELINE
12" SWL	12" SINGLE WHITE LINE
4" DSYCL	4" DOUBLE SOLID YELLOW CENTERLINE
4" DDYCL	4" DOUBLE DASHED YELLOW CENTERLINE
HVCW	CROSSWALK WITH 6" SWL FOR PARALLEL LINES AND 2' SWL (4' O.C.; ALIGNED WITH CURB, UNLESS OTHERWISE NOTED)

DRAFT PLANS NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW Suite 209
Washington, DC 20001 (202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **TD-4**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

SIGNING AND PAVEMENT MARKING PLANS

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA

DIVISION CHIEF
DATE
FILE

SHEET 33 OF 75

C:\Users\bwillett\OneDrive - Fehr & Peers\Desktop\FnP_Projects\DC\DC21-0073Met\CAD\30_Submittal\0073-TD4.dgn
9/29/2022

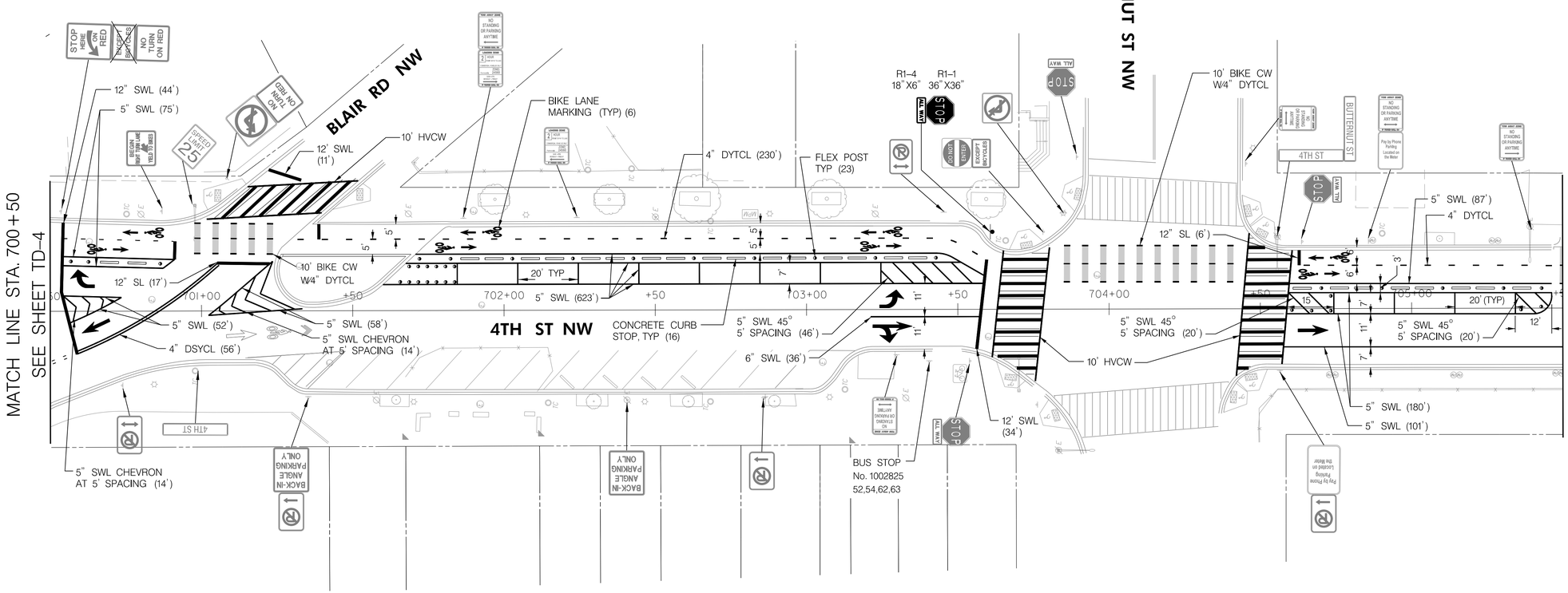
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		34	75

SIGNING LEGEND

BIKE LANE AHEAD	PROPOSED SIGN
SPEED LIMIT 25	EXISTING SIGN AND POST TO REMAIN
SPEED LIMIT 25	EXISTING SIGN TO BE REMOVED
	EXISTING GROUND MOUNTED SIGN
	PROPOSED GROUND MOUNTED SIGN

PAVEMENT MARKING LEGEND

4" DYCL	4" DASH YELLOW CENTERLINE
4" DYTCL	4" DASHED YELLOW TRAIL CENTERLINE
4" SWL	4" SOLID WHITE TRAIL EDGELINE
4" DWL	4" DASH WHITE TRAIL EDGELINE
5" SWL	5" SOLID WHITE EDGELINE
12" SWL	12" SINGLE WHITE LINE
4" DSYCL	4" DOUBLE SOLID YELLOW CENTERLINE
HVCW	CROSSWALK WITH 6" SWL FOR PARALLEL LINES AND 2' SWL (4' O.C.; ALIGNED WITH CURB, UNLESS OTHERWISE NOTED)



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

DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **TD-5**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

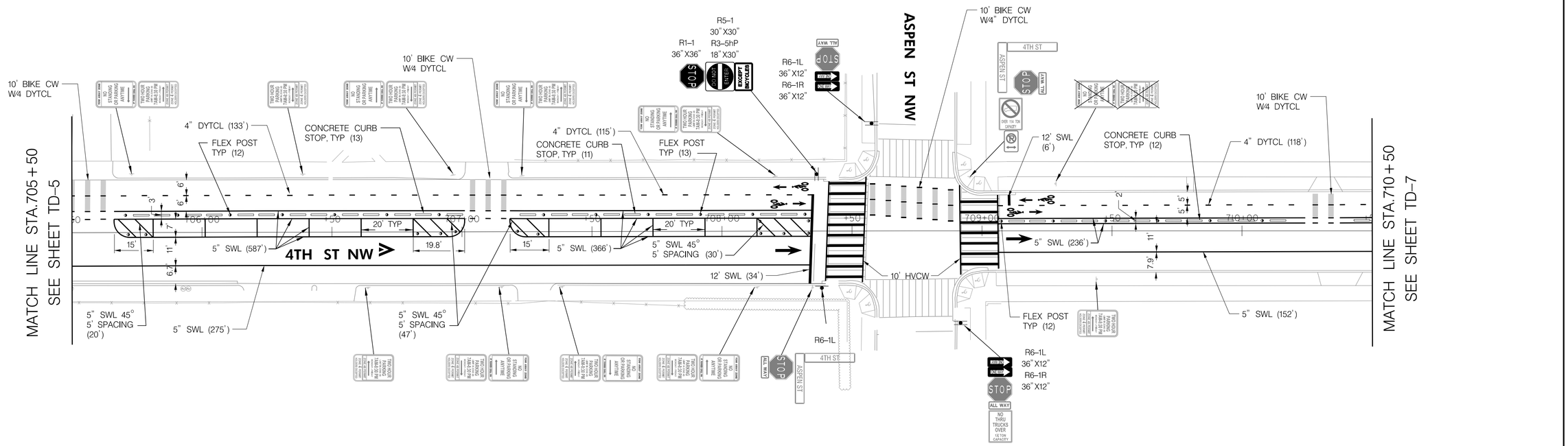
SIGNING AND PAVEMENT MARKING PLANS

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA

DIVISION CHIEF
DATE
FILE
SHEET 34 OF 75

C:\Users\bwillett\OneDrive - Fehr & Peers\Desktop\FnP_Projects\DC\DC21-0073Met\CAD\30_Submittal\0073-TD5.dgn
9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		35	75



SIGNING LEGEND

BIKE LANE AHEAD	PROPOSED SIGN
SPEED LIMIT 25	EXISTING SIGN AND POST TO REMAIN
SPEED LIMIT 25	EXISTING SIGN TO BE REMOVED
	EXISTING GROUND MOUNTED SIGN
	PROPOSED GROUND MOUNTED SIGN

PAVEMENT MARKING LEGEND

4" DYCL	4" DASH YELLOW CENTERLINE
4" DYTCL	4" DASHED YELLOW TRAIL CENTERLINE
4" SWL	4" SOLID WHITE TRAIL EDGELINE
4" DWL	4" DASH WHITE TRAIL EDGELINE
5" SWL	5" SINGLE WHITE LINE
12" SWL	12" SINGLE WHITE LINE
4" DSYCL	4" DOUBLE SOLID YELLOW CENTERLINE
HVCW	CROSSWALK WITH 6" SWL FOR PARALLEL LINES AND 2' SWL (4' O.C.; ALIGNED WITH CURB, UNLESS OTHERWISE NOTED)

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

DRAFT PLANS NOT FOR CONSTRUCTION

FEHR & PEERS
1003 K Street NW Suite 209
Washington, DC 20001 (202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **TD-6**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY RW
PROJECT MGR. CA

SIGNING AND PAVEMENT MARKING PLANS

DIVISION CHIEF
DATE
FILE
SHEET 35 OF 75

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9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		36	75

MATCH LINE STA.710+50
SEE SHEET TD-6

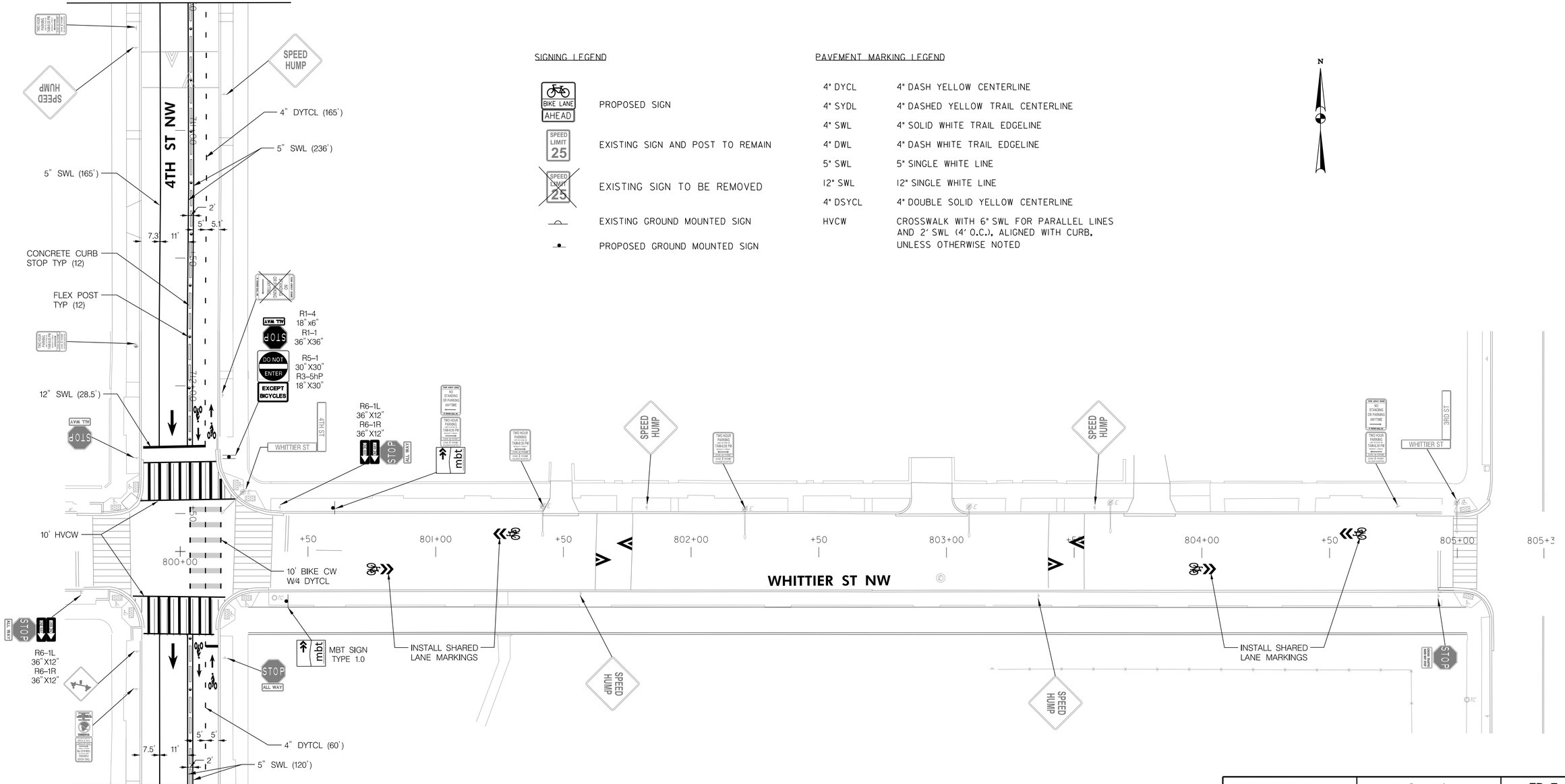
SIGNING LEGEND

- PROPOSED SIGN
- EXISTING SIGN AND POST TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING GROUND MOUNTED SIGN
- PROPOSED GROUND MOUNTED SIGN

PAVEMENT MARKING LEGEND

4" DYCL	4" DASH YELLOW CENTERLINE
4" SYDL	4" DASHED YELLOW TRAIL CENTERLINE
4" SWL	4" SOLID WHITE TRAIL EDGELINE
4" DWL	4" DASH WHITE TRAIL EDGELINE
5" SWL	5" SINGLE WHITE LINE
12" SWL	12" SINGLE WHITE LINE
4" DSYCL	4" DOUBLE SOLID YELLOW CENTERLINE
HVCW	CROSSWALK WITH 6" SWL FOR PARALLEL LINES AND 2' SWL (4' O.C.), ALIGNED WITH CURB, UNLESS OTHERWISE NOTED

N



MATCH LINE STA.713+57
SEE SHEET TD-8

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

DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **TD-7**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

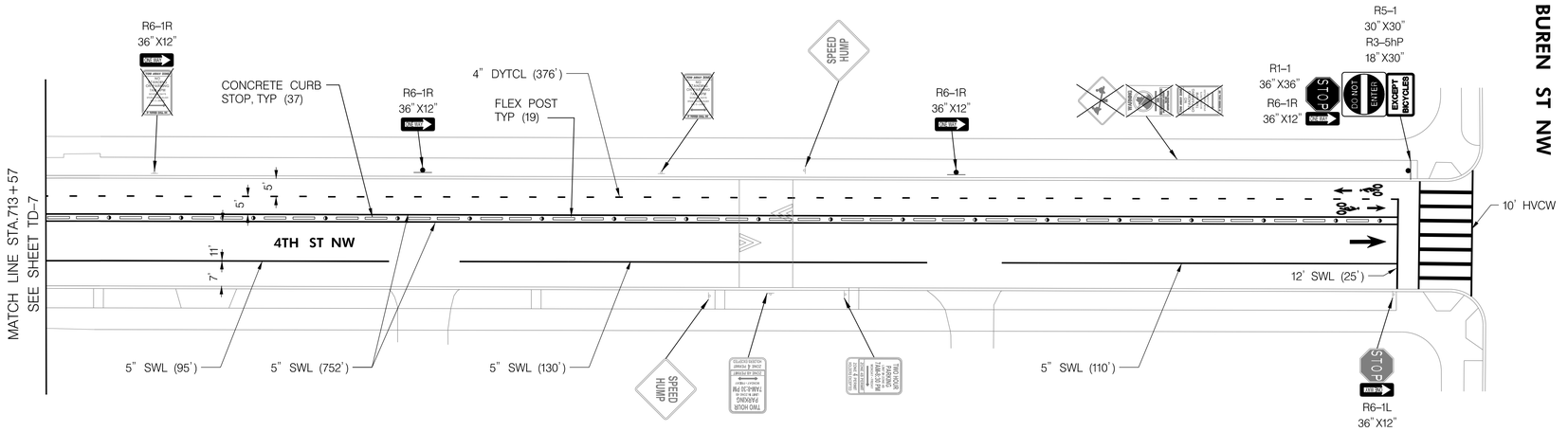
SIGNING AND PAVEMENT MARKING PLANS

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY RW
PROJECT MGR. CA

DIVISION CHIEF
DATE
FILE
SHEET 36 OF 75

C:\Users\bwillett\OneDrive - Fehr & Peers\Desktop\FnP_Projects\DC\DC21-0073Met\CAD\30_Submittal\0073-TD7.dgn
9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		37	75



SIGNING LEGEND

BIKE LANE AHEAD	PROPOSED SIGN
SPEED LIMIT 25	EXISTING SIGN AND POST TO REMAIN
SPEED LIMIT 25	EXISTING SIGN TO BE REMOVED
	EXISTING GROUND MOUNTED SIGN
	PROPOSED GROUND MOUNTED SIGN

PAVEMENT MARKING LEGEND

4" DYCL	4" DASH YELLOW CENTERLINE
4" DYTCL	4" DASHED YELLOW TRAIL CENTERLINE
4" SWL	4" SOLID WHITE TRAIL EDGELINE
4" DWL	4" DASH WHITE TRAIL EDGELINE
5" SWL	5" SINGLE WHITE LINE
12" SWL	12" SINGLE WHITE LINE
4" DSYCL	4" DOUBLE SOLID YELLOW CENTERLINE
HVCW	CROSSWALK WITH 6" SWL FOR PARALLEL LINES AND 2' SWL (4' O.C.; ALIGNED WITH CURB, UNLESS OTHERWISE NOTED)

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

DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **TD-8**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY XX
DRAWN BY RW
PROJECT MGR. CA

SIGNING AND PAVEMENT MARKING PLANS

DIVISION CHIEF
DATE
FILE
SHEET 37 OF 75

W:\DC N Drive\Projects\2021\DC21-0073.00 Met Branch Trail Design & Construction\CAD\30.Submittal\0073-TD8.dgn
10/3/2022

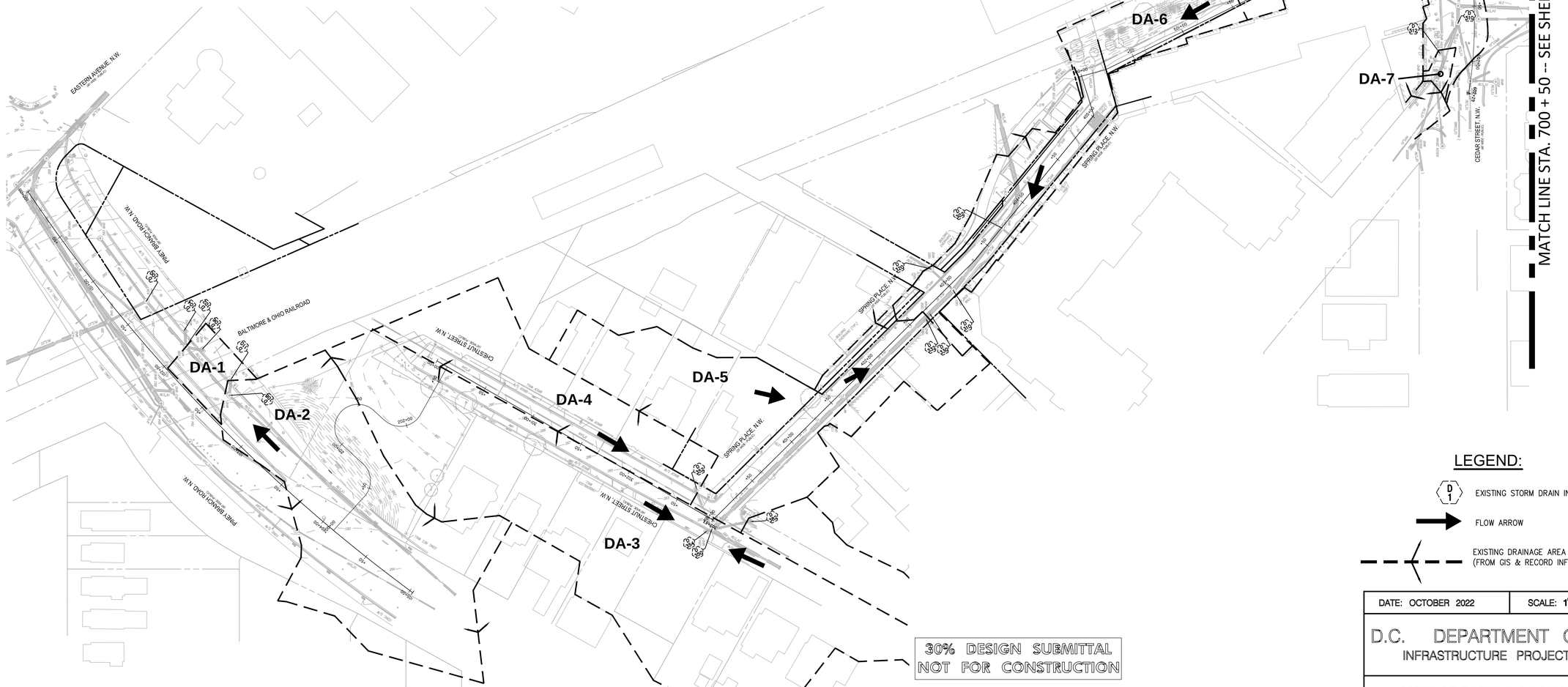
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		38	75

EXISTING DRAINAGE ARAEAS & STORM SEWER INLET COMPUTATIONS

Project: Metro Branch Trail

DA	MBT Segment	INLET Inlet Number	A Drainage Area	C C Value	Q Incr. Q	Q Carry Over	Q TOTAL	S Long. Slope	Sx Cross Slops of Road	T Spread (Appx 9C-5)	E Efficiency	Q Intercepted Q	Qb Bypass	Bypass to Inlet #	d Ponding Depth	h Curb Inlet Opening	d/H ratio	T SPREAD AT SAG	Allowable Spread
DA-2	1	D110	0.83	0.66	3.94	0.00	3.94	1.50%	2.40%	9.73	0.58	2.28	1.67	D106					
DA-1	1	D106	0.07	0.90	0.45	1.67	2.12	0.01%	2.20%	20.84		0.00	0.00		0.27	0.46	0.58	12.11	18'
DA-3	3	D354	1.40	0.68	6.83	0.00	6.83	0.01%	1.70%	37.95		0.00	0.00		0.58	0.46	1.27	34.32	8'
DA-4	3	D352	0.41	0.63	1.84	0.00	1.84	2.80%	3.70%	4.96	0.44	0.80	1.04	D332					
DA-5	4	D332	0.74	0.81	4.25	1.04	5.29	2.10%	1.70%	12.66	0.23	1.19	4.10	D330					
DA-6	4	D330	0.48	0.71	2.45	4.10	6.54	2.10%	1.70%			0.00	0.00		0.40	0.46	0.87	23.57	8'
DA-7	5	D512	0.02	0.90	0.10	0.00	0.10	4.00%	1.30%	3.04	1.00	0.10	0.00						

INSUFFICIENT RECORDS AVAILABLE FOR ANALYSIS OF EXISTING DOWNSTREAM INLET; PLAN ENSURES NO INCREASE IN RUNOFF BEYOND PROJECT AREA.
SEE DA-E01 FOR EXISTING CONDITIONS



LEGEND:

- EXISTING STORM DRAIN INLET LABEL (D / 1)
- FLOW ARROW
- EXISTING DRAINAGE AREA BOUNDARY (FROM GIS & RECORD INFORMATION)

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

designgreen
Ecological · Civil · Science · Engineering
800 Maine Avenue SW | #200, Washington, DC 20024
P. 202.888.0640 F. 202.204.5901
www.designgreenllc.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 50' | DA-E01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

EXISTING DRAINAGE AREA PLAN

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DIVISION CHIEF
DATE
FILE
SHEET 38 OF 75

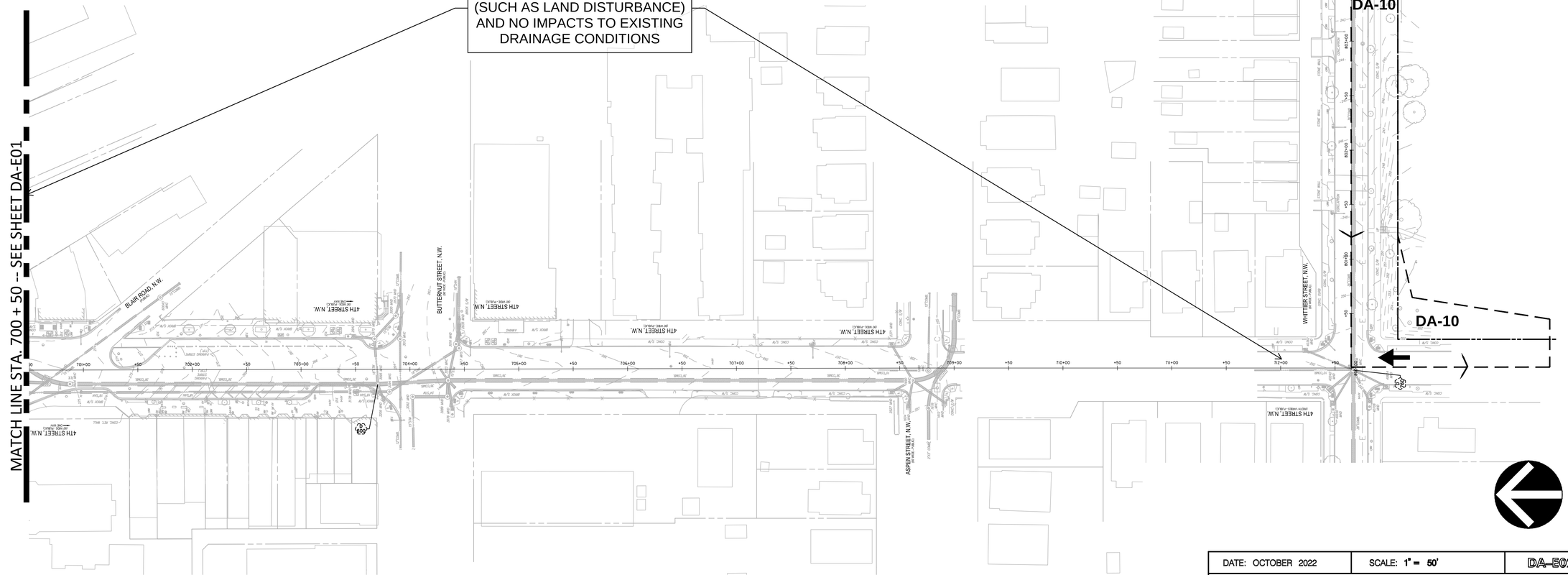
$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		39	75

EXISTING DRAINAGE ARAEAS & STORM SEWER INLET COMPUTATIONS

Project: Metro Branch Trail

		INLET					A	C	Q	Q	Q	S	Sx	T	E	Q	Qb		d	h	d/H	T
DA	MBT Segment	Inlet Number	Type of Inlet	Number of Inlets	Sag Condition	Length of Inlet	Drainage Area	C Value	Incr. Q	Carry Over	TOTAL	Long. Slope	Cross Slops of Road	Spread (Appx 9C-5)	Efficiency	Intercepted Q	Bypass	Bypass to Inlet #	Ponding Depth	Curb Inlet Opening	d/H ratio	SPREAD AT SAG
DA-10	6	D712	Curb Inlet	SINGLE		4.83	0.66	0.62	2.95	0.00	2.95	3.10%	3.00%	6.63	0.33	0.96	1.98					



LEGEND:

- EXISTING STORM DRAIN INLET LABEL
- FLOW ARROW
- EXISTING DRAINAGE AREA BOUNDARY (FROM GIS & RECORD INFORMATION)

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

designgreen
Ecological · Civil · Science · Engineering
800 Maine Avenue SW | #200, Washington, DC 20024
P. 202.888.0640 F. 202.204.5901
www.designgreenllc.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 50' | DA-E02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

EXISTING DRAINAGE AREA PLAN

DIVISION CHIEF
DATE
FILE
SHEET 39 OF 75

$FILE$
$DATE$

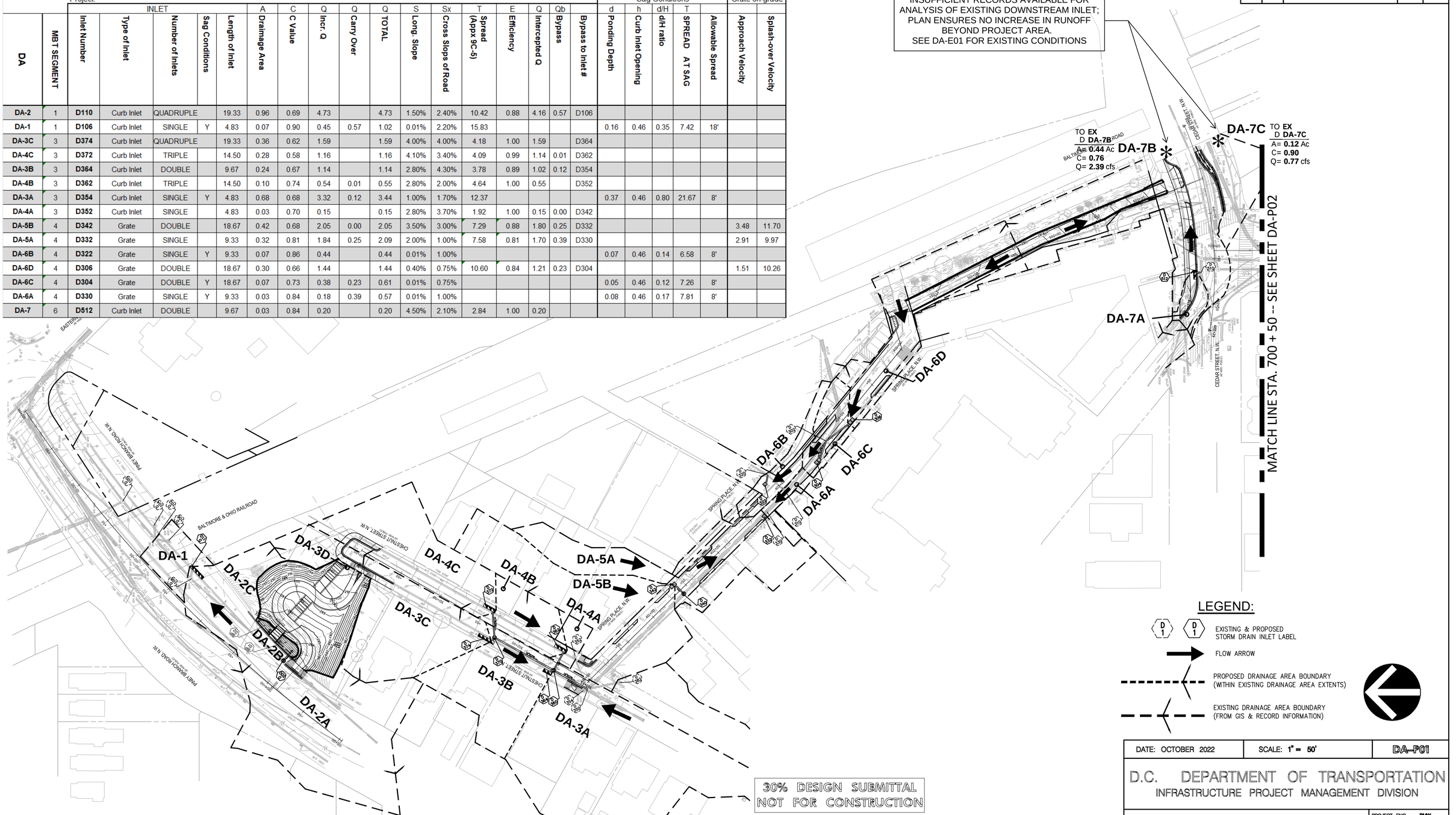
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		40	75

PROPOSED DRAINAGE AREAS & STORM SEWER INLET COMPUTATIONS

Project:

DA	MBT SEGMENT	INLET					A	C	Q	Q	Q	S	Sx	T	E	Q	Qb		Sag Conditions						Grate on-grade	
		Inlet Number	Type of Inlet	Number of Inlets	Sag Conditions	Length of Inlet	Drainage Area	C Value	Incr. Q	Carry Over	TOTAL	Long. Slope	Cross Slops of Road	Spread (Appx 9C-5)	Efficiency	Intercepted Q	Bypass	Bypass to Inlet #	d	h	d/H	T	Allowable Spread	Approach Velocity	Splash-over Velocity
																			Ponding Depth	Curb Inlet Opening	d/H ratio	SPREAD AT SAG			
DA-2	1	D110	Curb Inlet	QUADRUPLE		19.33	0.96	0.69	4.73		4.73	1.50%	2.40%	10.42	0.88	4.16	0.57	D106							
DA-1	1	D106	Curb Inlet	SINGLE	Y	4.83	0.07	0.90	0.45	0.57	1.02	0.01%	2.20%	15.83					0.16	0.46	0.35	7.42	18'		
DA-3C	3	D374	Curb Inlet	QUADRUPLE		19.33	0.36	0.62	1.59		1.59	4.00%	4.00%	4.18	1.00	1.59		D364							
DA-4C	3	D372	Curb Inlet	TRIPLE		14.50	0.28	0.58	1.16		1.16	4.10%	3.40%	4.09	0.99	1.14	0.01	D362							
DA-3B	3	D364	Curb Inlet	DOUBLE		9.67	0.24	0.67	1.14		1.14	2.80%	4.30%	3.78	0.89	1.02	0.12	D354							
DA-4B	3	D362	Curb Inlet	TRIPLE		14.50	0.10	0.74	0.54	0.01	0.55	2.80%	2.00%	4.64	1.00	0.55		D352							
DA-3A	3	D354	Curb Inlet	SINGLE	Y	4.83	0.68	0.68	3.32	0.12	3.44	1.00%	1.70%	12.37					0.37	0.46	0.80	21.67	8'		
DA-4A	3	D352	Curb Inlet	SINGLE		4.83	0.03	0.70	0.15		0.15	2.80%	3.70%	1.92	1.00	0.15	0.00	D342							
DA-5B	4	D342	Grate	DOUBLE		18.67	0.42	0.68	2.05	0.00	2.05	3.50%	3.00%	7.29	0.88	1.80	0.25	D332						3.48	11.70
DA-5A	4	D332	Grate	SINGLE		9.33	0.32	0.81	1.84	0.25	2.09	2.00%	1.00%	7.58	0.81	1.70	0.39	D330						2.91	9.97
DA-6B	4	D322	Grate	SINGLE	Y	9.33	0.07	0.86	0.44		0.44	0.01%	1.00%						0.07	0.46	0.14	6.58	8'		
DA-6D	4	D306	Grate	DOUBLE		18.67	0.30	0.66	1.44		1.44	0.40%	0.75%	10.60	0.84	1.21	0.23	D304						1.51	10.26
DA-6C	4	D304	Grate	DOUBLE	Y	18.67	0.07	0.73	0.38	0.23	0.61	0.01%	0.75%						0.05	0.46	0.12	7.26	8'		
DA-6A	4	D330	Grate	SINGLE	Y	9.33	0.03	0.84	0.18	0.39	0.57	0.01%	1.00%						0.08	0.46	0.17	7.81	8'		
DA-7	6	D512	Curb Inlet	DOUBLE		9.67	0.03	0.84	0.20		0.20	4.50%	2.10%	2.84	1.00	0.20									

INSUFFICIENT RECORDS AVAILABLE FOR ANALYSIS OF EXISTING DOWNSTREAM INLET; PLAN ENSURES NO INCREASE IN RUNOFF BEYOND PROJECT AREA.
SEE DA-E01 FOR EXISTING CONDITIONS



LEGEND:

- EXISTING & PROPOSED STORM DRAIN INLET LABEL
- FLOW ARROW
- PROPOSED DRAINAGE AREA BOUNDARY (WITHIN EXISTING DRAINAGE AREA EXTENTS)
- EXISTING DRAINAGE AREA BOUNDARY (FROM GIS & RECORD INFORMATION)

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

designgreen
Ecological · Civil · Science · Engineering
800 Maine Avenue SW | #200, Washington, DC 20024
P. 202.888.0640 F. 202.204.5901
www.designgreenllc.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 50' | DA-P01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

PROPOSED DRAINAGE AREA PLAN

DIVISION CHIEF
DATE
FILE
SHEET 40 OF 75

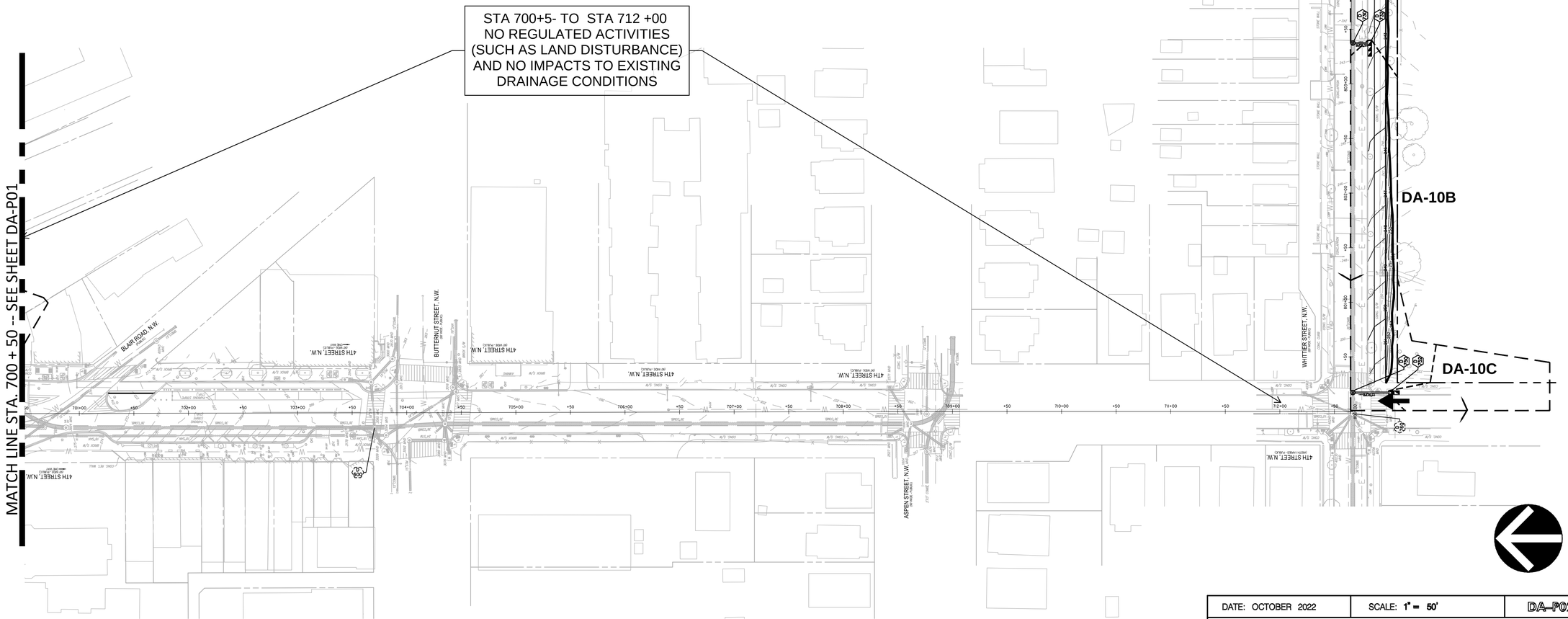
$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		41	75

PROPOSED DRAINAGE AREAS & STORM SEWER INLET COMPUTATIONS

Project:

		INLET					A	C	Q	Q	Q	S	Sx	T	E	Q	Qb		Sag Conditions					Grate on-grade	
DA	MBT SEGMENT	Inlet Number	Type of Inlet	Number of Inlets	Sag Conditions	Length of Inlet	Drainage Area	C Value	Incr. Q	Carry Over	TOTAL	Long. Slope	Cross Slops of Road	Spread (Appx 9C-5)	Efficiency	Intercepted Q	Bypass	Bypass to Inlet #	d Ponding Depth	h Curb Inlet Opening	d/H ratio	T SPREAD AT SAG	Allowable Spread	Approach Velocity	Splash-over Velocity
DA-10C	6	D752	Curb Inlet	DOUBLE		9.67	0.15	0.59	0.62		0.62	1.00%	2.00%	5.89	1.00	0.62		D732							
DA-10B	6	D732	Curb Inlet	TRIPLE		14.50	0.36	0.68	1.74		1.74	2.50%	3.10%	5.55	0.96	1.67	0.08	D722							
DA-10A	6	D722	Curb Inlet	TRIPLE		14.50	0.16	0.69	0.77	0.08	0.84	3.10%	3.00%	4.15	1.00	0.84									



LEGEND:

- D1 / D1 — EXISTING & PROPOSED STORM DRAIN INLET LABEL
- FLOW ARROW
- PROPOSED DRAINAGE AREA BOUNDARY (WITHIN EXISTING DRAINAGE AREA EXTENTS)

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 50' | DA-P02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

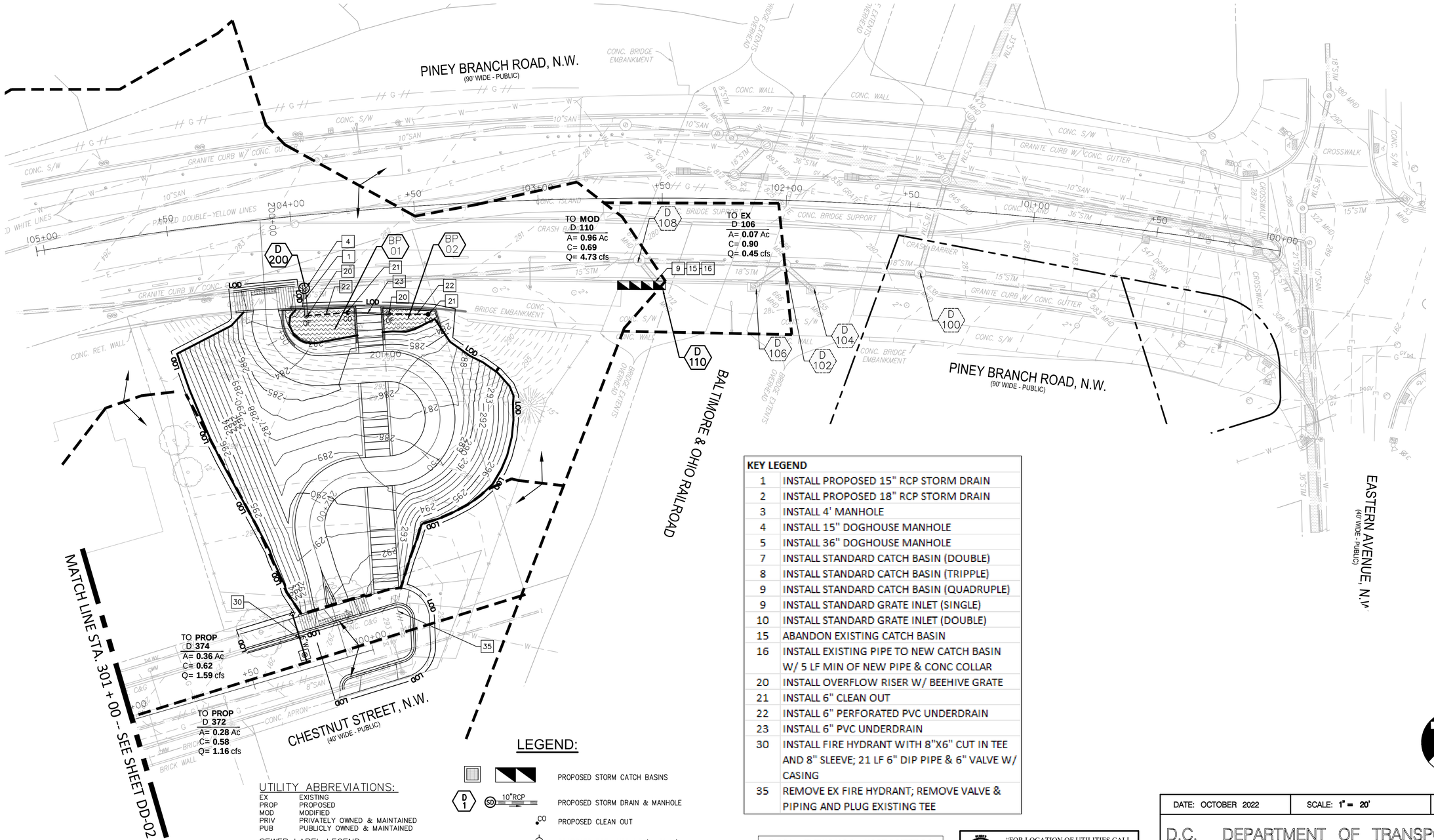
PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

PROPOSED DRAINAGE AREA PLAN

DIVISION CHIEF
DATE
FILE
SHEET 41 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		42	75



KEY LEGEND	
1	INSTALL PROPOSED 15" RCP STORM DRAIN
2	INSTALL PROPOSED 18" RCP STORM DRAIN
3	INSTALL 4' MANHOLE
4	INSTALL 15" DOGHOUSE MANHOLE
5	INSTALL 36" DOGHOUSE MANHOLE
7	INSTALL STANDARD CATCH BASIN (DOUBLE)
8	INSTALL STANDARD CATCH BASIN (TRIPPLE)
9	INSTALL STANDARD CATCH BASIN (QUADRUPLE)
9	INSTALL STANDARD GRATE INLET (SINGLE)
10	INSTALL STANDARD GRATE INLET (DOUBLE)
15	ABANDON EXISTING CATCH BASIN
16	INSTALL EXISTING PIPE TO NEW CATCH BASIN W/ 5 LF MIN OF NEW PIPE & CONC COLLAR
20	INSTALL OVERFLOW RISER W/ BEEHIVE GRATE
21	INSTALL 6" CLEAN OUT
22	INSTALL 6" PERFORATED PVC UNDERDRAIN
23	INSTALL 6" PVC UNDERDRAIN
30	INSTALL FIRE HYDRANT WITH 8"X6" CUT IN TEE AND 8" SLEEVE; 21 LF 6" DIP PIPE & 6" VALVE W/ CASING
35	REMOVE EX FIRE HYDRANT; REMOVE VALVE & PIPING AND PLUG EXISTING TEE

SEE STORM DRAINAGE COMPUTATIONS FOR DETAILED STRUCTURE INFORMATION (DD-20)

SEE STORMWATER MANAGEMENT PLANS (SW-01) FOR DETAILS PERTAINING TO BIOPLANTER SECTIONS (BP01 & BP02)

UTILITY ABBREVIATIONS:

EX	EXISTING
PROP	PROPOSED
MOD	MODIFIED
PRIV	PRIVATELY OWNED & MAINTAINED
PUB	PUBLICLY OWNED & MAINTAINED

SEWER LABEL LEGEND:

CO	CLEAN OUT
CS	COMBINED SEWER
MH	MANHOLE
OF	OVERFLOW
OW	OBSERVATION WELL
PERF	PERFORATED
SS	SANITARY SEWER
SD	STORM DRAIN
UD	UNDERDRAIN

WATER LABEL LEGEND:

FH	FIRE HYDRANT
SL	SLEEVE
T	TEE
V	GATE VALVE
WM	WATER MAIN

LEGEND:

- PROPOSED STORM CATCH BASINS
- D 1 / SD 10"RCP — PROPOSED STORM DRAIN & MANHOLE
- CO — PROPOSED CLEAN OUT
- PROPOSED FIRE HYDRANT (W-50.01)
- 8"W — PROPOSED DIP WATER MAIN & VALVE
- TP — TEST PIT
- ABANDONED UTILITIES
- REMOVED UTILITIES
- DRAINAGE DIVIDES (EXISTING DRAINAGE DIVIDES FROM GIS & RECORD INFORMATION)

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"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO or 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | DD-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

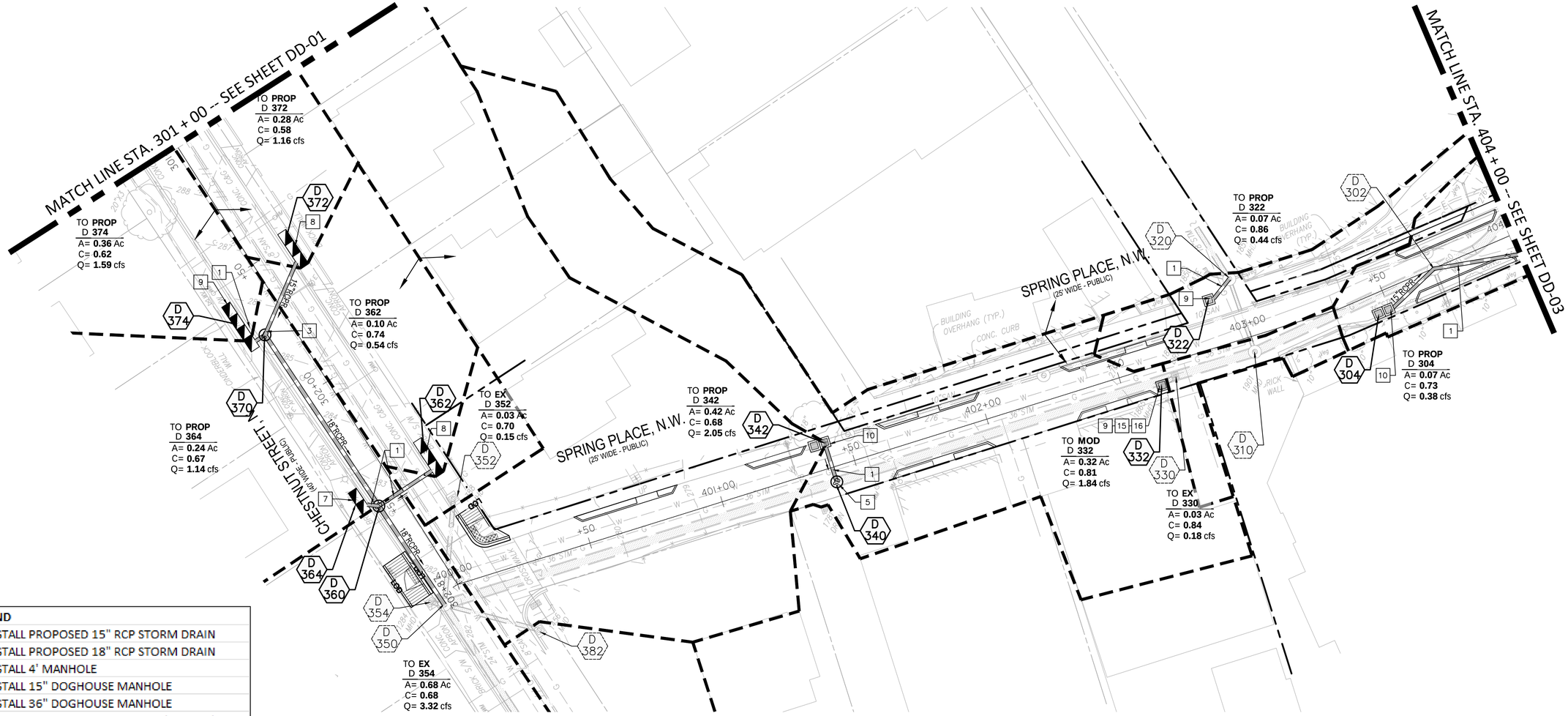
DRAINAGE PLAN

PROJECT ENG.	BMW
DESIGNED BY	BMW
CHECKED BY	RB
DRAWN BY	BMW
PROJECT MGR.	RB

DIVISION CHIEF
DATE
FILE
SHEET 42 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		43	75



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SEE STORM DRAINAGE COMPUTATIONS FOR DETAILED STRUCTURE INFORMATION (DD-20)

UTILITY ABBREVIATIONS:

EX	EXISTING
PROP	PROPOSED
MOD	MODIFIED
PRIV	PRIVATELY OWNED & MAINTAINED
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SEWER LABEL LEGEND:

CO	CLEAN OUT
CS	COMBINED SEWER
MH	MANHOLE
OF	OVERFLOW
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SS	SANITARY SEWER
SD	STORM DRAIN
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WATER LABEL LEGEND:

FH	FIRE HYDRANT
SL	SLEEVE
T	TEE
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LEGEND:

- PROPOSED STORM CATCH BASINS
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | DD–02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

DRAINAGE PLAN

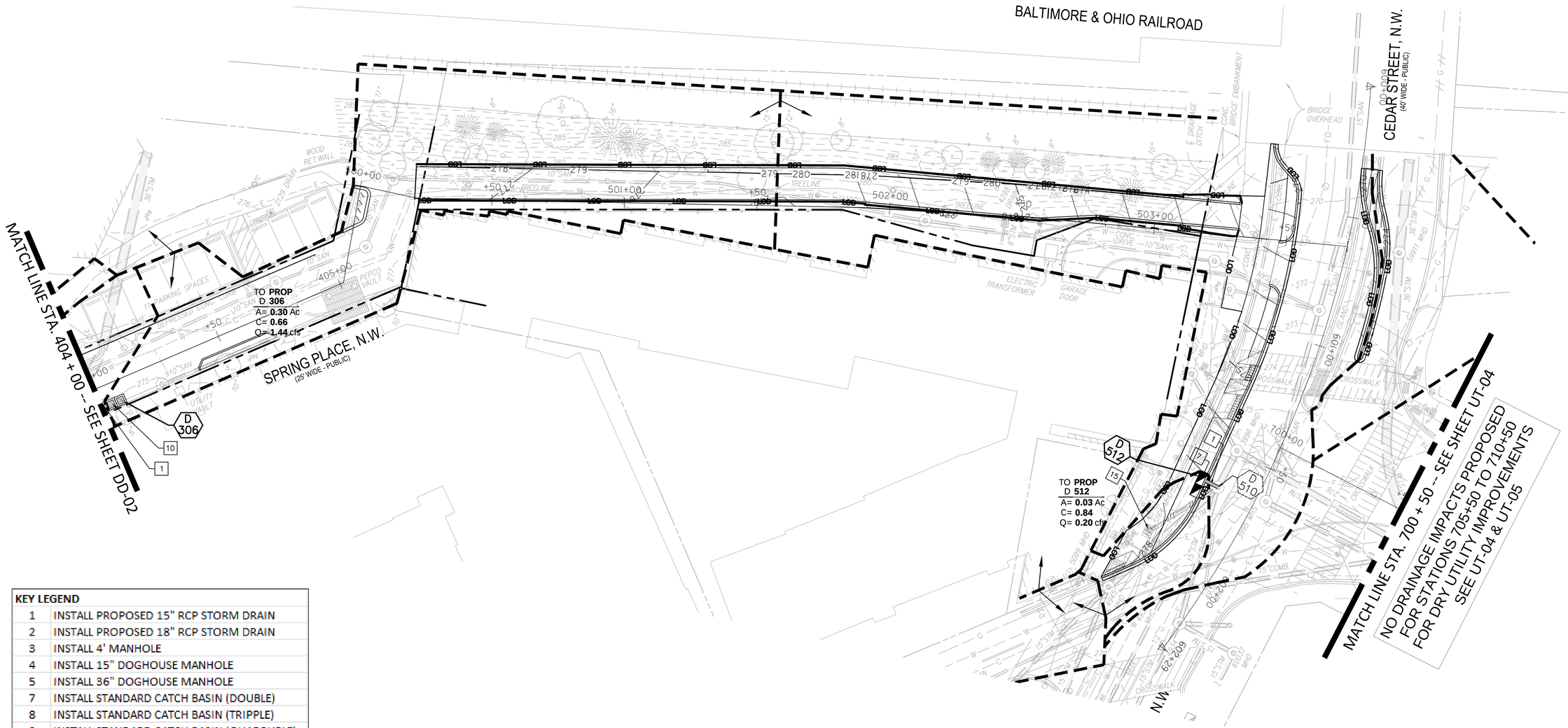
PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RB
DRAWN BY BMW
PROJECT MGR. RB

DIVISION CHIEF
DATE
FILE

SHEET 43 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		44	75



KEY LEGEND	
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SEE STORM DRAINAGE COMPUTATIONS FOR DETAILED STRUCTURE INFORMATION (DD-20)

UTILITY ABBREVIATIONS:

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SEWER LABEL LEGEND:

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CS	COMBINED SEWER
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OF	OVERFLOW
OW	OBSERVATION WELL
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SS	SANITARY SEWER
SD	STORM DRAIN
UD	UNDERDRAIN

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FH	FIRE HYDRANT
SL	SLEEVE
T	TEE
V	GATE VALVE
WM	WATER MAIN

LEGEND:

- PROPOSED STORM CATCH BASINS
- PROPOSED SEPARATE STORM DRAIN & MANHOLE (D 1, SD 10"RCP)
- PROPOSED CLEAN OUT (CO)
- PROPOSED FIRE HYDRANT (W-50.01)
- PROPOSED DIP WATER MAIN & VALVE (8"W)
- TEST PIT (TP)
- ABANDONED UTILITIES
- REMOVED UTILITIES
- DRAINAGE DIVIDES (EXISTING DRAINAGE DIVIDES FROM GIS & RECORD INFORMATION)

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | DD-03

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

DRAINAGE PLAN

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DIVISION CHIEF
DATE
FILE

SHEET 44 OF 75

$FILE$
$DATE$

MATCH LINE STA. 710 + 50 -- SEE SHEET UT-05

NO DRAINAGE IMPACTS PROPOSED FOR STATIONS 705+50 TO 710+50 FOR DRY UTILITY IMPROVEMENTS SEE UT-04 & UT-05

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		45	75

KEY LEGEND

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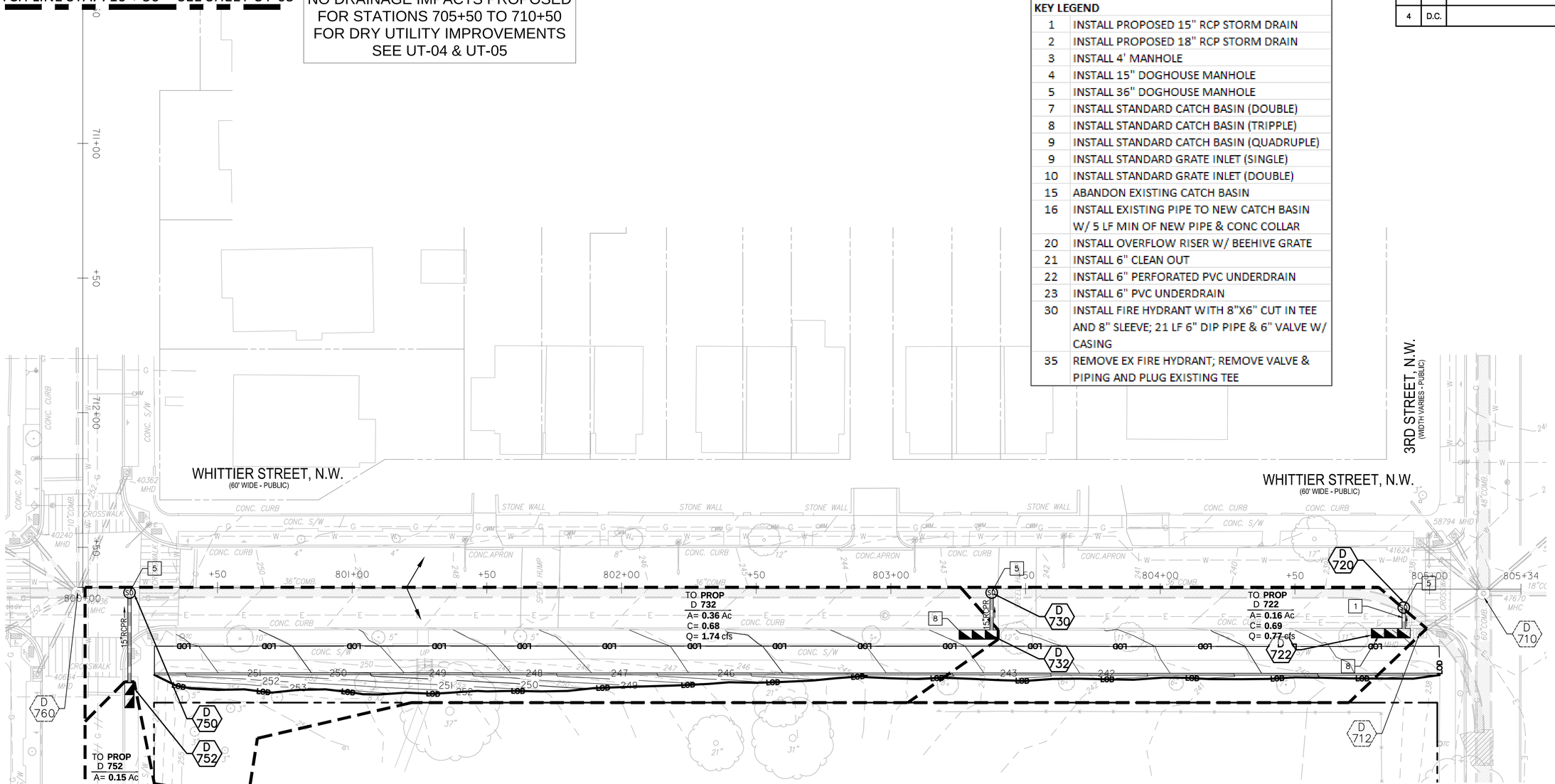

SEE STORM DRAINAGE COMPUTATIONS FOR DETAILED STRUCTURE INFORMATION (DD-20)

LEGEND:

- PROPOSED STORM CATCH BASINS
- D 1 / SD 10"RCP — PROPOSED SEPARATE STORM DRAIN & MANHOLE
- CO — PROPOSED CLEAN OUT
- PROPOSED FIRE HYDRANT (W-50.01)
- 8"W — PROPOSED DIP WATER MAIN & VALVE
- TP — TEST PIT
- ABANDONED UTILITIES
- REMOVED UTILITIES
- DRAINAGE DIVIDES (EXISTING DRAINAGE DIVIDES FROM GIS & RECORD INFORMATION)

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T	TEE
V	GATE VALVE
WM	WATER MAIN

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | DD-06

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.	BMW
DESIGNED BY	BMW
CHECKED BY	RS
DRAWN BY	BMW
PROJECT MGR.	RS

DRAINAGE PLAN

DIVISION CHIEF
DATE
FILE
SHEET 45 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		46	75

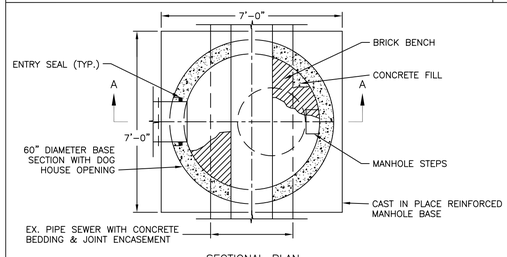
General Construction Notes

1. **Contact:** Notify the following DC Water departments prior to the commencement of utility construction:
   a. Construction Inspection Section at 202-787-4024 at least two weeks prior to the commencement of utility construction to schedule pre-construction meeting.
   b. Department of Water Services at 202-612-3400 at least one week prior to the commencement of water utility construction.
   c. Department of Sewer Services at 202-264-3862 or 3873 at least one week prior to the commencement of sewer utility construction.
2. **Standards:** All construction, materials, and appurtenances shall comply with the latest editions of the DC Water Project Design Manual, Standard Details & Design Guidelines, and Specifications.
3. **Lead Service Replacement:** If this project includes the replacement of a water main that has existing lead water service laterals, the Contractor is responsible for contacting the DC Water Construction Inspection Section at 202-787-4024 at least 90 days prior to construction to allow adequate time to initiate standard lead service replacement protocol. Lateral replacement includes the full length of pipe in public space.
4. **Owner Responsibility:** The Owner is responsible for all work and costs associated with excavation, installation, and restoration of public space to perform a water/sewer connection/abandonment. Once the Contractor has obtained a Public Space Permit he/she must then contact DC Water prior to performing the excavation to install/inspect the utility work. The Owner shall be held responsible for all damages to existing structures and utilities caused by construction activity.
5. **DC Water Responsibility:** DC Water is only responsible for installation of small water service taps (2" diameter and less) to the public main, small water service tap removals from the public main, furnishing & installing the meter in public space, and inspection of work performed on the public systems.
6. **Miss Utility:** Contact Miss Utility at 800-257-7777 48 hours before any digging.
7. **Plan Set:** A set of signed & sealed and DC Water stamped Plans shall be kept at all times at the job site on which all changes or variations in the work, including all existing utilities, are to be recorded and/or corrected daily.
8. **Abandonments:** The Owner must physically disconnect existing water, sewer, and storm laterals that are to be abandoned at their connection to the public main.
9. **Unmetered Water:** There shall be no unmetered connections to the City's water system, including connections bypassing meters for testing on-site plumbing or for obtaining construction water.
10. **Pressure Testing Against Valves:** Pressure testing against valves will not be allowed.
11. **Water Meter Installation:** To schedule the installation of a domestic water meter contact Permit Operations at 202-646-8600. DC Water will furnish and install the meter after the connection to the main has been made and the meter pit/vault has been installed.

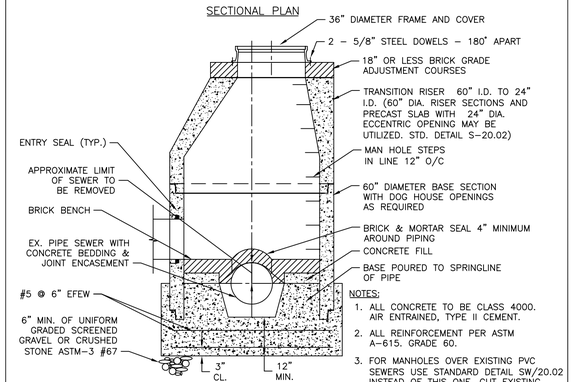
12. **Cross Contamination Control:** ASSE 1048 certified backflow prevention assemblies are required on all fire services and are to be located inside the building (unless an external location is necessary or required by DC Water) where it is supplied, owned, operated, and maintained by the Owner. DC Water does not furnish nor install fire double check detector fire protection backflow prevention assemblies.
13. **Utility Service Disruptions:** Phase all utility work to maintain utility services to the surrounding area during all phases of construction. Limit required utility shut-downs in number and duration. Coordinate these shut downs with DC Water Construction Inspection staff.
14. **Water Valve Operation:** The Contractor is required to coordinate with DC Water for all necessary water main shut downs with adequate advanced notice. Only DC Water employees may shut down a public water main. A certified plumber is only authorized to turn off valves inside meter pits.
15. **Water Gate Valve Location:** Locate gate valves for domestic and fire services as close to the public water main tee as possible. However, if necessary adjustments are required due to conflicts, coordinate with a DC Water inspector.
16. **Material:** The Contractor is responsible for submitting shop cuts to the appropriate DC Water office for approval or obtaining a DC Water approval stamp for all work in public space in advance of installation. Only approved materials may be used.
17. **Temporary Conditions Minimum Cover:** A nominal four feet of cover is required for all water mains at final grade. Cover of less than four feet requires DC Water approval.
18. **As-Built:** Developers, contractors and/or plumbers must submit final construction as-built information to the appropriate DC Water inspector(s) for review and approval, upon completion of installation of new services or abandonment of existing services. When the final as-built is approved all deposits will be returned to the applicant. See DC Water as-built requirements for additional information.
19. **Conflicts:** The Contractor shall field verify the location of existing underground utilities prior to installation of proposed utilities. A minimum of one foot vertical and five feet horizontal clearance shall be maintained from any utilities and public water and sewer mains.
20. **Fire Hydrant Use:** The use of a fire hydrant as a water source is prohibited unless a permit has been obtained from DC Water for use of a specific hydrant(s). Daily or extended use permits can be obtained from the DC Water Permit Operations Department 202-646-8600.
21. **Fire Hydrant Status:** The Contractor shall notify FEMS at 202-277-1889, prior to taking any fire hydrant out of service or rendering any hydrant inaccessible for any reason. FEMS is also to be provided with the location of any new installation of private fire hydrants.
22. **DC Water Safety Office:** The DC Water Safety Office can be contacted at 202-787-4350.
23. **Sewer Backwater Prevention**: The plumbing system must be incompliance with Section 715 of the 2006 International Plumbing Code which states a backwater is valve is required for all plumbing fixtures below the elevation of the manhole cover of the next upstream manhole in the public sewer.

$FILE$
$DATE$

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY — S-20.12 1 OF 1



SECTIONAL PLAN

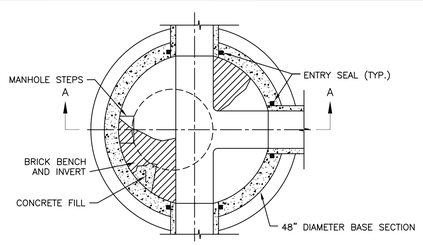


SECTION A – A

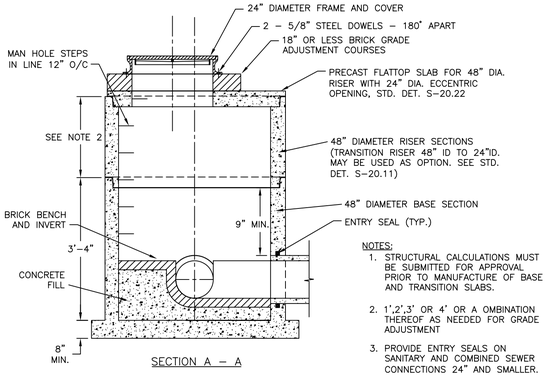
NOTES:
1. ALL CONCRETE TO BE CLASS 4000. AIR ENTRAINED, TYPE II CEMENT.
2. ALL REINFORCEMENT PER ASTM A-615. GRADE 60.
3. FOR MANHOLES OVER EXISTING PVC SEWERS USE STANDARD DETAIL SW/20.02 INSTEAD OF THIS ONE. CUT EXISTING PVC SEWER AND RECONNECT ON EITHER SIDE OF MANHOLE

APPROVED DATE: June 20, 2003 — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBS/BKJV CHECKED BY: W.DARROW	STANDARD DETAIL PRECAST CONCRETE MANHOLE OVER EXISTING 24" THRU 30" DIAMETER SEWERS WITH CAST IN PLACE CONCRETE BASE

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY — S-20.01 1 OF 1



SECTIONAL PLAN

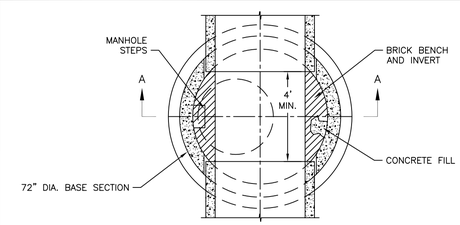


SECTION A – A

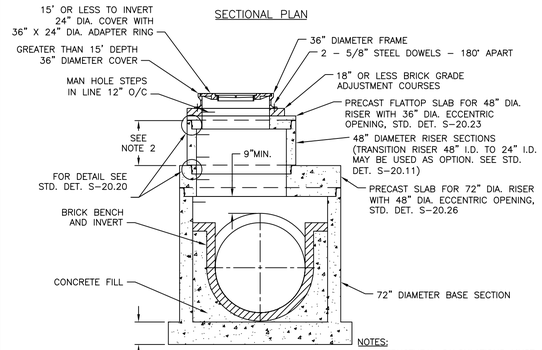
NOTES:
1. STRUCTURAL CALCULATIONS MUST BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OF BASE AND TRANSITION SLABS.
2. 1',2',3' OR 4' OR A OMBINATION THEREOF AS NEEDED FOR GRADE ADJUSTMENT
3. PROVIDE ENTRY SEALS ON SANITARY AND COMBINED SEWER CONNECTIONS 24" AND SMALLER.

APPROVED DATE: June 20, 2003 — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBS/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-20.03 1 OF 1



SECTIONAL PLAN



SECTION A – A

NOTES:
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APPROVED DATE: June 20, 2003 — DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES	REVISION NO.: 0 DATE: 6/20/03 PREPARED BY: OBS/BKJV CHECKED BY: W.DARROW	STANDARD DETAIL PRECAST CONCRETE MANHOLE FOR NEW 33" THRU 48" DIAMETER SEWERS (72" DIAMETER PRECAST BASE)

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

designgreen
Ecological · Civil · Science · Engineering
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: AS NOTED | DD-10

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

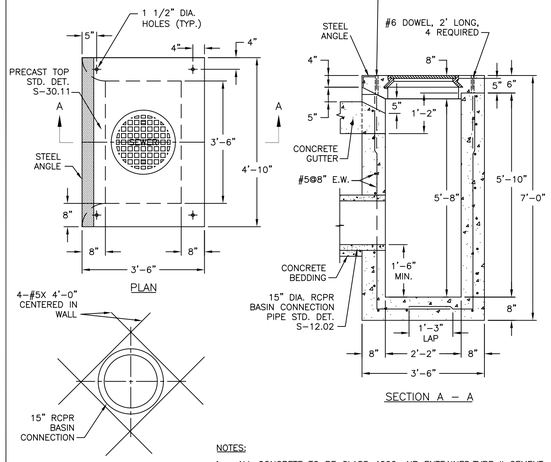
PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DRAINAGE DETAIL SHEET

DIVISION CHIEF
DATE
FILE
SHEET 46 OF 75

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		47	75

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY — S-30.01 — 1 OF 1

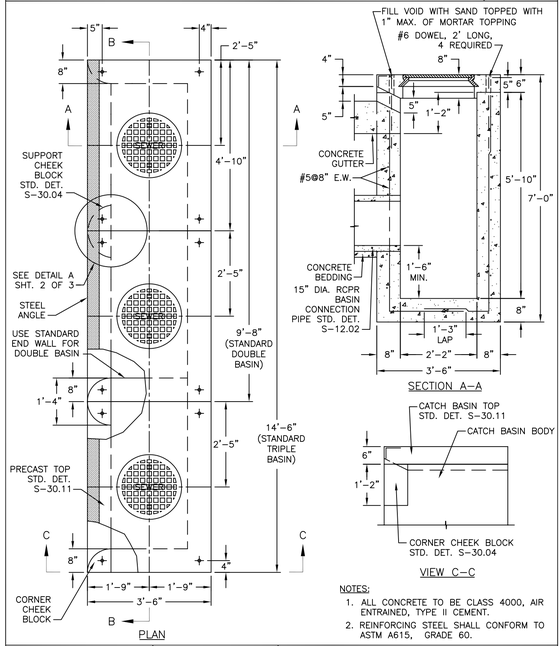


NOTES:

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 — 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

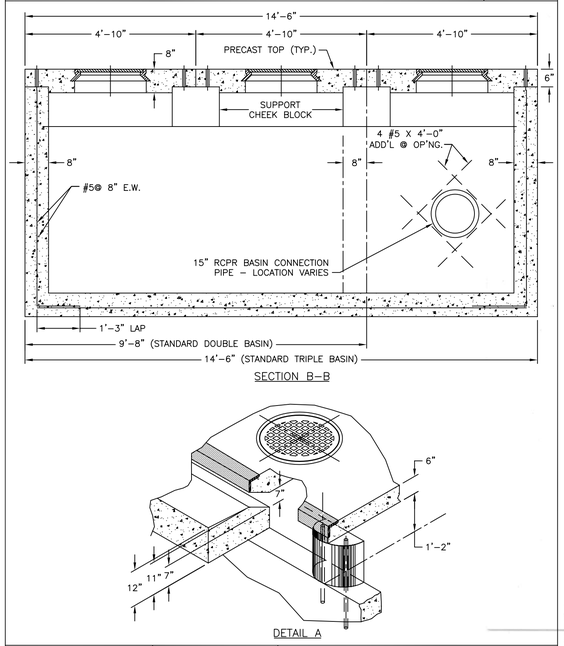


NOTES:

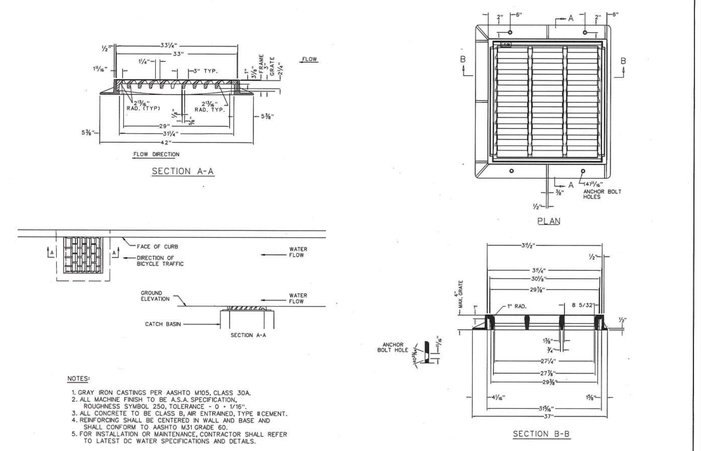
1. ALL CONCRETE TO BE CLASS 4000, AIR ENTRAINED, TYPE II CEMENT.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.

APPROVED DATE: June 20, 2003 — 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 — 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

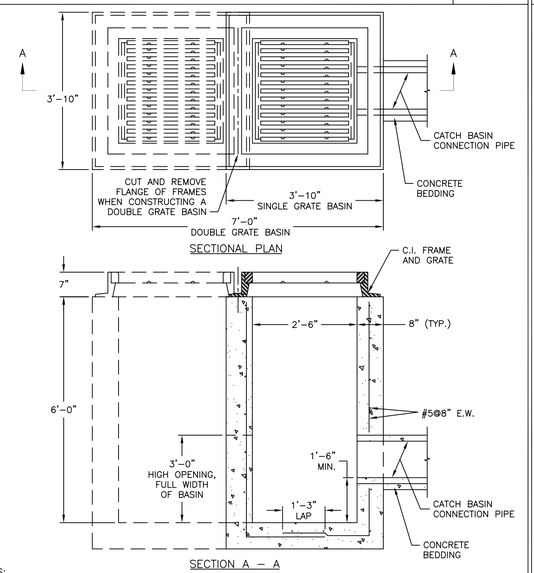


NOTES:

1. GRAY IRON CASTINGS PER AASHTO M105, 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 B, AIR ENTRAINED, TYPE II CEMENT.
4. REINFORCING SHALL BE CENTERED IN WALL AND BASE AND SHALL CONFORM TO AASHTO M31 GRADE 60.
5. FOR INSTALLATION OR MAINTENANCE, CONTRACTOR SHALL REFER TO LATEST DC WATER SPECIFICATIONS AND DETAILS.

ISSUED: 8/2015 REVISION / APPROVAL	RECOMMENDED: PROJECT MANAGER APPROVED: Mohammed Khalid, CHIEF ENGINEER	CURVE VANE GRATE WITH FRAME FOR SINGLE TYPE S INLET (FOR BICYCLE LANES) — DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION — DWG. NO. 310.03

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

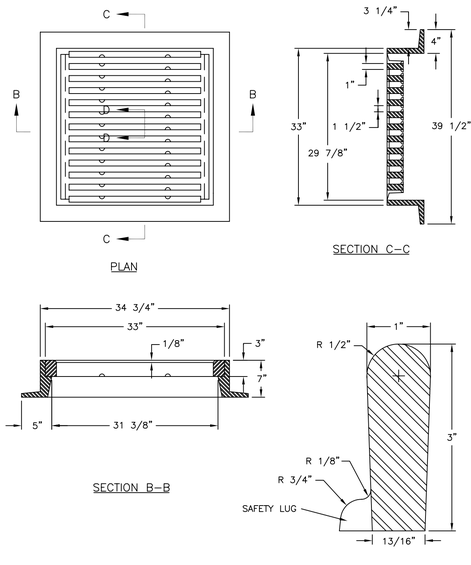


NOTES:

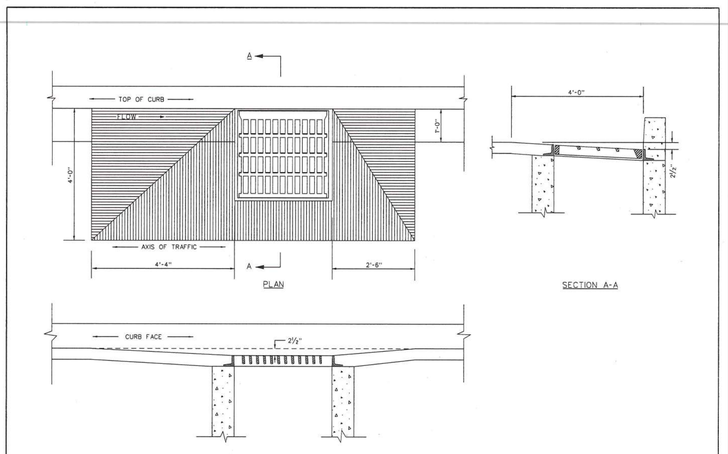
1. GRAY IRON CASTINGS PER ASTM A-48, CLASS 30A.
2. ALL MACHINE FINISH TO BE A.S.A. SPECIFICATION, ROUGHNESS SYMBOL 250, TOLERANCE – 0 + 1/16".
3. ALL CONCRETE TO BE CLASS 4000, AIR ENTRAINED, TYPE II CEMENT.
4. REINFORCING SHALL BE CENTERED IN WALL AND BASE AND SHALL CONFORM TO ASTM A615 GRADE 60.

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



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



ISSUED: 8/2015 REVISION / APPROVAL	RECOMMENDED: PROJECT MANAGER APPROVED: Mohammed Khalid, CHIEF ENGINEER	METHOD OF DEPRESSING PAVEMENT (FOR GUTTER OPENING INLET) — DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION — DWG. NO. 310.05

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

DATE: OCTOBER 2022	SCALE: AS NOTED	DD-11

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

DRAINAGE DETAIL SHEET

PROJECT ENG.	BMW
DESIGNED BY	BMW
CHECKED BY	RB
DRAWN BY	BMW
PROJECT MGR.	RB
DIVISION CHIEF	
DATE	
FILE	
SHEET	47 OF 65

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NO.	DESCRIPTION	NAME	DATE

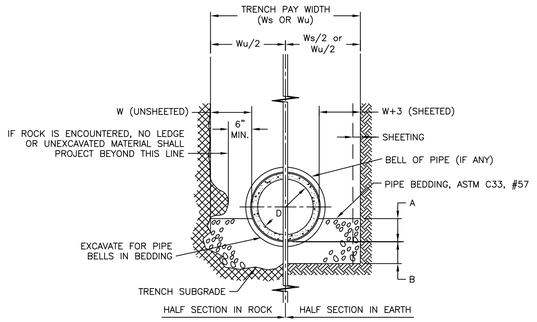
REVISIONS

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		48	75

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-12.01
1 OF 2



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

CONCRETE PIPE SEWER
TRENCH LAYING CONDITION

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY

S-12.01
2 OF 2

PIPE DIAMETER	PIPE BEDDING DIMENSION				TRENCH PAY WIDTH	
D	W	A	B		UNSHEETED Wu	SHEETED Ws
			IN SOIL	IN ROCK		
12"	12"	5"	3"	6"	3' – 4"	3' – 10"
15"	12"	5"	3"	6"	3' – 7"	4' – 1"
18"	12"	6"	3"	6"	3' – 11"	4' – 5"
21"	12"	7"	3"	6"	4' – 3"	4' – 9"
24"	12"	8"	3"	6"	4' – 6"	5' – 0"
27"	18"	8"	3"	6"	5' – 9"	6' – 3"
30"	18"	9"	4"	9"	6' – 1"	6' – 7"
33"	18"	10"	4"	9"	6' – 5"	6' – 11"
36"	18"	10"	4"	9"	6' – 8"	7' – 2"
42"	18"	13"	4"	9"	7' – 3"	7' – 9"
48"	24"	15"	4"	9"	8' – 10"	9' – 4"
54"	24"	16"	4"	9"	9' – 5"	9' – 11"
60"	24"	18"	4"	9"	10' – 0"	10' – 6"
66"	24"	20"	6"	12"	10' – 7"	11' – 1"
72"	24"	22"	6"	12"	11' – 2"	11' – 8"
78"	24"	23"	6"	12"	11' – 9"	12' – 3"
84"	24"	25"	6"	12"	12' – 4"	12' – 10"
90"	24"	27"	6"	12"	12' – 11"	13' – 5"
96"	24"	28"	6"	12"	13' – 6"	14' – 0"
102"	24"	30"	6"	12"	14' – 1"	14' – 7"
108"	24"	32"	6"	12"	14' – 8"	15' – 2"

NOTES:

1. IF NECESSARY TO EXCEED W BELOW A HORIZONTAL PLANE 1'–0" ABOVE TOP OF PIPE, SEE SPECIFICATION SECTION 02220.
2. SHEETING, IF USED, SHALL BE REMOVED IN CONJUNCTION WITH THE BACKFILLING OPERATION UNLESS OTHERWISE SPECIFIED OR SHOWN ON DRAWING. HOWEVER, IF APPROVED IN WRITING, SHEETING MAY BE CUT–OFF AND LEFT IN PLACE BELOW A LINE 1'–0" ABOVE THE TOP OF THE PIPE OR AS DIRECTED BY THE ENGINEER.

APPROVED DATE: June 20, 2003
DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES

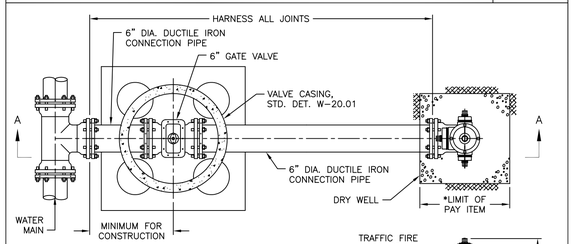
REVISION NO.: 0
DATE: 6/20/03
PREPARED BY: OBG/BKJV
CHECKED BY: W.DARROW

STANDARD DETAIL

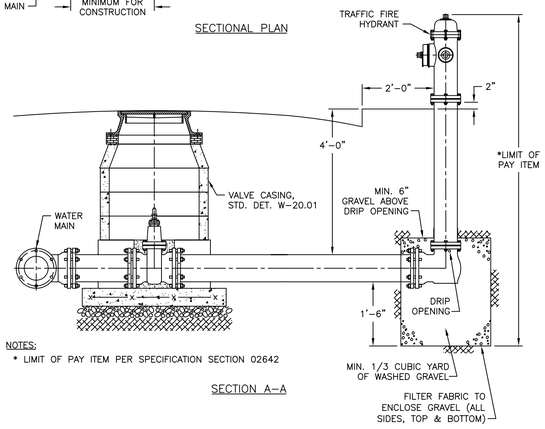
CONCRETE PIPE SEWER
TRENCH LAYING CONDITION

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
DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES

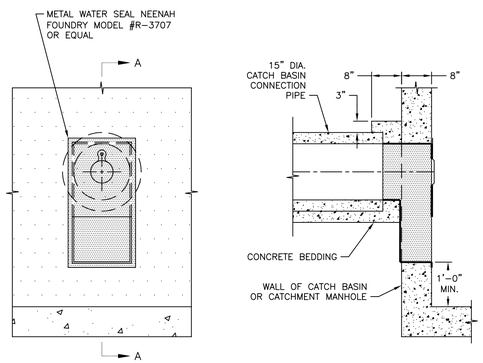
REVISION NO.: 0
DATE: 6/20/03
PREPARED BY: OBG/BKJV
CHECKED BY: W.DARROW

STANDARD DETAIL

TRAFFIC FIRE HYDRANT INSTALLATION

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.

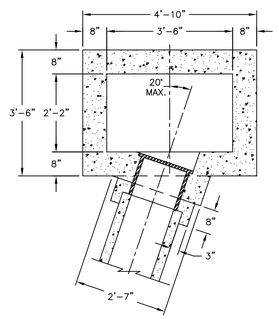
APPROVED DATE: June 20, 2003
DIRECTOR, DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES

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

30% DESIGN SUBMITTAL
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: AS NOTED | DD-12

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL
DESIGN

DRAINAGE & UTILITY
DETAIL SHEET

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DIVISION CHIEF
DATE
FILE
SHEET 48 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		49	75

STORM DRAINAGE COMPUTATIONS

Structure		Flow to Inlet						Cumulative			Pipe Information							PROFILE			TOP
From #	To #	Area ac	Runoff C	CA	Tc MIN	Intensity I	INC. CFS	Total Area (Ac)	Total CA	TOTAL CFS	DIA. IN	SLOPE %	LENGTH FT	Material	n	Q(max) CFS	V(act) FPS	UPPER INVERT	LOWER INVERT	DROP FT	
D210	D200	0.00	--	0.00	5.00	7.16	0.00	0.00	0.00	0.00	15	2.00%	9	RCP CLIII	0.015	7.92	0.00	278.66	278.48	1.50	284.00
D200	D108	0.00	--	0.00	5.00	7.16	0.00	0.00	0.00	0.00	15	2.58%	131	RCP CLIII	0.015	8.99	0.00	276.98	273.60	0.00	282.69
D110	D108	0.96	0.69	0.66	5.00	7.16	4.73	0.96	0.66	4.73	18	2.40%	10	RCP CLIII	0.015	14.10	7.25	275.24	275.00	1.40	280.09
D108	D102	0.00	--	0.00	5.00	7.16	0.00	0.96	0.66	4.73	18	0.33%	54	RCP CLIII	0.015	5.26	2.91	273.60	273.42	0.10	279.70
D106	D102	0.07	0.90	0.06	5.00	7.16	0.45	0.07	0.06	0.45	18	6.17%	12	RCP CLIII	0.015	22.61	3.20	275.21	274.47	1.15	279.66
D374	D370	0.36	0.62	0.22	5.00	7.16	1.59	0.36	0.22	1.59	15	2.00%	2	RCP CLIII	0.015	7.92	5.53	279.30	279.26	1.50	286.00
D372	D370	0.28	0.58	0.16	5.00	7.16	1.16	0.28	0.16	1.16	15	2.00%	26	RCP CLIII	0.015	7.92	5.14	279.78	279.26	1.50	286.41
D370	D360	0.00	--	0.00	5.00	7.16	0.00	0.64	0.38	2.74	18	2.00%	70	RCP CLIII	0.015	12.87	6.31	277.76	276.36	0.10	285.58
D364	D360	0.24	0.67	0.16	5.00	7.16	1.14	0.24	0.16	1.14	15	2.00%	2	RCP CLIII	0.015	7.92	5.12	277.80	277.76	1.50	283.05
D362	D360	0.10	0.74	0.08	5.00	7.16	0.54	0.10	0.08	0.54	15	2.00%	19	RCP CLIII	0.015	7.92	3.76	278.14	277.76	1.50	283.00
D360	D350	0.00	--	0.00	5.00	7.16	0.00	0.97	0.62	4.42	18	2.00%	38	RCP CLIII	0.015	12.87	6.63	276.26	275.50	8.36	282.63
D354	D350	0.68	0.68	0.46	5.00	7.16	3.32	0.68	0.46	3.32	15	2.00%	1	RCP CLIII	0.015	7.92	5.92	278.06	278.04	10.90	282.12
D352	D350	0.03	0.70	0.02	5.00	7.16	0.15	0.03	0.02	0.15	15	2.00%	33	RCP CLIII	0.015	7.92	1.51	276.00	275.34	8.20	282.55
D350	D340	0.00	--	0.00	5.00	7.16	0.00	1.68	1.10	7.89	36	0.37%	143	RCP CLIV	0.013	40.57	4.89	267.14	266.61	0.00	281.84
D342	D340	0.42	0.68	0.29	5.00	7.16	2.05	0.42	0.29	2.05	15	2.00%	10	RCP CLIII	0.015	7.92	5.74	270.21	270.01	3.40	277.33
D340	D330	0.00	--	0.00	5.00	7.16	0.00	2.10	1.39	9.94	36	0.37%	157	RCP CLIII	0.013	40.57	5.07	266.61	266.03	0.00	277.66
D332	D330	0.32	0.81	0.26	5.00	7.16	1.84	0.32	0.26	1.84	15	3.67%	3	RCP CLIII	0.015	10.72	7.25	270.24	270.13	4.10	274.02
D330	D310	0.03	0.84	0.03	5.00	7.16	0.18	2.45	1.67	11.96	36	2.20%	25	RCP CLIII	0.013	98.93	10.51	266.03	265.48	0.05	273.93
D322	D320	0.07	0.86	0.06	5.00	7.16	0.44	0.07	0.06	0.44	15	2.00%	5	RCP CLIII	0.015	7.92	3.37	269.10	269.00	1.44	274.47
D320	D310	0.00	--	0.00	5.00	7.16	0.00	0.07	0.06	0.44	12	2.96%	23	RCP CLIII	0.015	5.31	4.36	267.56	266.88	1.45	274.56
D310	D302	0.00	--	0.00	5.00	7.16	0.00	2.52	1.73	12.40	36	0.98%	65	RCP CLIII	0.013	66.18	7.92	265.43	264.79	0.06	274.48
D306	D302	0.30	0.66	0.20	5.00	7.16	1.44	0.30	0.20	1.44	15	2.00%	29	RCP CLIII	0.015	7.92	5.43	269.08	268.50	3.77	274.93
D304	D302	0.07	0.73	0.05	5.00	7.16	0.38	0.07	0.05	0.38	15	2.00%	18	RCP CLIII	0.015	7.92	3.07	268.86	268.50	3.77	274.71
D302	D300	0.00	--	0.00	5.00	7.16	0.00	2.90	1.99	14.22	36	########	3	RCP CLIV	0.013	6265.51	29.89	264.73	0.00	--	277.00
D512	D510	0.03	0.84	0.03	5.00	7.16	0.20	0.03	0.03	0.20	15	2.00%	3	RCP CL	0.015	7.92	1.98	271.59	271.53	27.83	251.46
D510	D505	0.44	0.75	0.33	5.00	7.16	2.39	0.48	0.36	2.60	24	2.00%	30	RCP CL	0.015	27.73	6.01	243.70	243.10	243.10	274.11
D752	D750	0.15	0.59	0.09	5.00	7.16	0.62	0.15	0.09	0.62	15	2.00%	30	RCP CLIII	0.015	7.92	4.05	246.46	245.86	--	251.46
D732	D730	0.36	0.68	0.24	5.00	7.16	1.74	0.36	0.24	1.74	15	2.00%	11	RCP CLIII	0.015	7.92	5.62	237.55	237.33	--	242.55
D722	D720	0.16	0.69	0.11	5.00	7.16	0.77	0.16	0.11	0.77	15	2.00%	4	RCP CLIII	0.015	7.92	4.46	233.00	232.92	--	238.00

30% DESIGN SUBMITTAL
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: AS NOTED | DD-20

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

DRAINAGE COMPUTATIONS

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DIVISION CHIEF
DATE
FILE
SHEET 49 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		50	75

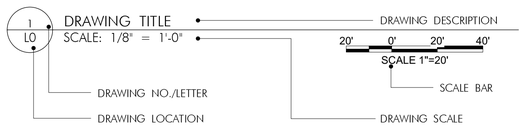
DRILL HOLES

DRILL HOLES

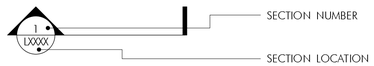
DRILL HOLES

SYMBOLS

DRAWING TITLE

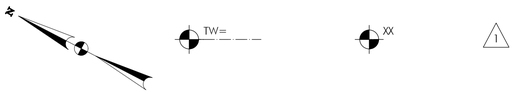


SECTION



DETAIL KEY

NORTH ARROW | ELEVATION DATUM | PLAN DATUM | REVISION



LEGEND

- PROPERTY LINE
- CENTER LINE
- MATCH LINE
- EXISTING FENCE
- PROPOSED FENCE
- PROPOSED CONTOUR (XXX)
- ℄ CENTER LINE
- ℙ PROPERTY LINE
- Ø DIAMETER

SOIL LEGEND

PLANTING SOIL, 3'-0" DEPTH

MATERIALS LEGEND

- PA1 PLANTED AREA
- P1 ASPHALT - MILLED & RESURFACED, ARTISTICALLY SURFACED
- P2 C.I.P. STANDARD CONC. SIDEWALK
- P3 ARTISTIC SURFACING
- F1 BICYCLE RACK
- W1 C.I.P. STANDARD CONC. CURB

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, COUNTY AND/OR LOCAL STATUTES, ORDINANCES, REGULATIONS, LAWS AND CODES. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO ENSURE SUCH COMPLIANCE AT NO ADDITIONAL COST TO THE OWNER. IF ANY INCONSISTENCIES ARE FOUND BETWEEN CODE REQUIREMENTS AND THE CONTENT OF THE CONTRACT DOCUMENTS (CD'S), THE CONTRACTOR WILL INFORM THE CONSTRUCTION MANAGEMENT TEAM (CMT) IMMEDIATELY AND STOP WORK UNTIL GIVEN APPROVAL TO PROCEED BY THE CMT.
2. THE CONTRACTOR SHALL FULLY EXAMINE AND BE FAMILIAR WITH THE CONDITIONS OF THE SITE AND THE DRAWINGS AND SPECIFICATIONS. SHOULD THE CONTRACTOR FIND, AFTER VISITING THE SITE OR DURING CONSTRUCTION, ANY DISCREPANCIES, OMISSIONS, AMBIGUITIES, OR CONFLICTS IN THE CDS OR BE IN DOUBT AS TO THEIR MEANING, THEY SHALL IMMEDIATELY BRING THESE ITEMS TO THE ATTENTION OF THE CMT AND SHALL NOT PROCEED WITH WORK UNTIL THESE DISCREPANCIES ARE RESOLVED AND WRITTEN APPROVAL IS GIVEN BY THE CMT. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
3. CONSULT ALL DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS PRIOR TO BEGINNING CONSTRUCTION. SHOULD THERE BE ANY DISCREPANCIES BETWEEN LANDSCAPE ARCHITECTURAL OR ENGINEERING DRAWINGS, THE CONTRACTOR IS TO CONTACT THE CONSTRUCTION MANAGEMENT TEAM TO REVIEW AND COORDINATE BEFORE PROCEEDING WITH WORK.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CMT AND OWNER.
5. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK. CONTACT THE LOCAL UTILITY AGENCY A MINIMUM OF 72 HOURS IN ADVANCE. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED FOR DAMAGE TO UTILITIES, PIPES AND STRUCTURES DUE TO THEIR WORK.
6. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING CONDITIONS TO REMAIN. CONTRACTOR SHALL PROMPTLY REPAIR ANY DAMAGE TO EXISTING SITE ELEMENTS SUCH AS PAVEMENT, DRIVEWAYS, AND OTHER ADJACENT FACILITIES CAUSED BY CONSTRUCTION OPERATIONS AT NO ADDITIONAL COST TO THE OWNER. REPAIRS TO EXISTING SITE ELEMENTS SHALL MATCH THE EXISTING IN CONSTRUCTION, MATERIAL AND FINISH, PER THE OWNER'S APPROVAL, AND SHALL BLEND WITH THE ADJACENT EXISTING SITE CONDITIONS AS SEAMLESSLY AS POSSIBLE.
7. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL WORK AND RELATED ACTIVITIES WITHIN THE PROPERTY LINE OR THE DESIGNATED LIMIT OF WORK. AT NO TIME IS ACCESS, STORAGE, OR MOVEMENT OF MATERIALS, MACHINERY, OR DEBRIS TO TAKE PLACE OUTSIDE OF THE PROJECT LIMIT OF WORK LINE OR PROPERTY LINES.
8. CONSTRUCTION ACCESS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF WAY. ANY STREETS, SIDEWALKS, ALLEYS, OR DRIVEWAYS DISTURBED DURING CONSTRUCTION MUST BE CLEARED OF DEBRIS, SWEPT, AND WASHED ON A DAILY BASIS DURING CONSTRUCTION. THE CONTRACTOR SHALL KEEP THE SITE CLEAN AND FREE OF TRASH AT ALL TIMES DURING CONSTRUCTION.
9. INSTALL TEMPORARY TREE PROTECTION AND TEMPORARY EROSION CONTROL MEASURES PRIOR TO ANY LAND DISTURBANCE AS REQUIRED BY LOCAL CODES AND AS SHOWN ON THE DRAWINGS. REFER TO THE CIVIL ENGINEER'S EROSION CONTROL DRAWINGS.
10. THE CONTRACTOR SHALL INSPECT ALL TREE PROTECTION AND EROSION CONTROL DEVICES AND CORRECT ANY DEFICIENCIES AT THE END OF EACH WORK DAY TO ENSURE THEIR PERFORMANCE. THE CONTRACTOR SHALL REMOVE SOIL TRAPPED BY EROSION CONTROL DEVICES AS REQUIRED TO PREVENT SOIL LEVEL FROM OVER-TOPPING THE DEVICE OR BULGING AT ANY POINT DURING CONSTRUCTION. SEE CIVIL ENGINEER'S DOCUMENTS.
11. ALL EXISTING TREES TO REMAIN SHALL BE FENCED AT THE DRIP LINE OF THEIR CANOPIES, OR PER PLANS IF PLANS INDICATE A LARGER TREE PROTECTION ZONE. DO NOT DRIVE VEHICLES, STOCKPILE SOIL OR CONSTRUCTION MATERIALS, OR PERFORM ANY CONSTRUCTION OPERATIONS WITHIN THE DRIP LINE, ROOT ZONE, OR PROTECTIVE FENCING OF EXISTING TREES. CONTRACTORS NOT FOLLOWING THESE PROTECTIVE RULES SHALL BE LIABLE FOR THE COST OF AN ARBORIST'S FEES AND ALL COSTS ASSOCIATED WITH TREATMENT AND/OR REPLACEMENT OF THE TREES. BEFORE FINAL GRADING AND PLANTING BEGINS, THE CMT WILL INSPECT TREE PROTECTION AREAS FOR COMPACTION AND MECHANICAL DAMAGE. IF THE CMT DETERMINES THAT EITHER OF THESE EXISTS, THE CONTRACTOR WILL REMEDY AT HIS EXPENSE. MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO EVALUATION BY A LICENSED ARBORIST, AIRSPADING, BIOPLEX TREATMENT, CABLING, ROOT PRUNING AND PRUNING OF CANOPY/LIMBS.
12. THE CMT SHALL APPROVE ALL TRENCHING OR OTHER DISTURBANCE REQUIRED WITHIN THE ROOT ZONES OF TREES PRIOR TO EXECUTION. THE CONTRACTOR IS RESPONSIBLE FOR CONSULTING THE ARBORIST PRIOR TO MAJOR EXCAVATION, AS DIRECTED BY THE CMT. APPROVED TRENCHING SHALL BE PERFORMED USING A VERMEER TRENCHING MACHINE, VIBRATORY PLOW OR EQUIVALENT.
13. ROOT PRUNING SHALL BE COMPLETED PRIOR TO BASE OR SUBGRADE PREPARATION AND PRIOR TO ANY EXCAVATION ADJACENT TO ANY EXISTING TREE. TREE ROOTS SHALL BE ROOT PRUNED TO AVOID TEARING AND SHREDDING BY GRADING EQUIPMENT. ROOT PRUNING SHALL BE TO A DEPTH OF 18". THE CONTRACTOR SHALL TRENCH AROUND THE TREE BEYOND THE EDGE OF THE TREE PROTECTION AREA AND THEN CLEAR THE SOIL BY HAND TO THE EDGE OF THE TREE PROTECTION AREA AND HAND-PRUNE THE ROOTS. ROOTS SHALL BE CUT CLEANLY, AS FAR FROM THE TRUNK OF THE TREE AS POSSIBLE.
14. EXCAVATION IN AN AREA WHERE ROOTS ARE PRESENT SHALL NOT CAUSE THE TEARING OR RIPPING OF TREE ROOTS. ROOTS MUST BE CLEANLY SEVERED PRIOR TO CONTINUING WITH EXCAVATION, OR TUNNELED AROUND TO PREVENT DAMAGE TO THE ROOT.
15. AT SITES WHERE ROOT PRUNING OR EXCAVATION HAS TAKEN PLACE NEAR TREES TO REMAIN, AND MANY LIVING ROOTS REMAIN EXPOSED TO THE AIR, THE CONTRACTOR SHALL COVER THE EXPOSED ROOTS WITH SAND, SOIL, OR MOIST BURLAP WITHIN 2 HOURS. ROOT ENDS SHALL BE COVERED WITH SOIL OR BURLAP AND KEPT MOIST UNTIL THE FINAL BACKFILL OR GRADE IS ESTABLISHED.
16. ALL TREE PRUNING AND REMOVAL PERFORMED SHALL BE EXECUTED UNDER THE SUPERVISION OF A CERTIFIED ARBORIST. PRUNING SHALL BE PERFORMED TO THE STANDARDS OF THE INTERNATIONAL SOCIETY OF ARBORISTS PRUNING GUIDELINES, AND TO ANSI A-300.
17. THE CONTRACTOR SHALL PROVIDE MOCK-UPS IN THE FIELD OF PROPOSED SITE FEATURES, THAT ARE SO DESIGNATED IN THE DOCUMENTS, FOR APPROVAL BY OWNER AND CMT PRIOR TO CONSTRUCTION. ALL MOCK-UPS SHALL BE PRESERVED TO BE USED FOR REFERENCE DURING CONSTRUCTION. DO NOT REMOVE MOCK-UPS UNTIL CONSTRUCTION IS COMPLETE.
18. SUBSTITUTIONS IN LANDSCAPE PRODUCTS AND MATERIALS ARE NOT PERMITTED WITHOUT PRIOR APPROVAL BY THE CMT.
19. THE CONTRACTOR, OR THEIR REPRESENTATIVE, SHALL BE ON SITE AT THE TIME OF ALL MATERIALS DELIVERIES. IF THEY ARE NOT AVAILABLE TO ACCEPT THE DELIVERY, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY RESULTING LOSSES OR DAMAGE.
20. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION PRIOR TO COMMENCING WORK.
21. THE CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED CONSTRUCTION INSPECTIONS.
22. THE CONTRACTOR IS RESPONSIBLE FOR LICENSING, BONDING, AND INSURANCE AS REQUIRED BY APPLICABLE REGULATORY AGENCIES.
23. THE CONTRACTOR SHALL OBTAIN THE OWNER'S APPROVAL FOR TIMES OF DAY DURING WHICH CONSTRUCTION OPERATIONS MAY OCCUR. ALL CONSTRUCTION OPERATIONS SHALL OCCUR WITHIN TIMES SPECIFIED BY LOCAL ORDINANCES.
24. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THEIR WORK WITH ALL OTHER TRADES ON THE SITE.
25. IT IS THE CONTRACTOR'S RESPONSIBILITY TO GROUND AND BOND ALL METAL OBJECTS IN THE LANDSCAPE, AS REQUIRED BY CODE.
26. UPON COMPLETION OF THE PROJECT, ALL EXCESS SOIL, TEMPORARY FENCING, CONSTRUCTION SIGNS, TAGS, EROSION CONTROL MEASURES, STABILIZATION MATERIALS, AND OTHER DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY. ALL PAVED AREAS, WALLS, ETC. SHALL BE THOROUGHLY WASHED AND CLEANED.
27. REFER TO INDIVIDUAL DRAWINGS FOR FURTHER NOTES.
28. HORIZONTAL CLEARANCE IS 3' MIN FOR TREES FROM OUTER EDGE OF TREE AT BREAST HEIGHT TO OUTER EDGE OF WATER UTILITY AS PER DC WATER GREEN INFRASTRUCTURE UTILITY PROTECTION GUIDELINES
29. EXCAVATION FOR STRUCTURAL SOIL IN AREAS WITH EXISTING UTILITIES IS TO BE DONE USING HAND DIGGING METHODS ONLY.
30. SEND ALL REMOVED BIKE RACKS TO THE DDOT WAREHOUSE. COORDINATE WITH GREG MATLESKY AT GREG.MATLESKY@DC.GOV

DRAWING INDEX

SHEET NUMBER	SHEET NAME	CURRENT REVISION DATE	DESCRIPTION
L0	GENERAL NOTES	10/3/22	30% SUBMITTAL
L1-1	MATERIAL SCHEDULE & NOTES	10/3/22	30% SUBMITTAL
L1-2	LAYOUT & MATERIALS PLAN	10/3/22	30% SUBMITTAL
L1-3	LAYOUT & MATERIALS PLAN	10/3/22	30% SUBMITTAL
L2-1	PLANTING NOTES	10/3/22	30% SUBMITTAL
L2-2	PLANTING PLAN	10/3/22	30% SUBMITTAL
L2-3	PLANTING PLAN	10/3/22	30% SUBMITTAL
L3-2	SOILS PLAN	10/3/22	30% SUBMITTAL
L3-3	SOILS PLAN	10/3/22	30% SUBMITTAL

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

MKSK
714 7th Street SE
Washington, DC 20003
202.543.6550

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: | L0

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

LANDSCAPE NOTES

DIVISION CHIEF
DATE
FILE

SHEET 50 OF 75

$FILES
$DATES

DRILL HOLES

DRILL HOLES

DRILL HOLES

$FILES
$DATES

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		51	75

LAYOUT NOTES

1. DO NOT SCALE DRAWINGS. ALL WRITTEN DIMENSIONS SUPERSEDE ALL SCALED DISTANCES AND DIMENSIONS. ALL LINES AND DIMENSIONS ARE PARALLEL AND PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED. IF DIMENSIONS OR ANY NECESSARY INFORMATION IS UNCLEAR OR MISSING, OR IF THE CONTRACTOR FINDS ANY DISCREPANCIES, CONTACT THE LA FOR CLARIFICATION.
2. ALL DIMENSIONS ARE TO FACE OF TREAD, FACE OF EDGING, FACE OF CURB AND FACE OF WALLS, ETC., UNLESS OTHERWISE NOTED. ALL DIMENSIONS TO FACES OF BUILDINGS ARE TO THE FACE OF FINISHED WALL SURFACE WHERE THE WALL MEETS GRADE, UNLESS OTHERWISE NOTED.
3. ALL HORIZONTAL DIMENSIONS OF PAVERS, TREADS, COPING, CURBS, ETC. ARE TO CENTER OF JOINT, UNLESS OTHERWISE NOTED.
4. INSTALL 1/2" NON-ASPHALTIC EXPANSION JOINTS TO FULL DEPTH OF THE AS SHOWN IN THE DRAWINGS AND AT THE JUNCTION BETWEEN PAVING AND ANY EXISTING PAVING, STRUCTURE OR ANY VERTICAL SURFACE SUCH AS FACES OF WALLS, STEPS, CURBS, ETC. OR AS ADJUSTED BY CMT IN THE FIELD.
5. CONTROL JOINTS IN PAVING SHALL BE INSTALLED AS SHOWN IN THE DRAWINGS OR AS DIRECTED BY CMT IN THE FIELD.
6. NOTIFY CONSTRUCTION MANAGEMENT TEAM IMMEDIATELY IF CONFLICTS IN LAYOUT OF LANDSCAPE FEATURES ARISE DUE TO CHANGES TO OTHER CONSULTANTS DOCUMENTS. ANY ALTERATIONS TO THESE DRAWINGS PROPOSED IN THE FIELD FOR CONSTRUCTION SHALL BE PROMPTLY REPORTED TO THE CMT FOR APPROVAL PRIOR TO CONSTRUCTION.
7. REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

MATERIAL SCHEDULE

HARDSCAPE								
KEY	DESCRIPTION	PATTERN/APPLICATION	DIMENSIONS	MANUFACTURER	PRODUCT	COLOR	FINISH	REMARKS
P1	ASPHALT - MILLED & RESURFACED, ARTISTICALLY SURFACED	N/A	N/A	N/A	N/A	N/A	N/A	
P2	C.I.P. STANDARD CONC. SIDEWALK	3x3	N/A	N/A	N/A	N/A	BROOM FINISH	
P3	ARTISTIC SURFACING	TBD	N/A	N/A	N/A	N/A	N/A	
W1	C.I.P. STANDARD CONC. CURB	N/A	N/A	N/A	N/A	N/A	BROOM FINISH	
F1	BIKE RACK	N/A	N/A	TBD	TBD	BLACK	POWDER COATED	
PLANTING AREA								
Key	DESCRIPTION	REMARKS						
PA1	PLANTED AREA							

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

MKSK
714 7th Street SE
Washington, DC 20003
202.543.6550

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: | L1-1

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

MATERIALS SCHEDULE & NOTES

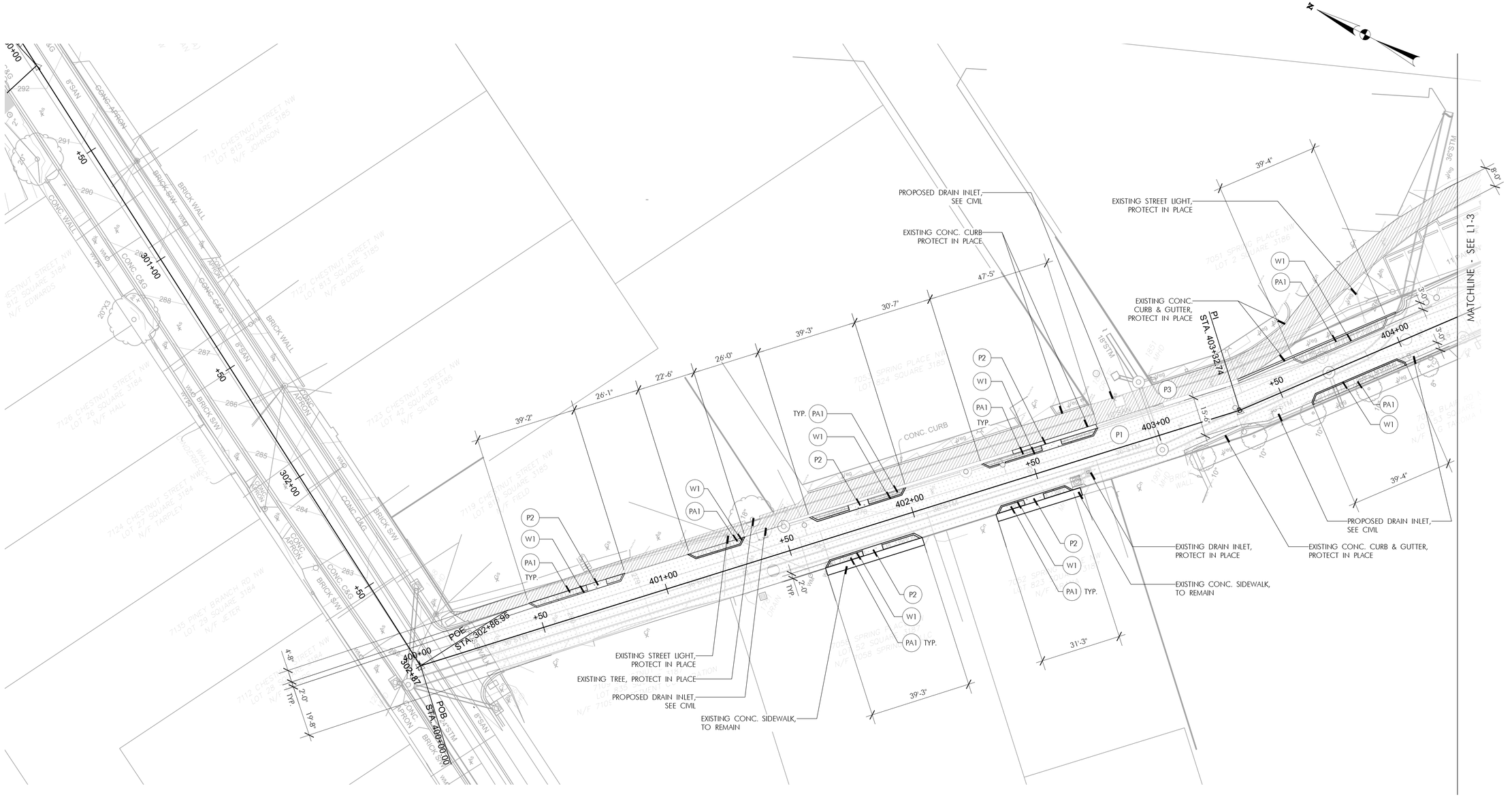
DIVISION CHIEF
DATE
FILE
SHEET 51 OF 65

DRILL HOLES

DRILL HOLES

DRILL HOLES

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		52	75



①　MATERIAL PLAN SPRING PLACE
Scale: 1" = 20'-0"

▨	PA1	PLANTED AREA
░	P1	ASPHALT - MILLED & RESURFACED, ARTISTICALLY SURFACED
░	P2	C.I.P. STANDARD CONC. SIDEWALK
▨	P3	ARTISTIC SURFACING
	F1	BICYCLE RACK
	W1	C.I.P. STANDARD CONC. CURB

$FILES
$DATES

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

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

MKSK
714 7th Street SE
Washington, DC 20003
202.543.6550

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022　SCALE: 1"=20'　L1-2

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

DIVISION CHIEF

MATERIALS PLAN

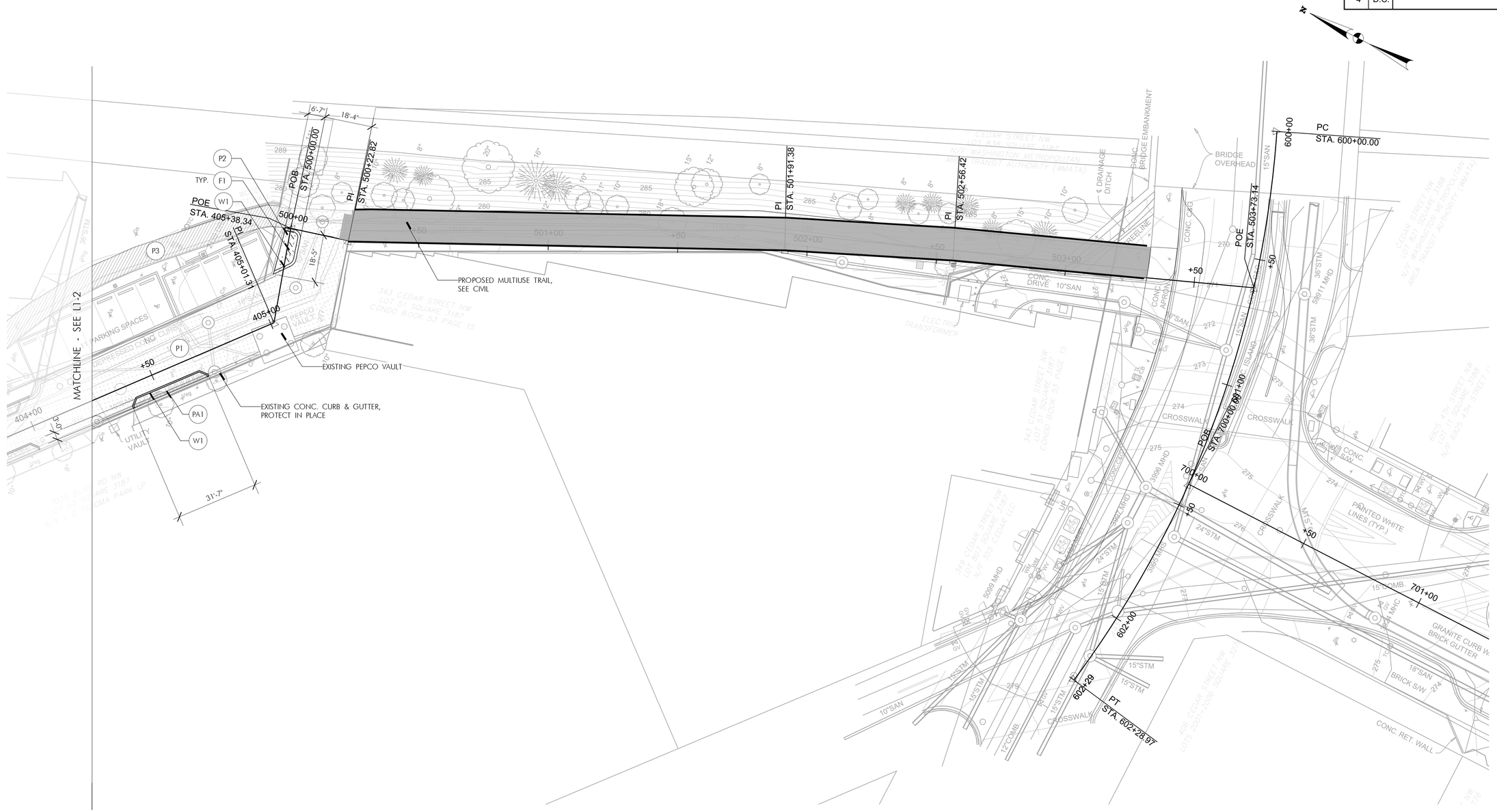
DATE
FILE
SHEET 52 OF 75

DRILL HOLES

DRILL HOLES

DRILL HOLES

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		53	75



1 MATERIAL PLAN SPRING PLACE
Scale: 1" = 20'-0"

	PA1	PLANTED AREA
	P1	ASPHALT - MILLED & RESURFACED, ARTISTICALLY SURFACED
	P2	C.I.P. STANDARD CONC. SIDEWALK
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20' 0' 20' 40'
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Washington, DC 20003
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022	SCALE: 1"=20'	L1-3

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

MATERIALS PLAN

DIVISION CHIEF
DATE
FILE
SHEET 53 OF 75

$FILE$
$DATE$

DRILL HOLES

DRILL HOLES

DRILL HOLES

$FILES
$DATES

PLANTING NOTES:

1. NUMBER OF PLANTS TO BE INSTALLED SHALL BE THE NUMBER SHOWN GRAPHICALLY ON THE DRAWINGS. IF THERE ARE CONFLICTS BETWEEN THE NUMBER OF PLANTS SHOWN ON THE DRAWINGS AND THE NUMBER SHOWN IN THE PLANT LIST, THE NUMBER OF PLANTS ON THE DRAWINGS SHALL BE INSTALLED. BRING ALL SUCH CONFLICTS TO THE ATTENTION OF THE CONSTRUCTION MANAGEMENT TEAM (CMT).

2. NO PLANTING SHALL BE DONE BEFORE ACCEPTANCE OF GRADING BY THE CMT.

3. NO EXISTING TREES OR SHRUBS SHALL BE REMOVED BY THE CONTRACTOR WITHOUT PRIOR APPROVAL OF THE CMT.

4. DO NOT PROCEED WITH PLANTING IF CONDITIONS ON THE SITE DIFFER FROM THOSE SHOWN IN THE SURVEY, PARTICULARLY IF OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE CMT. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.

5. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK. CONTACT THE LOCAL UTILITY AGENCY A MINIMUM OF 72 HOURS IN ADVANCE. CONTRACTOR SHALL STAKE ALIGNMENTS OF ALL UTILITY LINES FOR THE FIELD REVIEW BY THE CMT BEFORE PROCEEDING. STAKES SHALL BE LEFT IN PLACE DURING PLANTING, FOR REFERENCE. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED FOR DAMAGE TO UTILITIES, PIPES AND STRUCTURES DUE TO PLANTING WORK.

6. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE CMT. ALL TREE LOCATIONS WILL BE STAKED IN THE FIELD FOR REVIEW AND APPROVAL OF THE CMT BEFORE COMMENCING WITH TREE PLANTING. THE CONTRACTOR SHALL NOTIFY THE CMT FOR INSPECTION FOR EACH AREA BEFORE INSTALLATION. THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE CMT OF ANY UNDERGROUND OBSTACLES DISCOVERED DURING PLANTING THAT MAY AFFECT THE LOCATION OF TREES, AND WILL NOT PROCEED UNTIL THE FINAL TREE LOCATION IS APPROVED BY THE CMT.

7. ALL PLANT MATERIAL SHALL BE APPROVED BY THE CMT PRIOR TO OR AT THE TIME OF ITS ARRIVAL ON SITE. THE CONTRACTOR WILL NOTIFY THE CMT OF ALL PLANT DELIVERIES AT LEAST 48 HOURS IN ADVANCE. THE CMT WILL REJECT ANY PLANTS THAT ARE DAMAGED, DESICCATED, DISEASED, DO NOT HAVE FULL AND BALANCED FORM, DO NOT MEET THE SIZE OR SPECIES/CULTIVAR SPECIFIED IN THE DRAWINGS OR DO NOT MEET INDUSTRY STANDARDS OF QUALITY. REJECTED PLANTS WILL BE REPLACED BY THE CONTRACTOR IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER.

8. ALL PLANTS SHALL BE PLANTED PLUMB AND TRUE AND TO DDOT STANDARDS AND SPECIFICATIONS. ALL TREES WILL BE PLANTED WITH THE NORTH SIDE FACING NORTH, AS MARKED IN THE NURSERY, UNLESS OTHERWISE DIRECTED BY THE CMT. SEE PLANTING DETAILS AND DDOT SPECIFICATIONS FOR TREE, SHRUB, PERENNIAL, AND BULB PLANTING, INCLUDING STAKING METHODS, PLANT PIT DIMENSIONS AND PLANTING SOIL REQUIREMENTS.

9. ALL PLANT TYING MATERIAL AND MARKING TAPE SHALL BE REMOVED AT TIME OF PLANTING.

10. WATER ALL PLANTS IMMEDIATELY AFTER PLANTING PER THE SPECIFICATIONS. FLOOD PLANTS TWICE DURING THE FIRST 24 HOUR PERIOD OF PLANTING.

11. NO SUBSTITUTIONS OF PLANT SPECIES/CULTIVARS SHALL BE MADE WITHOUT THE PRIOR WRITTEN PERMISSION OF THE CMT. THE CMT RESERVES THE RIGHT TO MAKE SUBSTITUTIONS, ADDITIONS AND DELETIONS IN THE PLANTING SCOPE WHILE WORK IS IN PROGRESS. EQUITABLE ADJUSTMENTS TO THE CONTRACT PRICE, BASED ON THE COST OF COMPARABLE PLANTS IN THE CONTRACT, SHALL BE MADE SUBJECT TO DDOT APPROVAL.

12. ALL AREAS DISTURBED BY CONSTRUCTION OPERATIONS AND NOT OTHERWISE SPECIFIED SHALL BE SEEDED/SODDED PER THE PLANS AND SPECIFICATIONS.

13. ALL PLANT MATERIALS SHALL MEET OR EXCEED THE STANDARDS DESCRIBED IN ANSI-Z60.1, AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN HORTICULTURE INDUSTRY ASSOCIATION, WASHINGTON, DC, CURRENT EDITION.

14. UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIALS, EQUIPMENT AND DEBRIS RESULTING FROM THE WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT, AS APPROVED BY THE OWNER.

15. CONTRACTOR TO FOLLOW MAINTENANCE AND WARRANTY REQUIREMENTS AS OUTLINED IN ALL DDOT SPECIFICATIONS. SEE DDOT DESIGN AND ENGINEERING MANUAL.

16. ALL PLANTING SHALL BE PERFORMED IN ACCORDANCE WITH DDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES DATED 2013.

17. ALL PLANTING AND SITE WORK SHALL BE WITHIN THE RIGHT OF WAY UNLESS OTHERWISE INDICATED.

18. THE PLANTING SEASON FOR THIS PROJECT SHALL CONFORM TO THE PLANTING CALENDARS SHOWN ON THE DRAWINGS.

19. PLANTING PITS MAY BE DUG PRIOR TO PLANTING SEASON ONLY UNDER THE FOLLOWING CONDIDTIONS:

   A. THEY WILL NOT CAUSE EROSION OR JEOPARDIZE STABILIZATION AS DETERMINED BY THE ENGINEER.
   B. THEY ARE BACK FILLED WITH PREPARED TOPSOIL AND A STAKE, 1 X 2 INCH STAKE EXTENDING AT LEAST 24 INCHES ABOVE GROUND, IS PLACED IN EACH PIT IN AREAS TO BE MOWN.
   C. PITS THAT ARE DELETED OR RELOCATED WILL NOT BE INCLUDED FOR PAYMENT.

20. PLANTS SHALL BE SET IN THE PLANTING PIT, AT THE PROPER DEPTH EQUAL TO THAT OF THE ROOTBALL OR CONTAINER ON COMPACTED EARTH. SOIL MIX SHALL THEN BE FILLED AROUND THE ROOTS TO COMPLETELY BACKFILL THE PLANTING PIT. TAMP THE BACKFILL MATERIAL AND THROUGHLY WATER. AFTER SETTLEMENT OF THE SOIL, THE REMAINDER OF THE PIT SHALL BE FILLED WITH SOIL MIX, FERTILIZED, TAMPED, AND AGAIN WATERED, ALL WITHIN THE SAME DAY OF PLANTING. THE SAME PROCEDURE SHALL BE FOLLOWED IN PLANTING REPLACEMENTS.

21. DURING THE ESTABLISHMENT PERIOD THE CONTRACTOR SHALL WATER EACH PLANT WITH THE FOLLOWING MINIMUM QUANTITIES OF WATER FOR EACH WATERING UNLESS OTHERWISE DIRECTED BY THE CMT:

A.	DECIDUOUS TREES OVER 10' HT.	12 GALLONS PER PLANT
B.	DECIDUOUS TREES 10' HT. OR LESS	6 GALLONS PER PLANT
C.	EVERGREEN TREES	8 GALLONS PER PLANT
D.	SHRUBS OVER 18" HT.	2 GALLONS PER PLANT
E.	SHRUBS 18" HT. OR LESS	1 GALLON PER PLANT

22. THE CONTRACTOR SHALL WATER ALL LIVING PLANTS EVERY 4 WEEKS DURING THE PERIOD BETWEEN APRIL 1 AND MAY 31, EVERY 2 WEEKS DURING THE BERIOD BETWEEN JUNE 1 AND SEPTEMBER 30, AND EVERY 4 WEEKS DURING THE PERIOD BETWEEN OCTOBER 1 AND NOVEMBER 30. FOR CONTRACTOR BIDDING PURPOSES THIS ASSUMES A TOTAL OF 14 TIMES PER YEAR.

23. A REPRESENTATIVE OF DDOT SHALL BE GIVEN THE OPPORTUNITY TO INSPECT AND APPROVE ALL PLANT MATERIAL AT ITS SOURCE PRIOR TO DIGGING OR DELIVERY. IF THIS OPPORTUNITY IS WAIVED, A REPRESENTATIVE SAMPLE OF EACH SPECIES SHALL BE MADE AVALIABLE FOR APPROVAL AT THE PROJECT SITE.

24. THE MULCHING MATERIAL FOR THIS PROJECT SHALL BE SHREDDED HARDWOOD BARK MULCH. SEE DDOT STANDARD SPECIFICATION 823.04(C). FINISH OFF UNPLANTED AREAS IN LID FACILITIES WITH A 2-3" LAYER OF MULCH, BUT DO NOT PLACE AGAINST OR MOUND AROUND ROOT FLARE.

25. ON CENTER SPACING OF PLANT MATERIAL SHALL BE AS INDICATED IN THE PLANTING SCHEDULES SHOWN IN THE DRAWINGS UNLESS OTHERWISE DIRECTED BY THE CMT.

26. CONTRACTOR SHALL PROVIDE A THIRD PARTY ISA CERTIFIED ARBORIST DURING THE FOLLOWING THREE PROJECT PHASES. THE THIRD PARTY ISA CERTIFIED ARBORIST'S RESPONSIBILITIES SHALL INCLUDE THE FOLLOWING DURING THE RESPECTIVE PHASES:

   1. DEMO PHASE SHALL ENSURE PROPER TREE PROTECTION AND TREE REMOVAL MEASURES.
   2. TREE INSTALLATION PHASE SHALL ENSURE PROPER SITE PREPARATION AND PLANT MATERIAL INSTALLATION PER DRAWINGS AND SPECIFICATIONS.
   3. MAINTENANCE PHASE SHALL ENSURE PROPER WEED CONTROL AND IRRIGATION METHODS AND MEASURE PER DRAWINGS AND SPECIFICATIONS.

27. TREES ADJACENT TO THE SHARED USE PATH SHALL BE LIMBED UP TO 8' ABOVE THE FINISHED GRADE OF THE SHARED USE PATH.

28. CONTRACTOR IS RESPONSIBLE FOR A TWO YEAR WARRANTY FOR ALL PLANT MATERIAL PER THE DDOT STANDARD SPECIFICATIONS.

29. ALL EXISTING TREES TO REMAIN SHALL BE FENCED AT THE DRIP LINE OF THEIR CANOPIES, OR PER PLANS IF PLANS INDICATE A LARGER TREE PROTECTION ZONE. DO NOT DRIVE VEHICLES, STOCKPILE SOIL OR CONSTRUCTION MATERIALS, OR PERFORM ANY HEAVY CONSTRUCTION OPERATIONS WITHIN THE DRIP LINE, ROOT ZONE, OR PROTECTIVE FENCING OF EXISTING TREES. WHEN EXCAVATING OR INSTALLING PAVING WITHIN THE DRIP LINE NO HEAVY EQUIPMENT IS TO BE USED THAT WILL COMPACT TREE ROOTS. ALL WORK WITHIN THE DRIP LINE MUST BE PERFORMED BY HAND. CONTRACTORS NOT FOLLOWING THESE PROTECTIVE RULES SHALL BE LIABLE FOR THE COST OF AN ARBORIST'S FEES AND TREATMENT OF THE TREES AND/OR REPLACEMENT OF THE TREES AND ALL ASSOCIATED COSTS. BEFORE FINAL GRADING AND PLANTING BEGINS, THE ARBORIST WILL INSPECT TREE PROTECTION AREAS FOR COMPACTION AND MECHANICAL DAMAGE. IF THE ARBORIST DETERMINES THAT EITHER OF THESE EXISTS, THE CONTRACTOR WILL REMEDY AT HIS EXPENSE. MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO EVALUATION BY A LICENSED ARBORIST, AIRSPADING, BIOPLEX TREATMENT, CABLING, ROOT PRUNING AND PRUNING OF CANOPY/LIMBS.

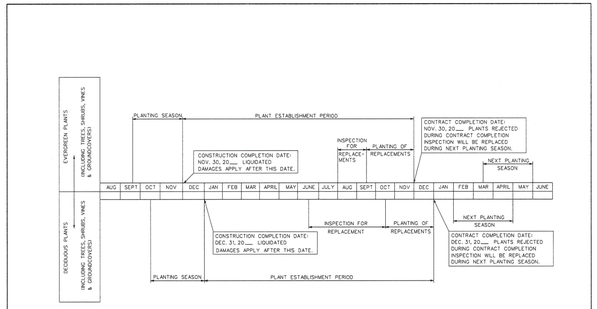
30. CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO THE REMOVAL OF ALL TIMBER CURBS AND REPLACEMENT WITH NEW CURB MATERIALS, WITHIN THE CRITICAL ROOT ZONES OF EXISTING TREES TO REMAIN SHALL BE REVIEWED AND APPROVED BY A ISA CERTIFIED THIRD PARTY ARBORIST. ADDITIONAL TREE PROTECTION MEASURES SHALL COMPLY WITH THE CURRENT VERSION OF DDOT STANDARD SPECIFICATIONS FOR HIGHWAY STRUCTURES, SECTION 608.07 & 608.08.

31. FOR TREES WITHIN THEBIORETENTION AREAS, REFER TO DOEE SWM GUIDEBOOK FOR TREE INSPECTION AND TREE MAINTENANCE CRITERIA (SECTIONS 3.14.3 & 3.14.4).

32. TREE PLANTING AND STAKING SHALL COMPLY WITH THE CURRENT VERSION OF DDOT STANDARD SPECIFICATIONS FOR HIGHWAY STRUCTURES, SECTION 608 AND PER STANDARD DRAWINGS NO. 608.2 & 608.3.

33. PEAT MOSS IS NOT ALLOWED FOR USE AS A SOIL AMENDMENT.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		54	75



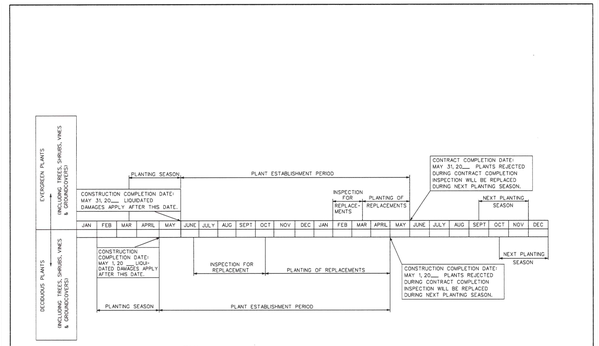
NOTE:
1. FOR DURATION OF CONTRACTOR'S LIABILITY, SEE DDOT STANDARD SPECIFICATION, 608.02.

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

PLANTING & PLANT ESTABLISHMENT PERIODS FALL PLANTING SEASON

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 608.09



NOTE:
1. FOR DURATION OF CONTRACTOR'S LIABILITY, SEE DDOT STANDARD SPECIFICATION, 608.02.

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

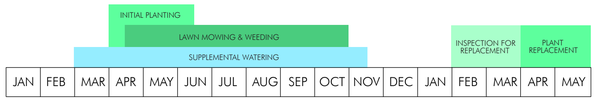
PLANTING & PLANT ESTABLISHMENT PERIODS SPRING PLANTING SEASON

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

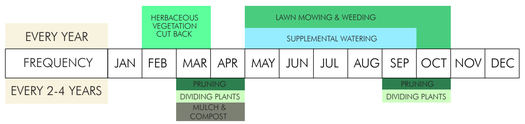
DWG. NO. 608.08

LANDSCAPE MAINTENANCE CALENDARS:

FIRST YEAR LANDSCAPE ESTABLISHMENT



REGULAR MAINTENANCE SCHEDULE



PLANT LAYER DEFINITIONS

BASE LAYER - FERNS - Ferns begin producing fiddleheads in early spring with green fronds emerging by mid-late spring. Fronds remain green and persist throughout the winter, offering fall and winter color. Standing winter vegetation protects groundcover species from extreme cold.

BASE LAYER - GRASSES + RUSHES - Warm season grasses reach their peak at midsummer and persist throughout the winter, offering fall color and winter interest. Rushes should be cut back in early spring to encourage late spring leaf growth. Standing winter vegetation protects groundcover species from extreme cold.

PERENNIALS - SEASONAL COLOR - Perennials provide color throughout the growing season. In the winter, seed heads and foliage add structural interest and provide food and cover for wildlife, especially birds. Plants should be allowed to spread and fill in open areas.

PERENNIALS - FILLER - These species were selected for their ability to spread and fill open spaces in the meadow area and some typical perennial mixes. They should be allowed to spread (within reason) so that weeds connot establish in the open space.

GROUNDCOVERS - 'GREENMULCH' - Serving as 'green mulch', groundcover plants spread via seed and rhizomes to fill open spaces. They are cool season species, growing and flowering early in the year when warm season plants are still dormant. They are protected from the harsh summer sun as grasses and perennials shade them from above. These groundcovers are semi-evergreen throughout the winter and should not be cut back. They can be easily divided and planted in bare areas.

LANDSCAPE MAINTENANCE PRACTICES:

WATERING:
- Selected plants are drought tolerant once established but will need frequent watering throughout the initial establishment period, especially during the first summer.
- Watering bags should be placed at all trees and filled once per week throughout the first growing seasons (Spring through Fall)
- Watering activities should take care not to disturb tender herbaceous plants, especially as they establish root systems in the first growing seasons.

MOWING & WEEDING:
- When weeds do occur, they should be cut at the base, NOT PULLED, to discourage soil disturbance.
- Take care not to remove desirable species as they spread to fill open voids in the planting.
- Weeding should be done weekly in the spring and summer, especially during the first two years of establishment.
- Weeding will become become less necessary over time as the ground layer becomes increasingly covered and shaded by the designed planting. If weeds are not allowed sunlight, they will not grow.

INSPECTION & PLANT REPLACEMENT
- Plants will be inspected by the DDOT Landscape Architect or Arborist upon request by the Contractor and Owner.
- All dead plants and all plants not in a thriving condition will be replaced by the contractor according to the terms of the plant warranty.

CUTTING BACK: PERENNIALS AND GRASSES
- Vegetation should be left standing throughout the winter with a cut back in early spring as new growth begins to emerge from the base of plants.
- Standing vegetation provides food and habitat for wildlife (especially birds) and reduces weed germination by completely covering the ground throughout the year.
- Herbaceous plants (with the exception of groundcovers) should be cut to a height of 3-6 inches of the ground.

MULCHING:
- Planting should require very little mulch after planting and initial establishment.
- The goal is for the plants themselves to be a living mulch, completely covering the ground once fully established.
- Seasonal mulching is discouraged except as needed around trees and shrubs.
- Adding mulch will disturb the soil and encourage weed germination. It will also discourage desired groundcovers and perennials from spreading.
- When mulching trees and shrubs, apply 1 inch of mulch when initial mulch layer has deteriorated and areas of bare soil can be seen. Dividing groundcover plants and planting them at bare areas below trees and shrubs can be used as an alternative or in addition to regular mulching.
- Mulch should be double-shredded hardwood or pine bark mulch. DO NOT USE DYED MULCH

FERTILIZER AND COMPOST:
- Apply compost the top layer of soil when mulch is applied to areas of trees and shrubs.
- Compost should be well-decomposed material, free of weeds, contaminants, and foul odors. Compost may be derived from yard waste or food waste.
- Areas with grasses and perennials will not need regular fertilizer or compost applications.
- Fertilizer should only be applied after compost has been added and the soil has been tested for nutrient levels. Do not over-fertilize.

PRUNING OF TREES AND SHRUBS:
- Trees and shrubs should not be pruned in their first year of establishment.
- Shrubs should require little pruning, except to cut back dead or diseased vegetation or preserve window views.
- Pruning should be done in late winter or early spring. It may be best to coordinate pruning activities with the cutting back of herbaceous plants. Do not prune when conditions are wet. (See tree and shrub guides)
- Trees should be pruned by a trained arborist.

PLANT DIVISION:
- Perennials and grasses may require occasional division to rejuvenate growth. This can be done every 2-4 years, or as plants begin to show die back in their centers.
- When dividing plants, amend backfill soil with compost.
- Divided plants can be used to fill in open areas around the site.

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

MKSK
714 7th Street SE
Washington, DC 20003
202.543.6550

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: | L2-1

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

PLANTING NOTES

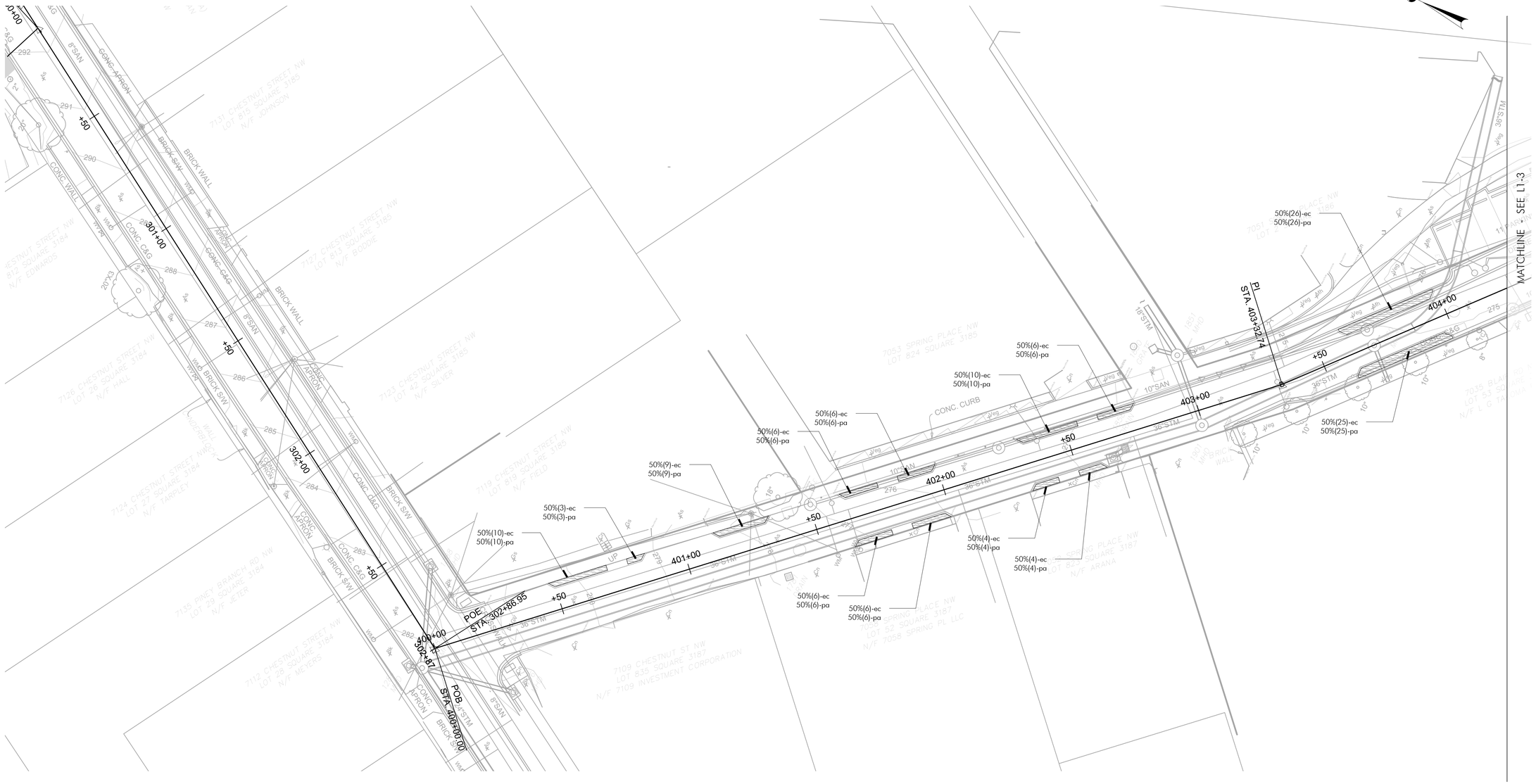
DIVISION CHIEF
DATE 2022
FILE
SHEET 54 OF 75

DRILL HOLES

DRILL HOLES

DRILL HOLES

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		55	75



1 PLANTING PLAN
Scale: 1" = 20'-0"

Plant Schedule					
PERENNIALS/GROUND COVERS					
KEY	QTY	Latin Name	Common Name	Size	Notes
ec	140	Echinacea purpurea	Purple Coneflower	1 gal.	18" O.C.
pa	140	Pennisetum alopecuroides 'Hameln'	Dwarf Fountain Grass	1 gal.	15" O.C.

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

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

MKSK
714 7th Street SE
Washington, DC 20003
202.543.6550

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022	SCALE: 1"=20'	L2-2

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

PLANTING PLAN

DIVISION CHIEF
DATE
FILE
SHEET 55 OF 75

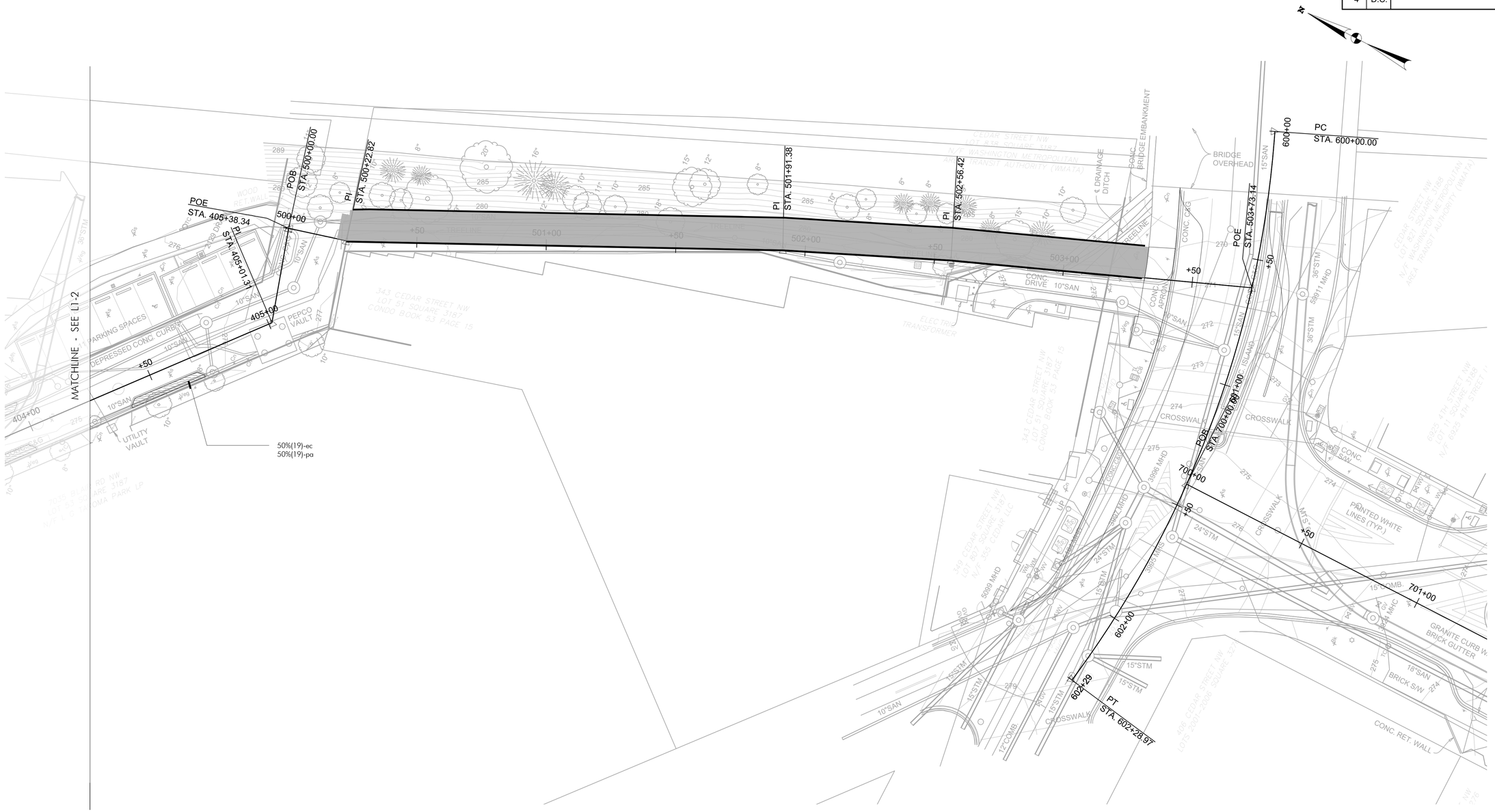
$FILES
$DATES

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		56	75

DRILL HOLES

DRILL HOLES

DRILL HOLES



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30% DESIGN SUBMITTAL
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20' 0' 20' 40'
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MKSK
714 7th Street SE
Washington, DC 20003
202.543.6550

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022	SCALE: 1"=20'	L2-3

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

PLANTING PLAN

DIVISION CHIEF
DATE
FILE
SHEET 56 OF 75

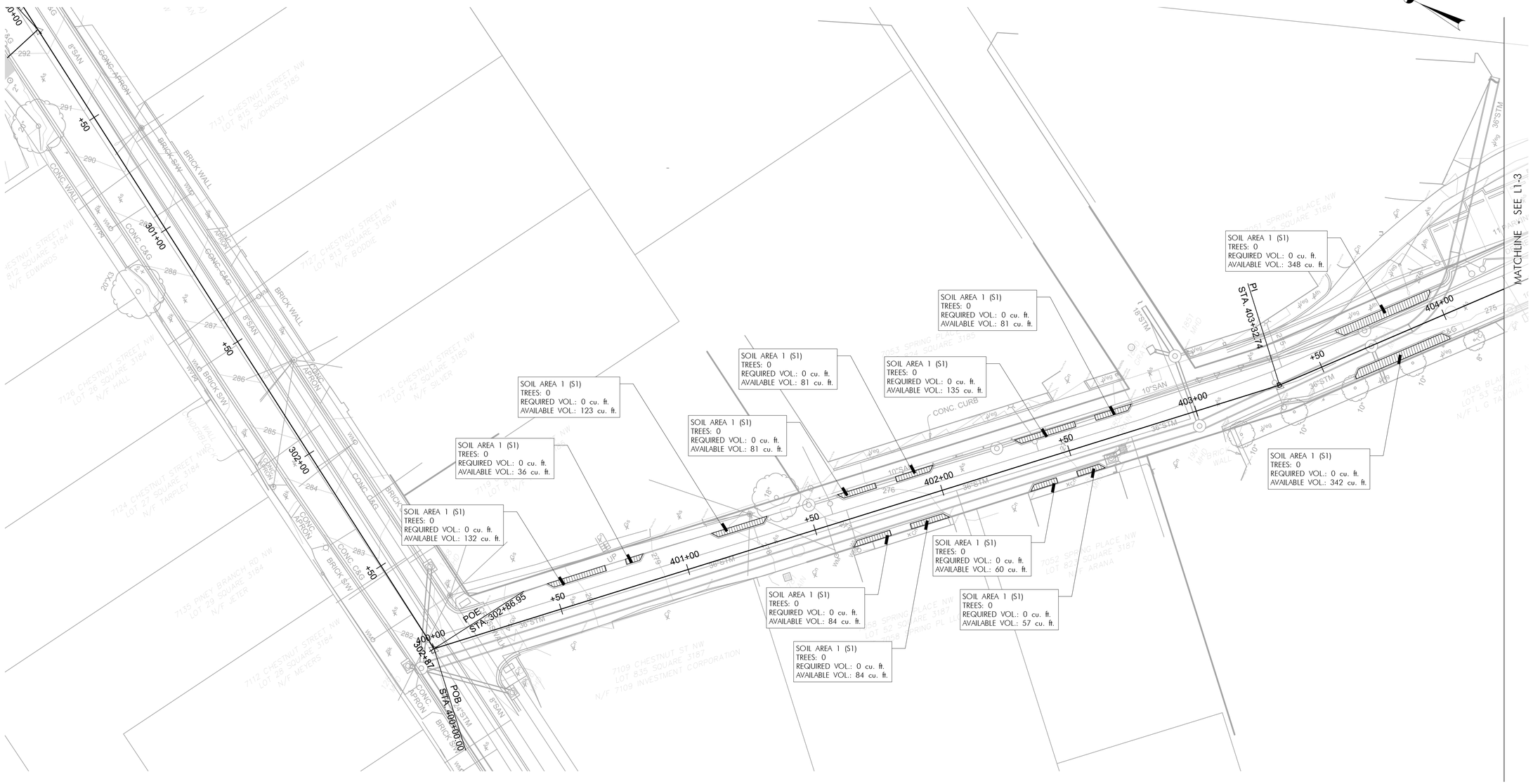
$FILE$
$DATE$

DRILL HOLES

DRILL HOLES

DRILL HOLES

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		57	75



1 SOILS PLAN
Scale: 1" = 20'-0"

SOIL LEGEND

PLANTING SOIL, 3'-0" DEPTH

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

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

MKSK
714 7th Street SE
Washington, DC 20003
202.543.6550

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022	SCALE: 1"=20'	L3-2

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

SOILS PLAN

DIVISION CHIEF
DATE
FILE
SHEET 57 OF 75

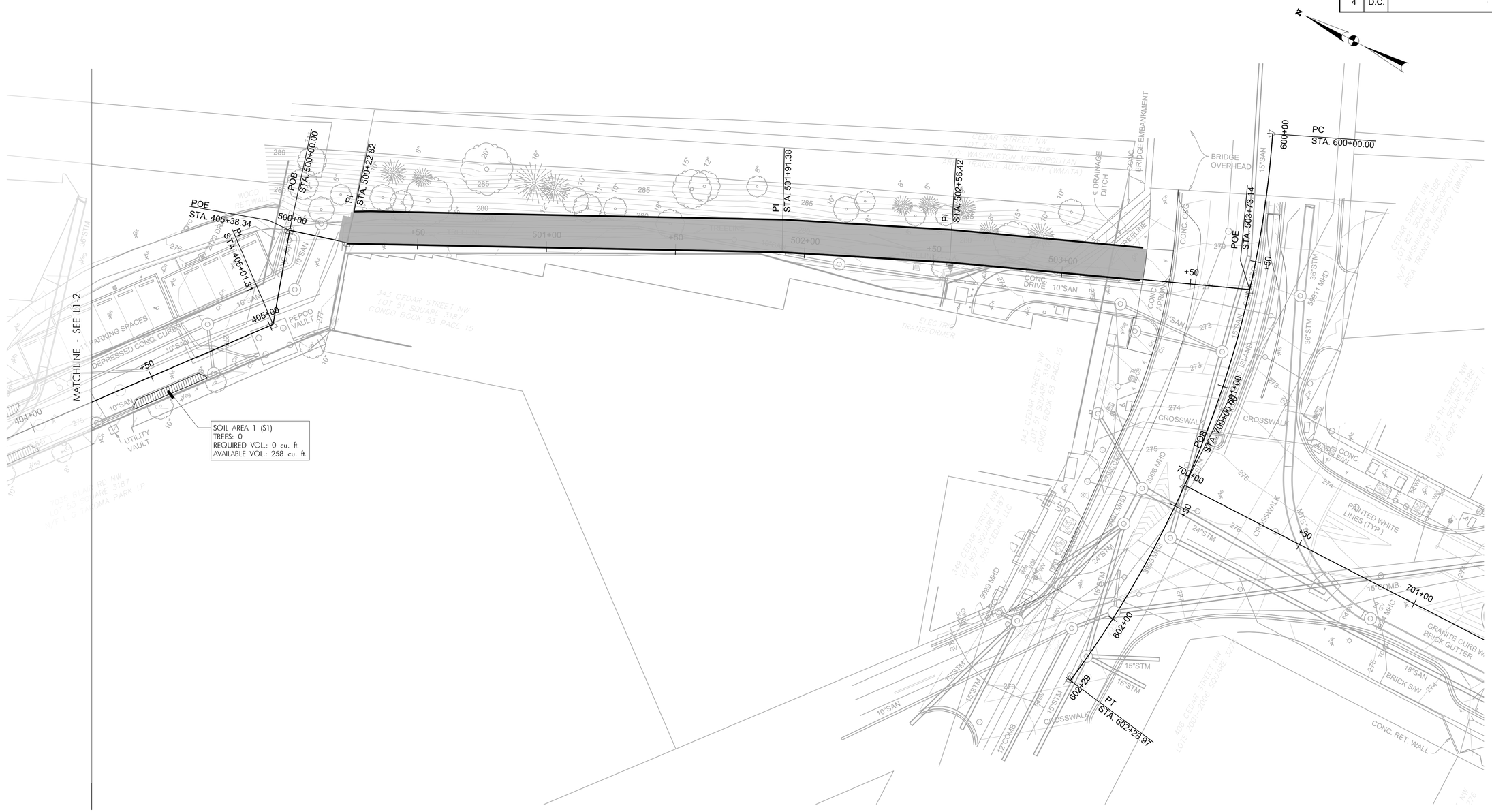
$FILES
$DATES

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		58	75

DRILL HOLES

DRILL HOLES

DRILL HOLES



1 SOILS PLAN
Scale: 1" = 20'-0"

SOIL LEGEND

PLANTING SOIL, 3'-0" DEPTH

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

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

MKSK
714 7th Street SE
Washington, DC 20003
202.543.6550

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1"=20' | L3-3

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

SOILS PLAN

PROJECT ENG.
DESIGNED BY MS/GG
CHECKED BY JF
DRAWN BY GG
PROJECT MGR. GG

DIVISION CHIEF

DATE
FILE
SHEET 58 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		59	75

GENERAL NOTES

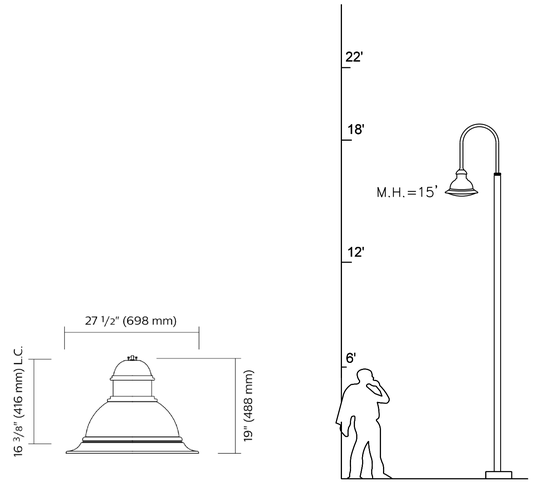
1. THE LOCATION OF THE UTILITIES SHOWN ON THESE PLANS ARE BASED ON FIELD OBSERVATION AND/OR RECORD DRAWINGS. THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND THE LOCATION OF THE UTILITIES SHOWN IS APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UTILITIES IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS THAT COULD DAMAGE THESE UTILITIES.
2. IN THE AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THESE UTILITIES. THE CONTRACTOR SHALL MAINTAIN A MINIMUM ONE (1) FOOT CLEARANCE FROM ALL PEPCO INFRASTRUCTURE.
3. IF AN UNDERGROUND UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER OF THE UTILITY. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW GROUND SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR BACKFILL AN EXCAVATION AFFECTING SAID UTILITY WITHOUT FIRST RECEIVING PERMISSION FROM THE UTILITY OWNER.
4. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING PARTIES AT LEAST FORTY EIGHT (48) HOURS, BUT NOT MORE THAN TEN (10) WORKING DAYS, IN ADVANCE OF PROCEEDING WITH ANY EXCAVATION WORK:

TYPE OF WORK	NOTIFY AGENCIES
GAS, TELEPHONE, ELECTRICAL, CONDUIT& CABLE TV	MISS UTILITY (800-257-7777)
WATERMAIN & SEWERS	WASA (202-673-6600)
FIRE ALARM	DDOT (202-698-3600)
STREET LIGHT DESIGN SECTION	DDOT (202-671-4625 MR. ABDALLA FATAH) (202-359-2678 MR. ANTONIO BYRD)
STREET LIGHT INSPECTION	DDOT (202-359-2678, ANTONIO.BYRD@DC.GOV, MR. ANTONIO BYRD) OR (202-671-4625, ABDALLA.FATAH@DC.GOV, MR. ABDALLA FATAH)

5. ALL LIGHTING FOUNDATIONS SHOWN ON THE PLANS SHALL BE REMOVED COMPLETELY AND BACKFILLED. ALL EXISTING LIGHT CONDUITS TO BE ABANDONED SHALL BE SEALED WITH CONCRETE.
6. ALL ELECTRICAL WORK SHALL CONFORM TO NATIONAL ELECTRIC CODE (NEC), DC ELECTRICAL CODE, DISTRICT OF COLUMBIA STANDARD SPECIFICATIONS (2013 GOLD BOOK), AND DISTRICT OF COLUMBIA STREETLIGHT POLICY AND DESIGN GUIDELINES (FEBRUARY 2013).
7. EXISTING CONDITIONS SHALL BE FIELD VERIFIED. NECESSARY ADJUSTMENTS SHALL BE MADE AS REQUIRED AT NO ADDITIONAL COST TO THE DISTRICT.
8. THE CONTRACTOR SHALL NOTIFY IPMA'S ELECTRICAL INSPECTOR 72 HOURS IN ADVANCE BEFORE ALL STREET LIGHT ELECTRICAL CONSTRUCTION BEGINS AND 48 HOURS ADVANCE NOTIFICATION FOR ELECTRICAL INSPECTION OF CONDUIT DUCT BANK AND LIGHT POLE FOUNDATIONS PRIOR TO CONCRETE ENCASEMENT. CONACT MR. ANTONIO BYRD AT ANTONIO.BYRD@DC.GOV AND 202-359-2678 (CELL).

LIGHTING LEGEND

EXISTING	PROPOSED	
		NEW STEEL STREETLIGHT POST AND STEEL TRANSFORMER BASE WITH LUMINAIRE
		EXISTING STEEL STREETLIGHT POST WITHOUT STEEL TRANSFORMER BASE WITH LUMINAIRE. LUMINAIRE TO BE REMOVED AND REPLACED.
		EXISTING STREET LIGHT POLE WITH STEEL TRANSFORMER WITH LUMINAIRE TO REMAIN
		EXISTING NO. 16 STREET LIGHT POLE TO REMAIN
		NEW DECROATIVE PENDANT POLE.
		EXISTING WOOD POLE WITH LUMINAIRE TO BE REMOVED AND REPLACED
		EXISTING WOOD POLE WITH LUMINAIRE TO REMAIN
	1-2"D	ONE 2" SCHEDULE 80 PVC CONDUIT DUCT (DIRECT BURIED)
		PROPOSED PEPCO POWER SOURCE
		EXISTING TREE
Ⓦ		EXISTING WATER MANHOLE
Ⓣ		EXISTING TELEPHONE MANHOLE
Ⓔ		EXISTING ELECTRICAL MANHOLE
Ⓢ		EXISTING SANITARY MANHOLE
○		EXISTING STORM DRAIN MANHOLE
UK		EXISTING UNKNOWN MANHOLE
⊙		EXISTING GAS VALVE
◑		EXISTING WATER VALVE
⊗		EXISTING WATER METER
TR		EXISTING TRAFFIC CABINET
		EXISTING TRASH CAN
◑		EXISTING WATER CUT-OFF
FH		EXISTING FIRE HYDRANT
		EXISTING CURB DROP INLET
W SAN		EXISTING STORM, WATER OR SANITARY LINE
E G T		EXISTING UNDERGROUND – (ELECTRIC, GAS OR TELEPHONE)



DECORATIVE PENDANT POLE DETAIL

ABBREVIATION LIST

LED	LIGHT EMITTING DIODES
HPS	HIGH PRESSURE SODIUM
MH	MOUNTING HEIGHT
P#	PEPCO FEED POINT
#16	#16 CAST IRON BLACK POST AND CASING
DP	DECORATIVE PENDANT POLE
PP	PENDANT STREETLIGHT POLE
SP	STEEL STREETLIGHT POLE
WP	WOOD POLE
Lxx-#16	INSTALL NEW #16 CAST IRON STREETLIGHT POLE WITH LUMINAIRE
ETR	EXISTING TO REMAIN
RRxx-SP	REMOVE AND REPLACE EXISTING LUMINAIRE ON STEEL POLE WITH STEEL TRANSFORMER BASE WITH NEW LUMINAIRE
RRxx-WP	REMOVE AND REPLACE EXISTING LUMINAIRE ON WOOD POLE WITH NEW LUMINAIRE.
Lxx-SP	INSTALL STEEL POST AND STEEL TRANSFORMER BASE WITH LUMINIARE.
Lxx-DP	DECORATIVE PENDANT POLE

POLE CALL-OUT LEGEND

FIXTURE TYPE / NO. — L#-PEP — POLE TYPE

DRAFT PLANS NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW Suite 209
Washington, DC 20001 (202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: | LT-1

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

STREET LIGHTING GENERAL NOTES

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA
DIVISION CHIEF
DATE
FILE
SHEET 59 OF 75

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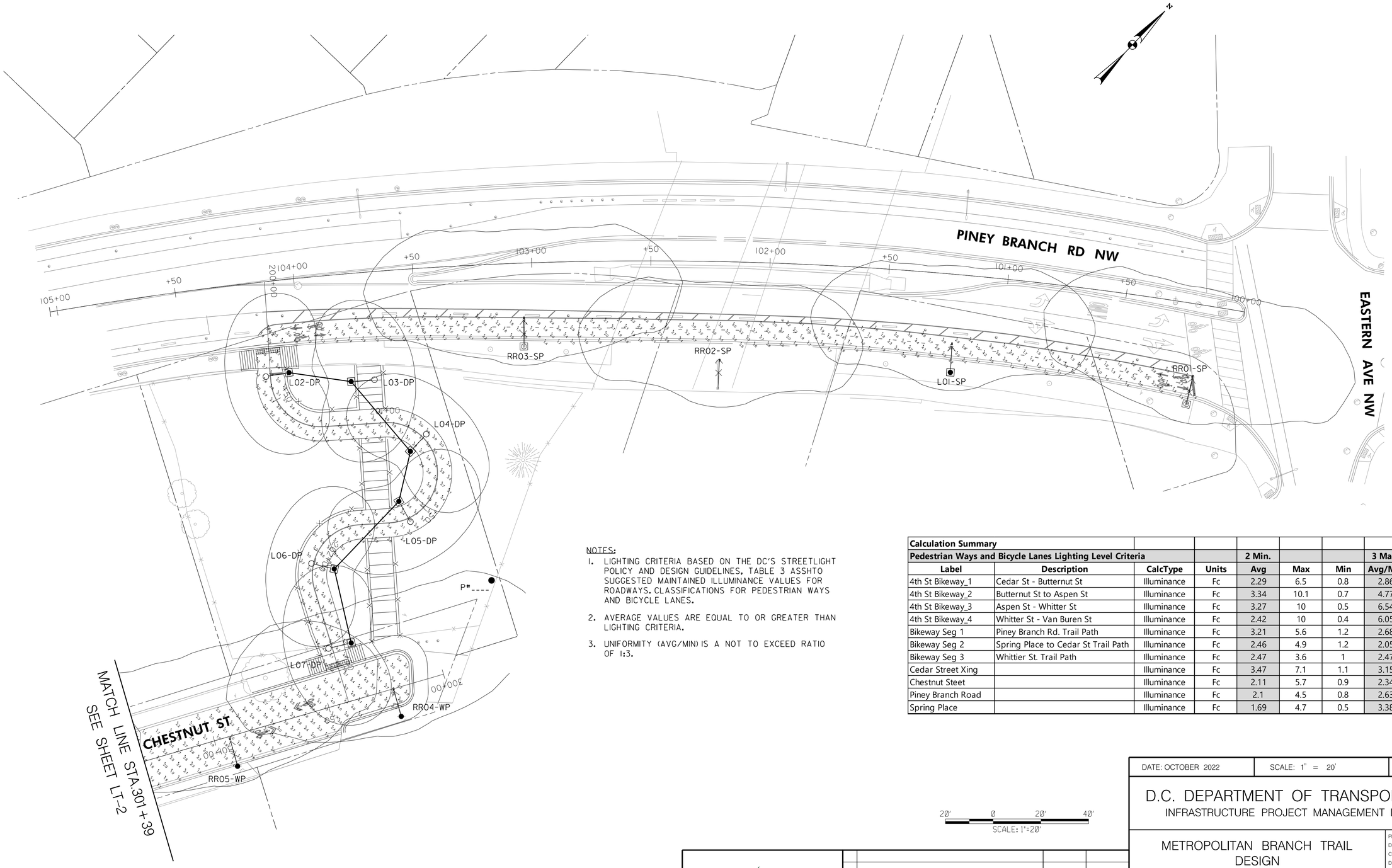
9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		60	75



NOTES:

1. LIGHTING CRITERIA BASED ON THE DC'S STREETLIGHT POLICY AND DESIGN GUIDELINES, TABLE 3 ASSHTO SUGGESTED MAINTAINED ILLUMINANCE VALUES FOR ROADWAYS. CLASSIFICATIONS FOR PEDESTRIAN WAYS AND BICYCLE LANES.
2. AVERAGE VALUES ARE EQUAL TO OR GREATER THAN LIGHTING CRITERIA.
3. UNIFORMITY (AVG/MIN) IS A NOT TO EXCEED RATIO OF 1:3.

Calculation Summary								
Pedestrian Ways and Bicycle Lanes Lighting Level Criteria				2 Min.			3 Max.	
Label	Description	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
4th St Bikeway_1	Cedar St - Butternut St	Illuminance	Fc	2.29	6.5	0.8	2.86	8.13
4th St Bikeway_2	Butternut St to Aspen St	Illuminance	Fc	3.34	10.1	0.7	4.77	14.43
4th St Bikeway_3	Aspen St - Whitter St	Illuminance	Fc	3.27	10	0.5	6.54	20
4th St Bikeway_4	Whitter St - Van Buren St	Illuminance	Fc	2.42	10	0.4	6.05	25
Bikeway Seg 1	Piney Branch Rd. Trail Path	Illuminance	Fc	3.21	5.6	1.2	2.68	4.67
Bikeway Seg 2	Spring Place to Cedar St Trail Path	Illuminance	Fc	2.46	4.9	1.2	2.05	4.08
Bikeway Seg 3	Whittier St. Trail Path	Illuminance	Fc	2.47	3.6	1	2.47	3.6
Cedar Street Xing		Illuminance	Fc	3.47	7.1	1.1	3.15	6.45
Chestnut Steet		Illuminance	Fc	2.11	5.7	0.9	2.34	6.33
Piney Branch Road		Illuminance	Fc	2.1	4.5	0.8	2.63	5.63
Spring Place		Illuminance	Fc	1.69	4.7	0.5	3.38	9.4

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

DRAFT PLANS NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **LT-2**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA

LIGHTING PLAN

DIVISION CHIEF
DATE
FILE
SHEET 60 OF 75

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9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		61	75

NOTES:

1. LIGHTING CRITERIA BASED ON THE DC'S STREETLIGHT POLICY AND DESIGN GUIDELINES, TABLE 3 ASSHTO SUGGESTED MAINTAINED ILLUMINANCE VALUES FOR ROADWAYS. CLASSIFICATIONS FOR PEDESTRIAN WAYS AND BICYCLE LANES.
2. AVERAGE VALUES ARE EQUAL TO OR GREATER THAN LIGHTING CRITERIA.
3. UNIFORMITY (AVG/MIN) IS A NOT TO EXCEED RATIO OF 1:3.

Calculation Summary								
Pedestrian Ways and Bicycle Lanes Lighting Level Criteria				**2 Min.**			**3 Max.**	
Label	**Description**	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
4th St Bikeway_1	Cedar St - Butternut St	Illuminance	Fc	2.29	6.5	0.8	2.86	8.13
4th St Bikeway_2	Butternut St to Aspen St	Illuminance	Fc	3.34	10.1	0.7	4.77	14.43
4th St Bikeway_3	Aspen St - Whitter St	Illuminance	Fc	3.27	10	0.5	6.54	20
4th St Bikeway_4	Whitter St - Van Buren St	Illuminance	Fc	2.42	10	0.4	6.05	25
Bikeway Seg 1	Piney Branch Rd. Trail Path	Illuminance	Fc	3.21	5.6	1.2	2.68	4.67
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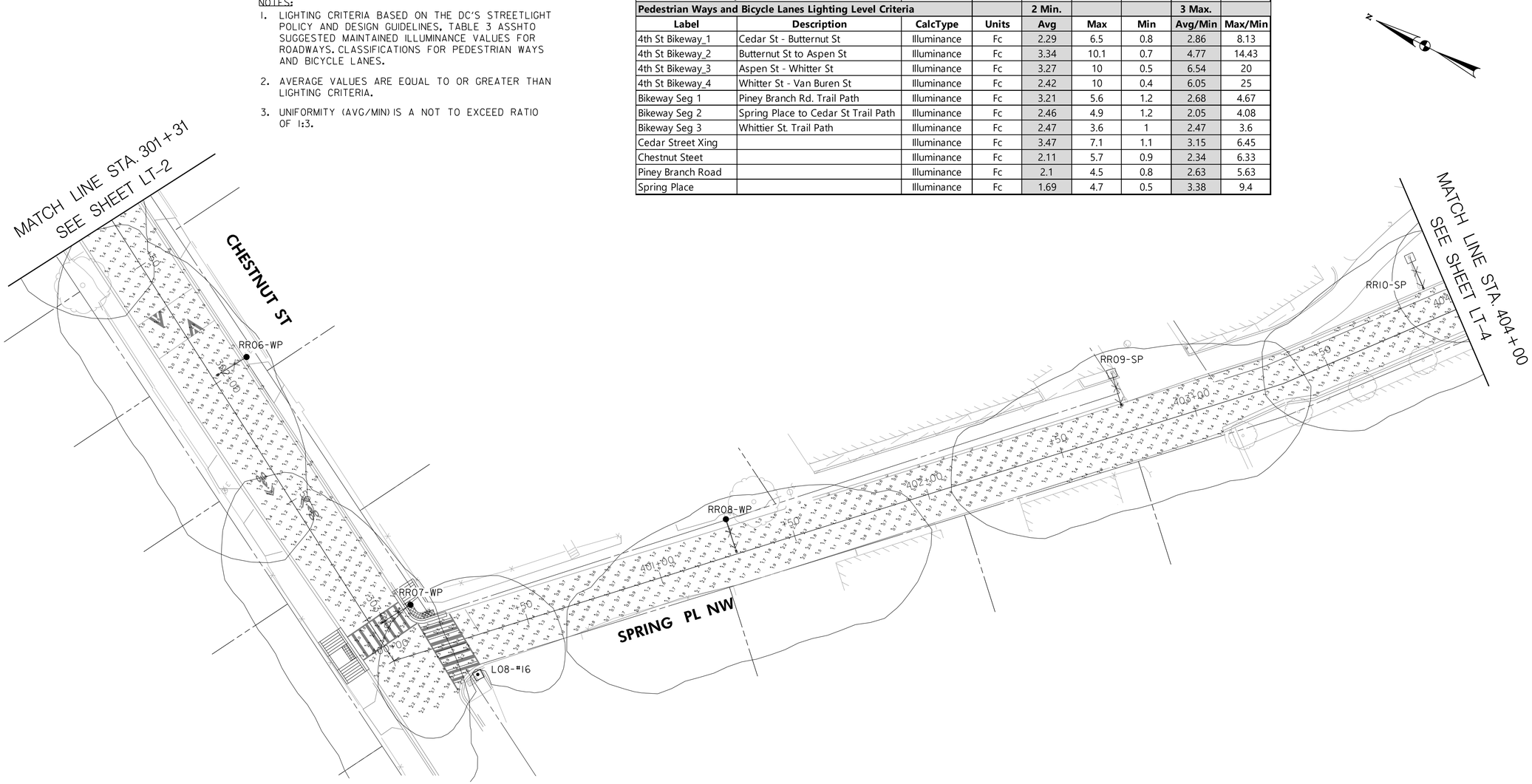
Bikeway Seg 3	Whittier St. Trail Path	Illuminance	Fc	2.47	3.6	1	2.47	3.6
Cedar Street Xing		Illuminance	Fc	3.47	7.1	1.1	3.15	6.45
Chestnut Steet		Illuminance	Fc	2.11	5.7	0.9	2.34	6.33
Piney Branch Road		Illuminance	Fc	2.1	4.5	0.8	2.63	5.63
Spring Place		Illuminance	Fc	1.69	4.7	0.5	3.38	9.4



DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR & PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **LT-3**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA

LIGHTING PLAN

DIVISION CHIEF
DATE
FILE
SHEET 61 OF 75

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9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		62	75

NOTES:

1. LIGHTING CRITERIA BASED ON THE DC'S STREETLIGHT POLICY AND DESIGN GUIDELINES, TABLE 3 ASSHTO SUGGESTED MAINTAINED ILLUMINANCE VALUES FOR ROADWAYS. CLASSIFICATIONS FOR PEDESTRIAN WAYS AND BICYCLE LANES.
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Calculation Summary								
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Label	**Description**	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
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Cedar Street Xing		Illuminance	Fc	3.47	7.1	1.1	3.15	6.45
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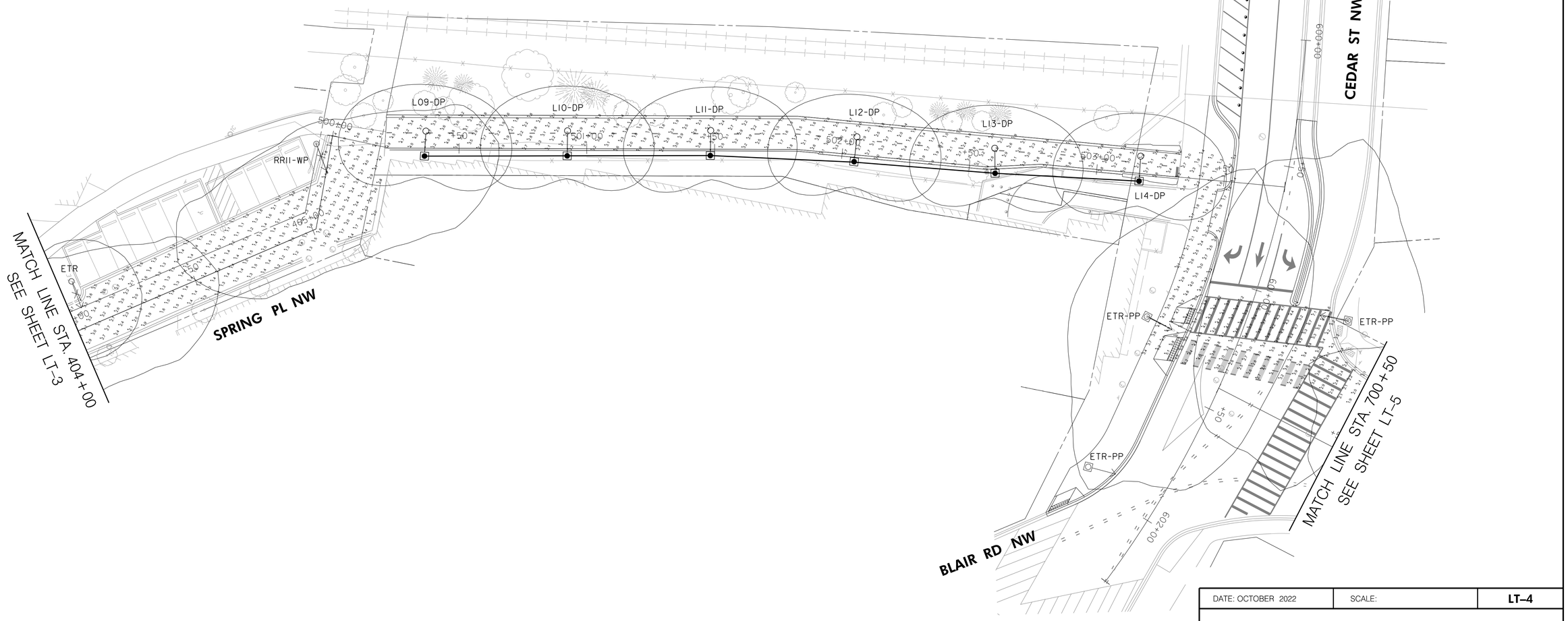
Piney Branch Road		Illuminance	Fc	2.1	4.5	0.8	2.63	5.63
Spring Place		Illuminance	Fc	1.69	4.7	0.5	3.38	9.4



DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR & PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: | **LT–4**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA

LIGHTING PLAN

DIVISION CHIEF
DATE
FILE
SHEET 62 OF 75

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9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		63	75

NOTES:

1. LIGHTING CRITERIA BASED ON THE DC'S STREETLIGHT POLICY AND DESIGN GUIDELINES, TABLE 3 ASSHTO SUGGESTED MAINTAINED ILLUMINANCE VALUES FOR ROADWAYS. CLASSIFICATIONS FOR PEDESTRIAN WAYS AND BICYCLE LANES.
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Calculation Summary								
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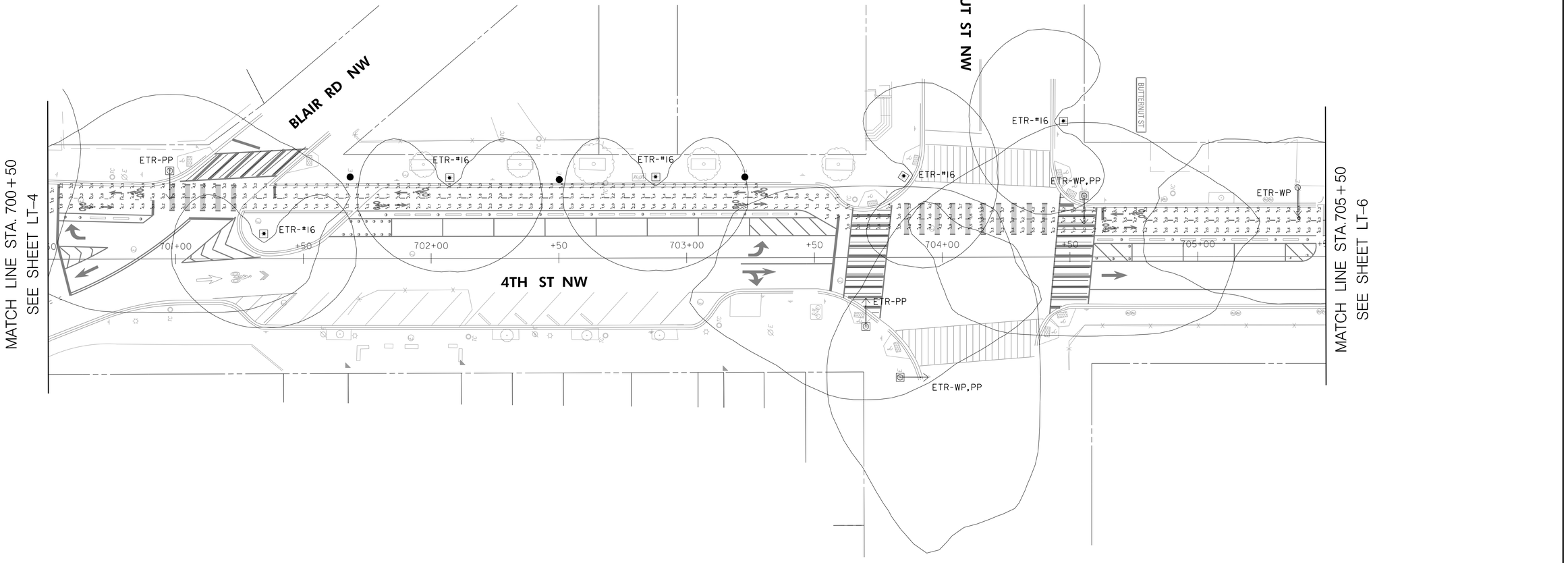

20' 0 20' 40'
SCALE: 1"=20'

DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR & PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **LT-5**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

LIGHTING PLAN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA

DIVISION CHIEF
DATE
FILE
SHEET 63 OF 75

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9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		64	75

NOTES:

1. LIGHTING CRITERIA BASED ON THE DC'S STREETLIGHT POLICY AND DESIGN GUIDELINES, TABLE 3 ASSHTO SUGGESTED MAINTAINED ILLUMINANCE VALUES FOR ROADWAYS. CLASSIFICATIONS FOR PEDESTRIAN WAYS AND BICYCLE LANES.
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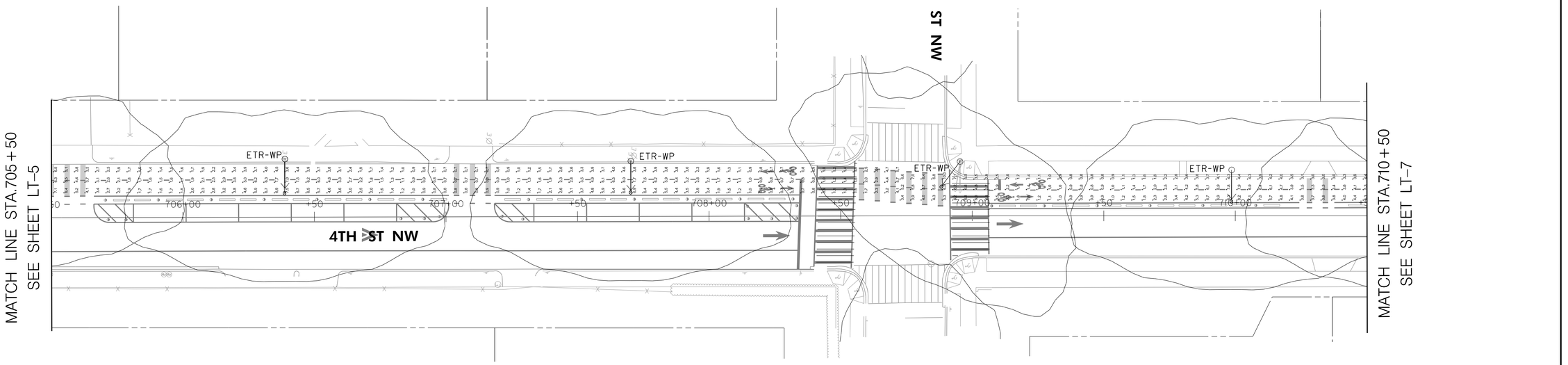

20' 0 20' 40'
SCALE: 1"=20'

DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR & PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **LT-6**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY BW
PROJECT MGR. CA

LIGHTING PLAN

DIVISION CHIEF
DATE
FILE
SHEET 64 OF 75

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9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		65	75

MATCH LINE STA.710+50
SEE SHEET LT-6

NOTES:

1. LIGHTING CRITERIA BASED ON THE DC'S STREETLIGHT POLICY AND DESIGN GUIDELINES, TABLE 3 ASSHTO SUGGESTED MAINTAINED ILLUMINANCE VALUES FOR ROADWAYS. CLASSIFICATIONS FOR PEDESTRIAN WAYS AND BICYCLE LANES.
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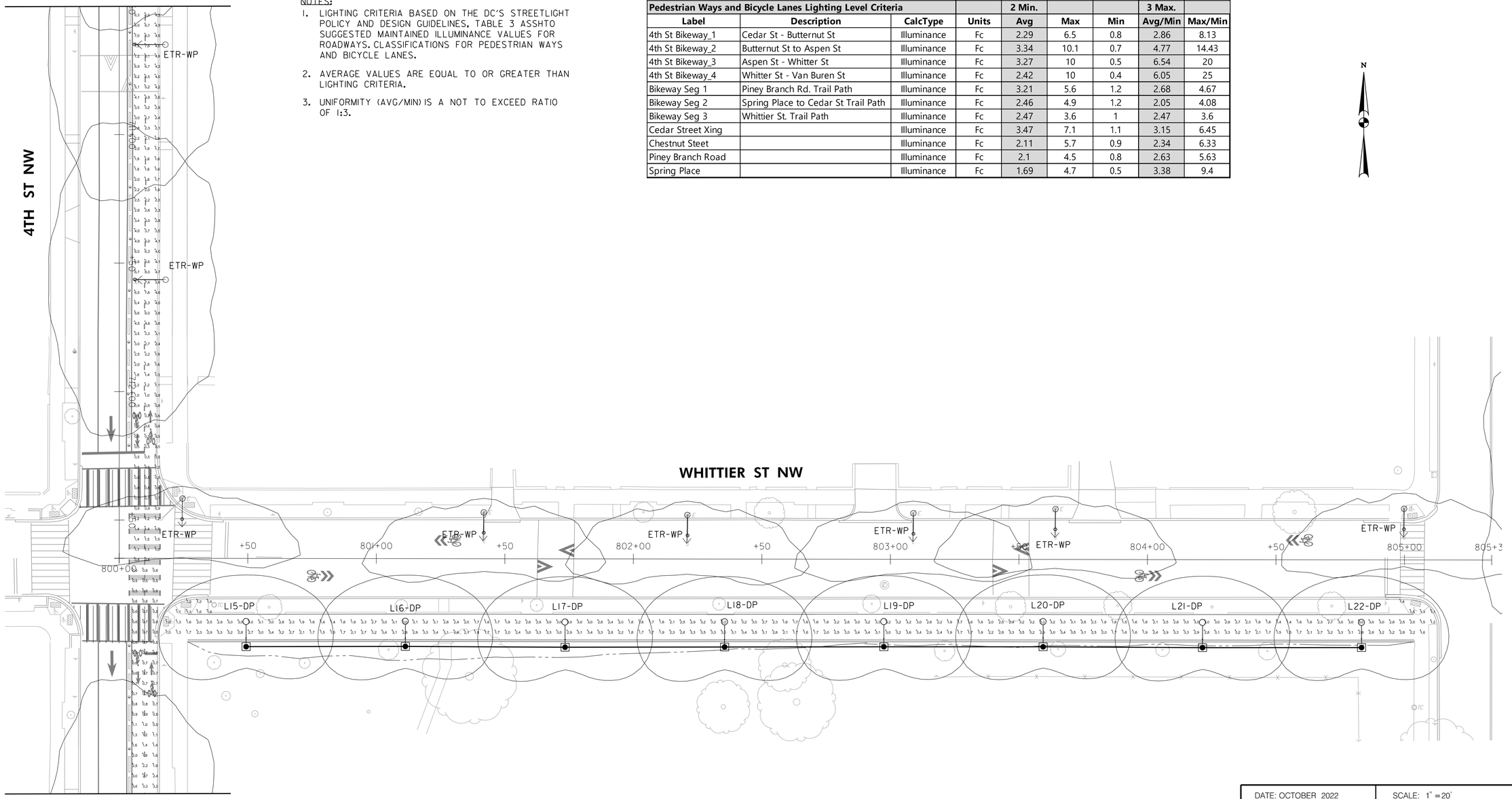

MATCH LINE STA.713+57
SEE SHEET LT-8

DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **LT-7**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

LIGHTING PLAN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY RW
PROJECT MGR. CA

DIVISION CHIEF

DATE
FILE
SHEET 65 OF 75

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9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		66	75

NOTES:

1. LIGHTING CRITERIA BASED ON THE DC'S STREETLIGHT POLICY AND DESIGN GUIDELINES, TABLE 3 ASSHTO SUGGESTED MAINTAINED ILLUMINANCE VALUES FOR ROADWAYS. CLASSIFICATIONS FOR PEDESTRIAN WAYS AND BICYCLE LANES.
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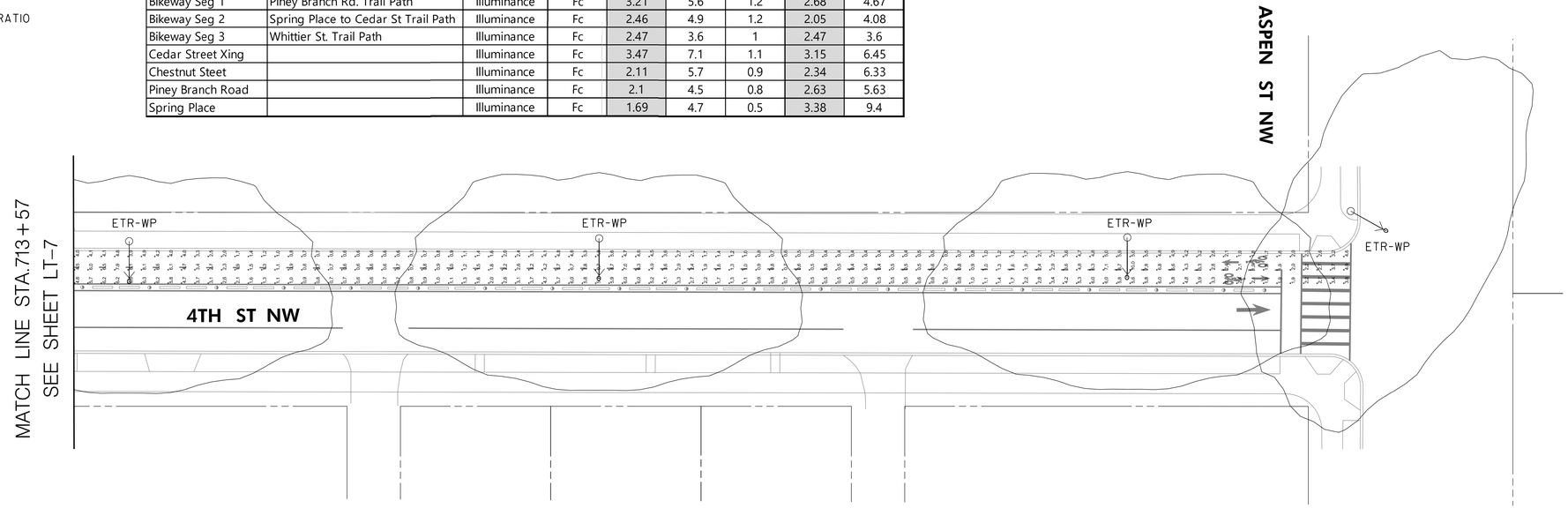


DRAFT PLANS
NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW
Suite 209
Washington, DC 20001
(202) 854-2750

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | **LT-8**

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. CA
DESIGNED BY JM
CHECKED BY JP
DRAWN BY RW
PROJECT MGR. CA

LIGHTING PLAN

DIVISION CHIEF
DATE
FILE
SHEET 66 OF 75

C:\Users\bwillett\OneDrive - Fehr & Peers\Desktop\FnP_Projects\DC\DC21-0073Met\CAD\30_Submittal\0073-LT8.dgn
9/29/2022

REVISION								
DESCRIPTION	DATE	COR.	CHK.	APP.	APP.	APP.	APP.	APP.

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		67	75

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. THE CONTRACTOR SHALL SUBMIT TO THE DDOT CATALOG CUTS OF ALL EQUIPMENT AND MATERIALS TO BE FURNISHED AND INSTALLED. WRITTEN APPROVAL FROM DDOT SHALL BE SECURED PRIOR TO PROCUREMENT.

B. 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.

C. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PROPOSED CONDUITS, MANHOLES, POLE FOUNDATIONS, AND CONTROLLER CABINET FOUNDATION.

D. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRAFFIC AND PEDESTRIAN SIGNAL HEADS, TRAFFIC SIGNAL POLES, TRANSFORMER BASES, APS UNITS, TRAFFIC SIGNAL CONTROLLER, CABINET, AND ALL MOUNTING HARDWARE.

E. THE CONTRACTOR SHALL RETURN ALL REMOVED TRAFFIC SIGNAL EQUIPMENT TO DDOT TRAFFIC SIGNAL SHOP. CONTACT MR. RANDOLPH COPPER 72 HOURS IN ADVANCE AT (202) 905-6059 TO ARRANGE SERVICE.

F. NO ABOVE GROUND HARDWARE OR EQUIPMENT SHALL BE LOCATED SUCH THAT A 4 FEET CLEAR PATH IS NOT AVAILABLE FOR ADA PURPOSES.

G. STREETLIGHT LUMINAIRE MUST BE MAINTAINED ALL THE TIME. USE PROPOSED STREETLIGHTS AS NECESSARY.

INSTALLATION NOTES:

A. EXISTING TRAFFIC SIGNAL EQUIPMENT TO REMAIN.

B. INSTALL 20-FOOT TRAFFIC SIGNAL POLE WITH A STEEL TRANSFORMER BASE.

C. INSTALL 28.5-FOOT PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LED LUMINAIRE.

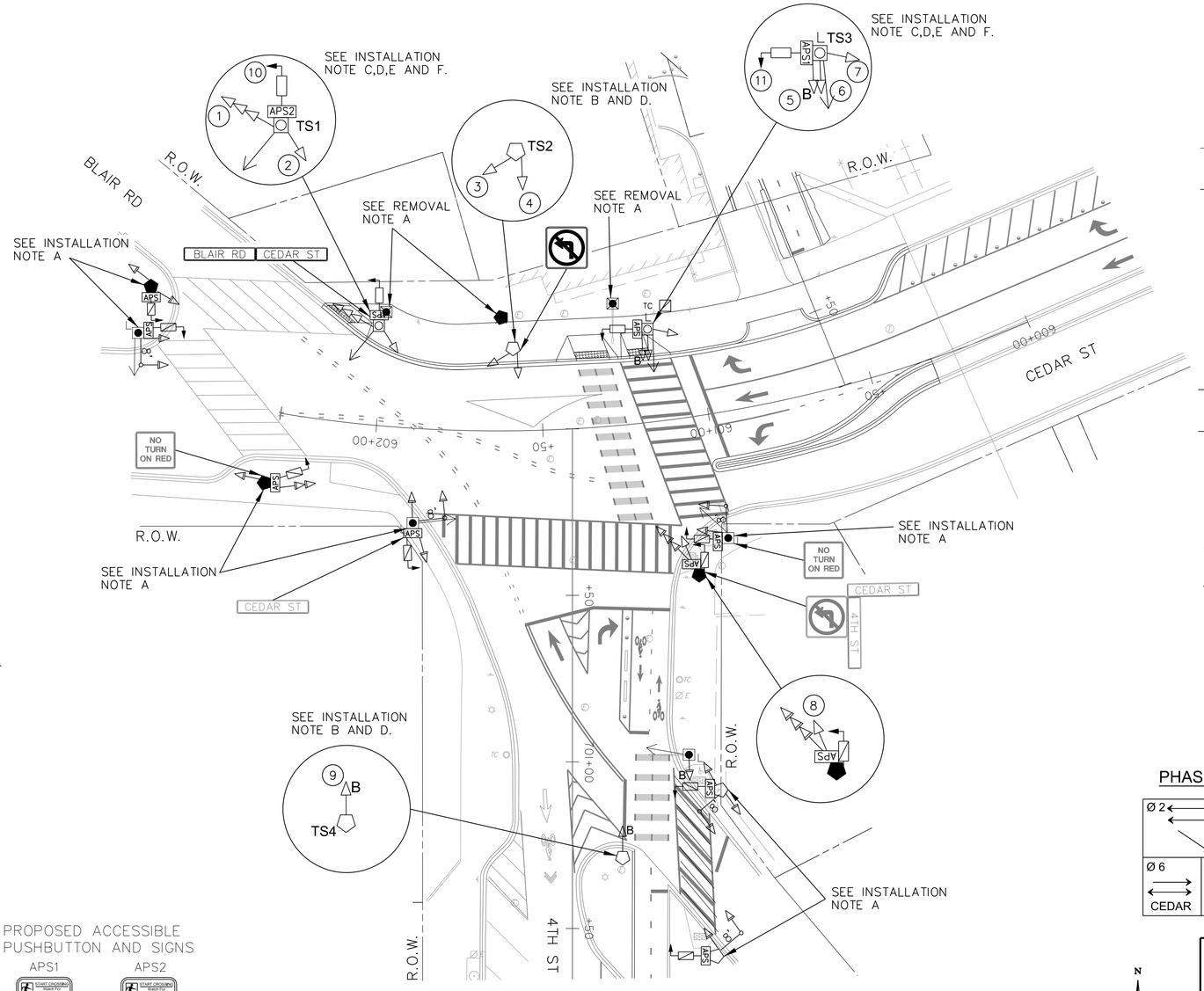
D. INSTALL LED TRAFFIC SIGNAL HEAD(S).

E. INSTALL LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD(S).

F. INSTALL APS PUSH BUTTON UNIT(S) AND SIGN.

REMOVAL NOTES:

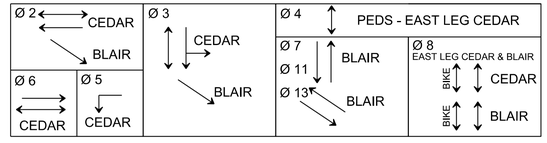
A. REMOVE EXISTING TRAFFIC SIGNAL POLE(S) (ANY TYPE), EXISTING SIGNAL HEADS (ANY TYPE), AND EXISTING SIGN(S).



LEGEND:

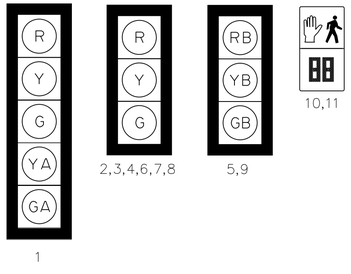
- EXISTING TRAFFIC SIGNAL CONTROLLER WITH CABINET
- EXISTING 28.5-FOOT PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LUMINAIRE
- PROPOSED 28.5-FOOT STEEL PENDANT POST STREETLIGHT POLE WITH A STEEL TRANSFORMER BASE AND LED LUMINAIRE
- EXISTING 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A TRANSFORMER BASE
- PROPOSED 20-FOOT STEEL TRAFFIC SIGNAL POLE WITH A TRANSFORMER BASE
- EXISTING LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- PROPOSED LUMINAIRE AND SUPPORT ARM INDICATING DIRECTION OF LIGHT
- EXISTING 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- PROPOSED 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- EXISTING 4-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- PROPOSED 4-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- EXISTING 5-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- PROPOSED 5-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- EXISTING 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- PROPOSED 3-SECTION LED TRAFFIC SIGNAL HEAD CONVENTIONAL (ALL LENSES 12 INCHES)
- EXISTING 2-SECTION LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD
- PROPOSED 2-SECTION LED COUNT-DOWN PEDESTRIAN SIGNAL HEAD
- EXISTING ACCESSIBLE PEDESTRIAN SIGNAL (APS)
- PROPOSED ACCESSIBLE PEDESTRIAN SIGNAL (APS)
- EXISTING 8-FOOT MAST ARM WITH CAP AND CLAMP
- TS TRAFFIC SIGNAL (S) MOUNTED ON STREETLIGHT POLE
- REMOVE INDICATED TRAFFIC SIGNAL OR STREETLIGHT UNIT

PHASE DIAGRAM:

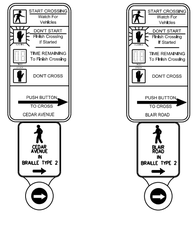


SEQUENCE OF OPERATION DRAWING NO. TS-XXXX, ACISA NO. XXXX

PROPOSED LED SIGNALS



PROPOSED ACCESSIBLE PUSHBUTTON AND SIGNS



GRAPHIC SCALE

20 10 0 20 40

1" = 20'-0" HORIZ.

DRAFT PLANS NOT FOR CONSTRUCTION

FEHR PEERS
1003 K Street NW Suite 209
Washington, DC 20001 (202) 854-2750

S.L.F. NO.

APPROVED BY DATE

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING AND SAFETY DIVISION

CEDAR ST /4TH ST /BLAIR RD
TRAFFIC SIGNAL MODIFICATION

SUBMITTED BY _____ TRAFFIC SIGNAL PROJECT ENGINEER _____ DATE

RECOMMENDED _____ TRAFFIC SIGNAL DESIGN PROJECT MANAGER _____ DATE

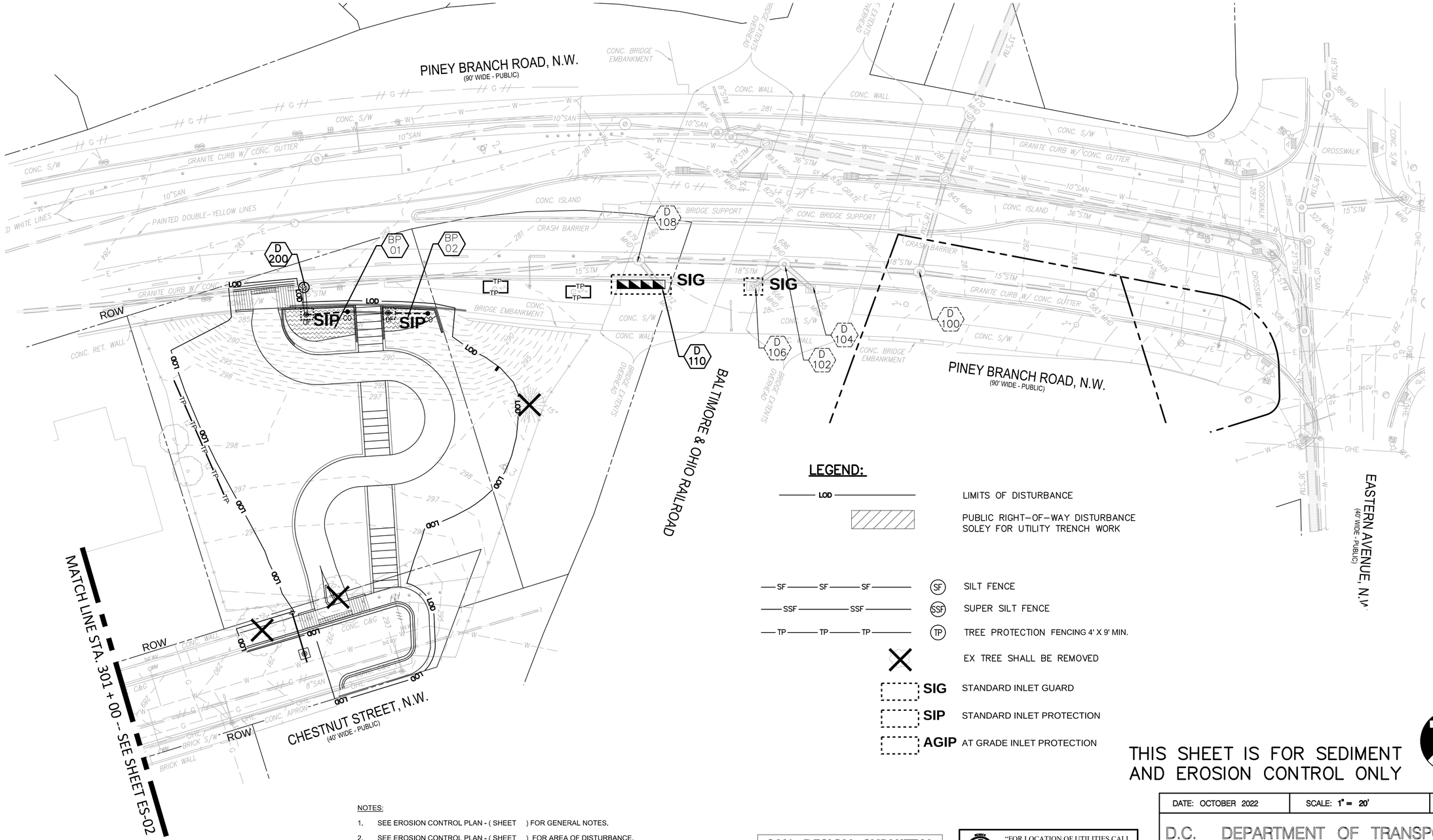
_____ ITS /TRAFFIC SIGNAL MAINTENANCE DIVISION MANAGER _____ DATE

APPROVED _____ TRAFFIC SIGNAL PROGRAM MANAGER _____ DATE

30%	
FIELD CHECKED BY	XXX
DESIGNED BY	NR
DRAWN BY	JM
REVIEWED BY	JP
DATE	10 /2022
SCALE	1" = 20'
SHEET	67 OF 75
DRAWING NO.	SG-1

C:\Users\bwillet\OneDrive - Fehr & Peers\Desktop\FnP_Projects\DC\DC21-0073Met\CAD\30_Submittal\0073-SG1.dgn
9/29/2022

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		68	75



LEGEND:

LOD	LIMITS OF DISTURBANCE
	PUBLIC RIGHT-OF-WAY DISTURBANCE SOLEY FOR UTILITY TRENCH WORK
SF	SILT FENCE
SSF	SUPER SILT FENCE
TP	TREE PROTECTION FENCING 4' X 9' MIN.
X	EX TREE SHALL BE REMOVED
SIG	STANDARD INLET GUARD
SIP	STANDARD INLET PROTECTION
AGIP	AT GRADE INLET PROTECTION

THIS SHEET IS FOR SEDIMENT AND EROSION CONTROL ONLY

NOTES:

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

SITE STABILIZATION NOTE

FOLLOWING INITIAL LAND DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR INTERIM STABILIZATION SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FOR THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE (3) HORIZONTAL TO ONE (1) VERTICAL (3:1); AND FOURTEEN (14) DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THE REQUIREMENTS OF THIS PARAGRAPH DO NOT APPLY TO THOSE AREAS WHICH ARE SHOWN ON THE PLAN AND ARE BEING USED FOR MATERIAL STORAGE OTHER THAN STOCKPILING, OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE BEING PERFORMED. MAINTENANCE SHALL BE PERFORMED AS NECESSARY SO THAT STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE DISTRICT OF COLUMBIA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

"FOR LOCATION OF UTILITIES CALL 8-1-1 or 1-800-257-7777 OR LOG ON TO or 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY"

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www.designgreenllc.com

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022	SCALE: 1" = 20'	ES-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

EROSION & SEDIMENT CONTROL PLAN

PROJECT ENG.	BMW
DESIGNED BY	BMW
CHECKED BY	RB
DRAWN BY	BMW
PROJECT MGR.	RB

DIVISION CHIEF

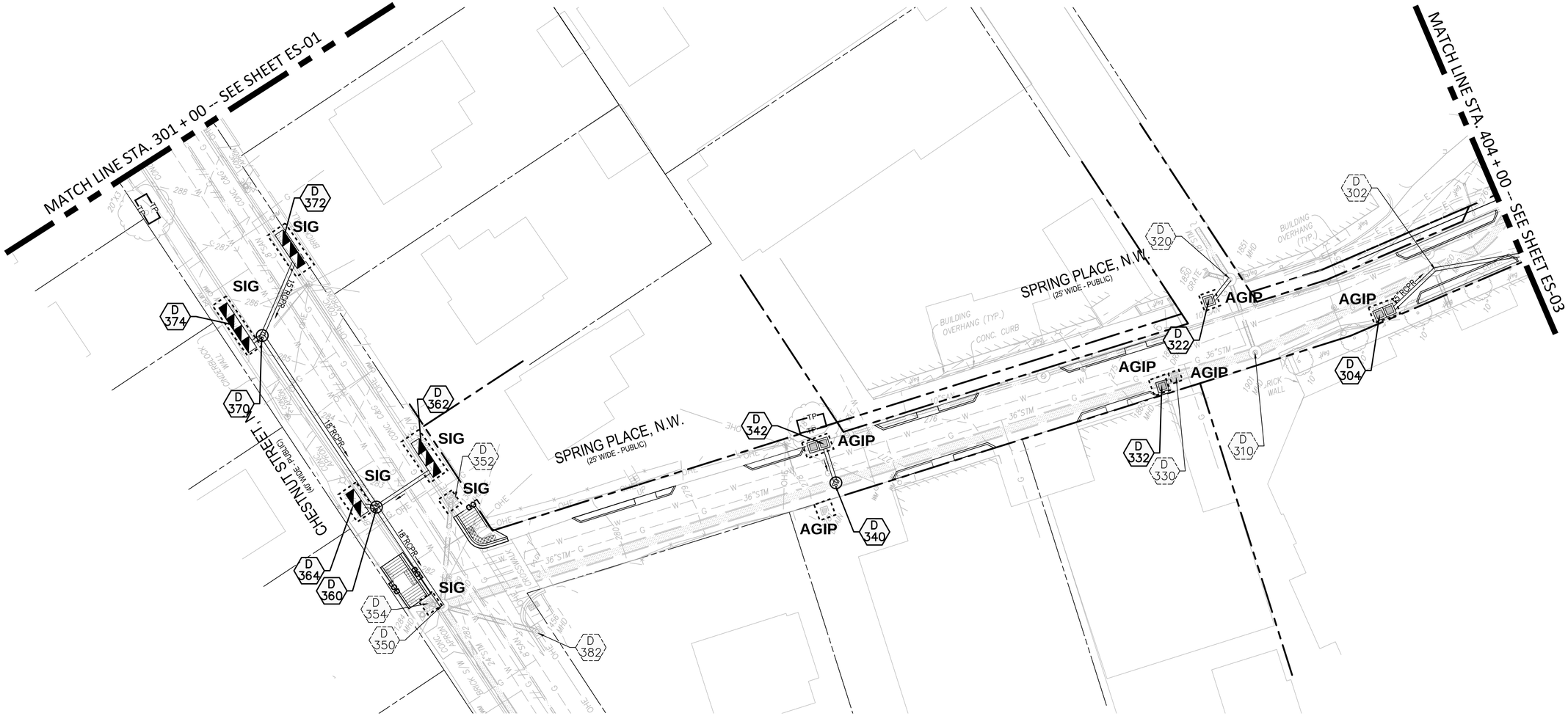
DATE

FILE

SHEET 68 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		69	75



LEGEND:

LOD	LIMITS OF DISTURBANCE
	PUBLIC RIGHT-OF-WAY DISTURBANCE SOLEY FOR UTILITY TRENCH WORK
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30% DESIGN SUBMITTAL
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | ES-02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

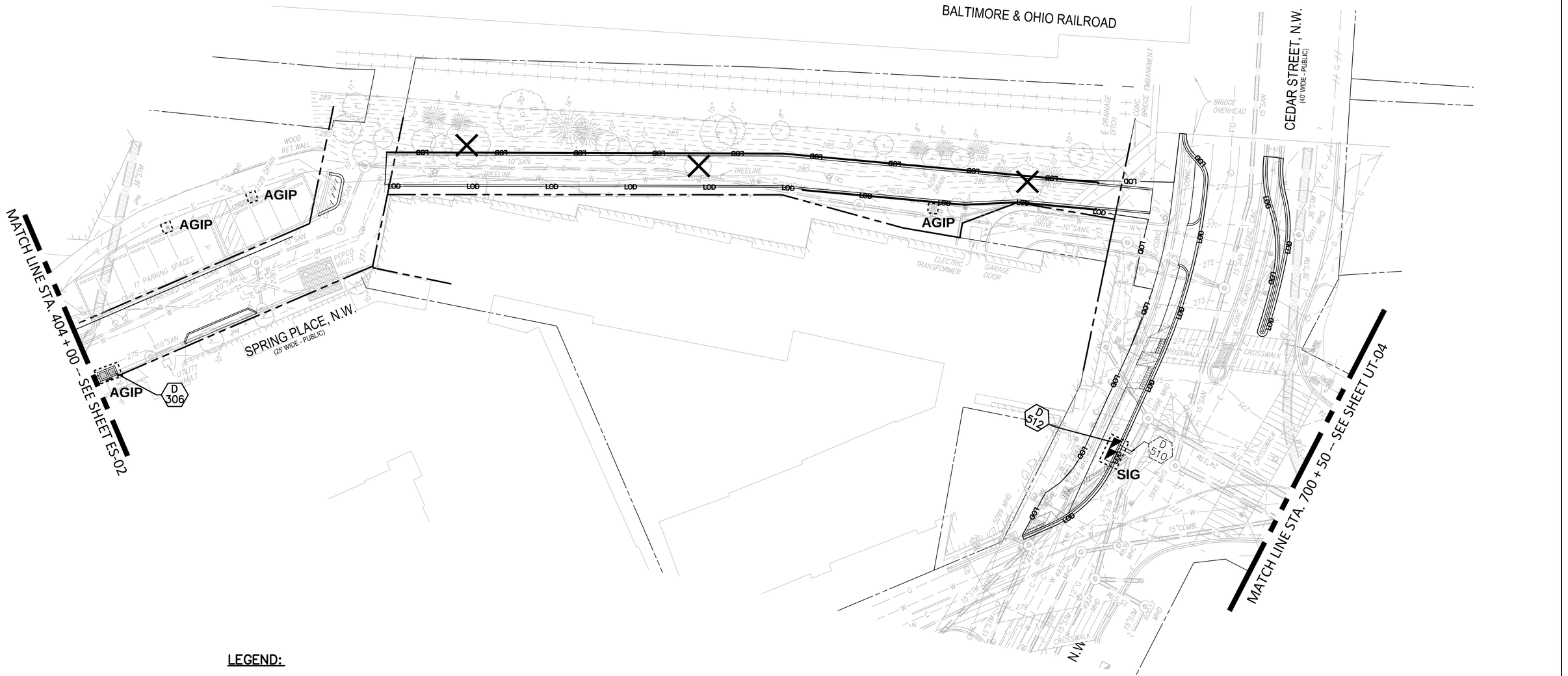
EROSION & SEDIMENT CONTROL PLAN

PROJECT ENG.	BMW
DESIGNED BY	BMW
CHECKED BY	RB
DRAWN BY	BMW
PROJECT MGR.	RB

DIVISION CHIEF
DATE
FILE
SHEET 69 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		70	75



LEGEND:

LOD	LIMITS OF DISTURBANCE
	PUBLIC RIGHT–OF–WAY DISTURBANCE SOLEY FOR UTILITY TRENCH WORK
SF	SILT FENCE
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | ES-03

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

EROSION & SEDIMENT CONTROL PLAN

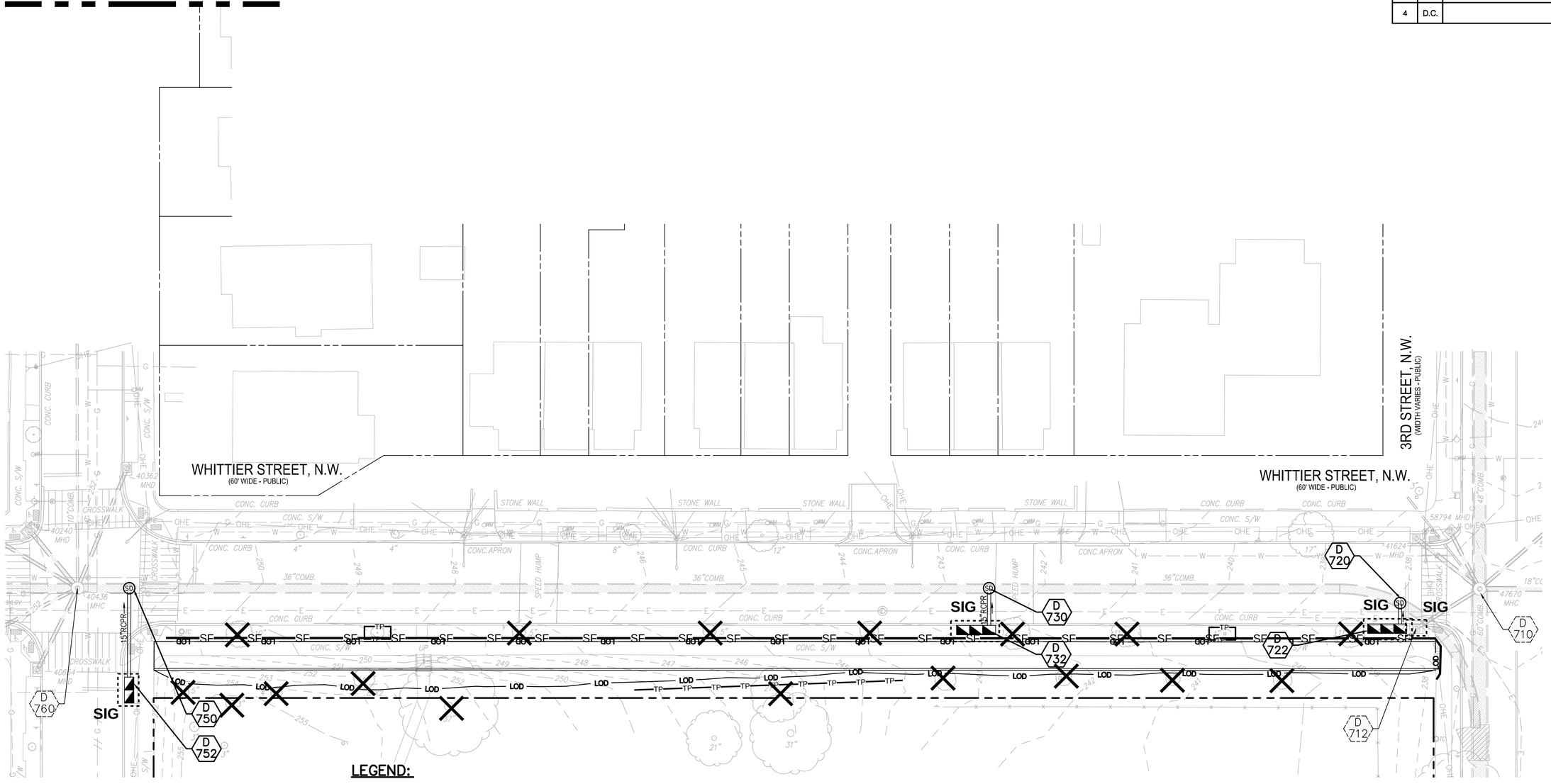
PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DIVISION CHIEF
DATE
FILE
SHEET 70 OF 75

$FILE$
$DATE$

MATCH LINE STA. 710 + 50 -- SEE SHEET UT-05

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		71	75



LEGEND:

LOD	LIMITS OF DISTURBANCE
	PUBLIC RIGHT-OF-WAY DISTURBANCE SOLEY FOR UTILITY TRENCH WORK
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30% DESIGN SUBMITTAL
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: 1" = 20' | ES-04

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

EROSION & SEDIMENT CONTROL PLAN

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DIVISION CHIEF

DATE
FILE
SHEET 71 OF 75

$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		72	75

DOEE SOIL EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES

1. Following initial land disturbance or re-disturbance, permanent or interim stabilization must be completed within seven (7) calendar days for the surfaces of all perimeter controls, dikes, swales, ditches, perimeter slopes, and slopes greater than three (3) horizontal to one (1) vertical (3:1); and fourteen (14) days for all other disturbed or graded areas on the project site. These requirements do not apply to areas shown on the plan that are used for material storage other than stockpiling, or for those areas on the plan where actual construction activities are being performed. Maintenance shall be performed as necessary so that stabilized areas continuously meet the appropriate requirements of the District of Columbia Standards and Specifications for Soil Erosion and Sediment Control (ESC). [21 DCMR § 542.9 (o)]
2. ESC measures shall be in place before and during land disturbance. [21 DCMR § 543.6]
3. Contact DOEE Inspection (202) 535-2977 to schedule a preconstruction meeting at least three (3) business days before the commencement of a land-disturbing activity. [21 DCMR § 503.7 (a)]
4. A copy of the approved plan set will be maintained at the construction site from the date that construction activities begin to the date of final stabilization and will be available for DOEE inspectors. [21 DCMR § 542.15]
5. ESC measures shall be in place to stabilize an exposed area as soon as practicable after construction activity has temporarily or permanently ceased but no later than fourteen (14) days following cessation, except that temporary or permanent stabilization shall be in place at the end of each day of underground utility work that is not contained within a larger development site. [21 DCMR § 543.7]
6. Stockpiled material being actively used during a phase of construction shall be protected against erosion by establishing and maintaining perimeter controls around the stockpile. [21 DCMR § 543.16 (a)]
7. Stockpiled material not being actively used or added to shall be stabilized with mulch, temporary vegetation, hydro-seed or plastic within fifteen (15) calendar days after its last use or addition. [21 DCMR § 543.16 (b)]
8. Fill material must be free of contamination levels of any pollutant that is, or may be considered to represent, a possible health hazard to the public or may be detrimental to surface or ground water quality, or which may cause damage to property or the drainage system. All fill material must be free of hazardous materials and comply with all applicable District and federal regulations.
9. Protect best management practices from sedimentation and other damage during construction for proper post construction operation. [21 DCMR § 543.5]
10. Request a DOEE inspector's approval after the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. [21 DCMR § 542.12 (a)]
11. Request a DOEE inspector's approval after final stabilization of the site and before the removal of erosion and sediment controls. [21 DCMR § 542.12 (b)]
12. Final stabilization means that all land-disturbing activities at the site have been completed and either of the following two criteria have been met: (1) a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover with a density of seventy percent (70%) of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or (2) equivalent permanent stabilization measures have been employed (such as the use of riprap, gabions, or geotextiles). [21 DCMR § 542.12 (b.1, b.2)]
13. Follow the requirements of the United States Environmental Protection Agency approved Stormwater Pollution Prevention Plan (SWPPP) and maintain a legible copy of this SWPPP on site. [21 DCMR § 543.10 (b)]
14. Post a sign that notifies the public to contact DOEE in the event of erosion or other pollution. The sign will be placed at each entrance to the site or as directed by the DOEE inspector. Each sign will be no less than 18 x 24 inches in size and made of materials that will withstand weather for the duration of the project. Lettering will be at least 1 inch in height and easily readable by the public from a distance of twelve feet (12 ft). The sign must direct the public, in substantially the following form: "To Report Erosion, Runoff, or Stormwater Pollution" and will provide the construction site address, DOEE's telephone number (202-535-2977), DOEE's e-mail address (IEB.scheduling@dc.gov), and the 311 mobile app heading ("Construction-Erosion Runoff"). [21 DCMR § 543.22]

If a site disturbs 5,000 square feet of land or greater, the ESC plan must contain the following statement:

15. A *Responsible Person* must be present or available while the site is in a land-disturbing phase. The *Responsible Person* is charged with being available to (a) inspect the site and its ESC measures at least once biweekly and after a rainfall event to identify and remedy each potential or actual erosion problem, (b) respond to each potential or actual erosion problem identified by construction personnel, and (c) speak on site with DOEE to remedy each potential or actual erosion problem. A *Responsible Person* shall be (a) licensed in the District of Columbia as a civil or geotechnical engineer, a land surveyor, or architect; or (b) certified through a training program that DOEE approves, including a course on erosion control provided by another jurisdiction or professional association. During construction, the *Responsible Person* shall keep on site proof of professional licensing or of successful completion of a DOEE-approved training program. [21 DCMR § 547]

Pollution Prevention Good Housekeeping Stamp Notes

Fuels and Oils	On-site refueling will be conducted in a dedicated location away from access to surface waters. Install containment berms and, or secondary containments around refueling areas and storage tanks. Spills will be cleaned up immediately and contaminated soils disposed of in accordance with all federal and District of Columbia regulations. Petroleum products will be stored in clearly labeled tightly sealed containers. All vehicles on site will be monitored for leaks and receive regular preventive maintenance activities. Any asphalt substances used on site will be applied according to manufacturer's recommendations. Spill kits will be included with all fueling sources and maintenance activities.
Solid Waste	No solid materials shall be discharged to surface water. Solid materials including building materials, garbage and paint debris shall be cleaned up daily and deposited into dumpsters, which will be periodically removed and deposited into a landfill.
Abrasive Blasting	Water blasting, sandblasting, and other forms of abrasive blasting on painted surfaces built prior to 1978 may only be performed if an effective containment system prevents dispersal of paint debris.
Fertilizer	Fertilizers will be applied only in the minimum amounts recommended by the manufacturer, worked into the soil to limit exposure to stormwater, and stored in a covered shed. Partially used bags will be transferred to a sealable bin to avoid spills.
Paint and Other Chemicals	All paint containers and curing compounds will be tightly sealed and stored when not required for use. Excess paint will not be discharges to the storm sewers, but will be properly disposed of according to manufacturer's recommendations. Spray guns will be cleaned on a removable tarp. Chemicals used on site are kept in small quantities and in closed containers undercover and kept out of direct contact with stormwater. As with fuels and oils, any inadvertent spills will be cleaned up immediately and disposed of according federal and District of Columbia regulations.
Concrete	Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash on site, except in a specially designated concrete disposal area. Form release oil for decorative stone work will be applied over a pallet covered with an absorbent material to collect excess fluid. The absorbent material will be replaced and disposed of properly when saturated.
Water Testing	When testing and, or cleaning water supply lines, the discharge from the tested pipe will be collected and conveyed to a completed stormwater conveyance system for ultimate discharge into a stormwater best management practice (BMP).
Sanitary Waste	Portable lavatories located on site will be services on a regular basis by a contractor. Portable lavatories will be located in an upland area away from direct contact with surface waters. Any spills occurring during servicing will be cleaned immediately and contaminated soils disposed of in accordance with all federal and District of Columbia regulations.

Construction Specifications for Dust Control

1. The contractor must conduct operations and maintain the project site so as to minimize the creation and dispersion of dust. Use dust control throughout the work at the site.
2. The contractor must provide clean water, free from salt, soil, and other deleterious material to be used for on-site dust control.
3. The contractor shall supply water-spraying equipment capable of accessing all work area.
4. The contractor shall implement strict dust control measures during active construction periods on-site. These control measures shall generally consist of water applications that shall be applied a minimum of once per day during dry weather or more often as required to prevent dust emissions.
5. For water application to undisturbed soil surfaces, the contractor shall:
   - 5.a. Apply water with equipment consisting of tank, spray bar, and pump with discharge pressure gauge.
   - 5.b. Arrange spray bar height, nozzle spacing, and spray pattern to provide complete coverage of ground with water.
   - 5.c. Disperse water through nozzles on spray bar at 20 psi (137.8 kPa) minimum. Keep areas damp without creating nuisance conditions such as ponding.
6. For water application to soil surfaces during demolition and/or excavation, the contractor shall:
   - 6.a. Apply water with equipment consisting of a tank, pump with discharge gauge, hoses, and mist nozzles.
   - 6.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.
   - 6.c. Apply water spray in a manner to prevent movement of spray beyond the site boundaries.

Construction Sequence Notes

1. Sediment traps or basins and other erosion and sediment controls shall be installed no later than the first phase of land grading.
2. Sediment traps or basins and other erosion and sediment controls shall be, installed as soon as new site-related runoff is detected and employed at all times to protect inlets or storm sewers below silt-producing areas.
3. Immediately after debris basins, diversions, waterways, and related structures are built seed and mulch, or install sod & stabilization blanket.
4. No later than the first day of construction install site access measures to minimize off-site vehicle tracking of sediments. Each construction entrance must be stabilized and include each additional measure required to keep sediment from being carried, onto public streets by construction vehicles, and washed into a storm drain or waterways.
5. Remove off-site accumulations of sediment daily during construction and immediately at the request of a DOEE inspector.
6. Perform routine maintenance to prevent any new destabilized areas.

Construction Element	Timeline
Permanent or Temporary Stabilization: Slopes Steeper than 3:1	7 days from last disturbance
Permanent or Temporary Stabilization: Other Slopes	14 days from last disturbance
ESC Measures in Place	Before land disturbance; until after land is stabilized
Temporary Stabilization of Stockpile Areas	15 days from last use or addition

Notes for Underground Utility Work

1. When conducting underground utility work do not open more than five hundred linear feet (500 ft) of trench at any one time.
2. Filter water pumped out of trench excavations prior to discharging to the storm sewer system.
3. Place excavated material for utility work on the uphill side of a trench.
4. Install interim or permanent stabilization immediately after a utility trench is refilled.
5. Use mulch and matting on excavated material to minimize their erosion when natural or artificial grass filter strips are installed to receive stormwater runoff from the excavated materials.

Notes for Roadway Projects

1. Rough graded rights-of-way awaiting installation of utilities or pavement shall be protected by the installation of interceptor dikes across rights-of-way, with spacing of five hundred feet (500 ft) or less between the dikes. The DOEE reviewer may approve alternative controls recommended a DC-licensed PE.
2. The ESC plan must demonstrate how temporary diversion dikes and flumes, or alternative controls recommended by a DC-licensed PE, will convey runoff down cut-and-fill slopes to an DOEE approved outlet.
3. The ESC plan must demonstrate how a permanent drainage structure, including diversions at top-of-slope cuts and diversions to convey runoff to a storm sewer or other suitable outlet, shall be installed at the completion of rough grading, unless the DOEE reviewer approves an alternative recommended by a DC-licensed PE.

Table 1.4 Inspections during Construction

Inspection Type	When Required	When to Notify DOEE
Preconstruction	Before land disturbance	3 business days before any land disturbing activity begins
Pre-BMP construction	Before construction of a stormwater BMP	3 business days before BMP construction begins
Other phase of construction	As indicated on the plan, or per DOEE request either during the preconstruction meeting or during regular construction inspections	3 business days before inspection
Completion of land disturbing activity	At the completion and stabilization of a land-disturbing activity	Within 2 weeks of completing the activity
Final BMP inspection	After a permanent stormwater BMP is constructed	1 week before completing BMP construction
Final construction inspection	Once the site is entirely stabilized and all permanent practices are in place	1 week before inspection and within 4 weeks of completing site construction
As-Built Plan submission	After final site inspection	Within 21 days of final construction inspection

Disturbed Areas

Segment ID	Drainage Areas	Area (sf)
1	1, 2A	
2	2B, 2C & 3D	12,238
3	3A-C, 4A-C & 5B	2,327
4	5A, 6A-6C	
5 & 6 (to Cedar)	6D & 7	7,275
6 (Whittier)	10	6,640
Total		**13,915**

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: AS NOTED | ES-05

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DIVISION CHIEF

EROSION & SEDIMENT CONTROL PLAN NOTES

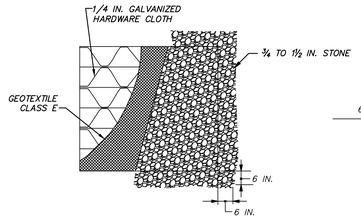
DATE
FILE
SHEET 72 OF 75

$FILE$
$DATE$

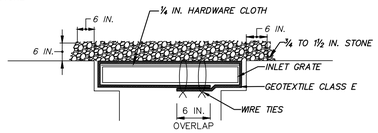
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		73	75

MAXIMUM DRAINAGE AREA = ¼ ACRE

STANDARD SYMBOL AGIP



PLAN/CUT AWAY VIEW



CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. LIFT GRATE AND WRAP WITH GEOTEXTILE CLASS E TO COMPLETELY COVER ALL OPENINGS, SECURE WITH WIRE TIES, THEN SET GRATE BACK IN PLACE.
2. PLACE CLEAN ¾ TO 1–½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 4 TO 6 INCHES THICK ON THE GRATE TO SECURE THE FABRIC.
3. IF THERE ARE ANY SIGNS OF STREET FLOODING OR WATER PONDING, THIS STRUCTURE MUST BE CLEANED OR REPLACED, OR REDESIGNED WITH A VIABLE ALTERNATIVE.

DATE	APPR	
REVISED		
ISSUED:		
	REFERENCE	

AT GRADE INLET PROTECTION
STORM DRAIN INLET PROTECTION

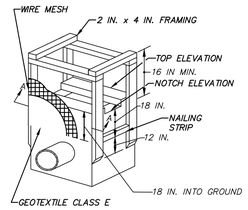
DISTRICT OF COLUMBIA
DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 307.2

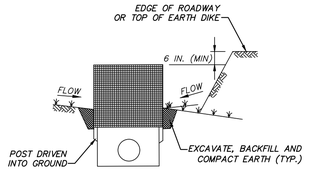
SOURCE: 2011 MARYLAND STANDARDS AND SPECIFICATIONS

MAXIMUM DRAINAGE AREA = ¼ ACRE

STANDARD SYMBOL SIP



ISOMETRIC



SECTION A-A

CONSTRUCTION SPECIFICATIONS

1. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
2. DRIVE 2–INCH x 4–INCH CONSTRUCTION GRADE LUMBER POSTS 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2–INCH x 4–INCH FRAME USING THE OVERLAP JOINT SHOWN ON DETAIL 307.1. THE TOP OF THE FRAME (WEIR) MUST BE 6 INCHES BELOW ADJACENT ROADWAYS WHERE FLOODING AND SAFETY ISSUES MAY ARISE.
3. STRETCH 1/2–INCH x 1/2–INCH WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. THE ENDS MUST MEET AND OVERLAP AT A POST.
4. STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH WITH THE GEOTEXTILE EXTENDING FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. FASTEN THE GEOTEXTILE FIRMLY TO THE FRAME. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED DOWN.
5. BACKFILL AROUND THE INLET IN COMPACTED 6–INCH LAYERS UNTIL THE LAYER OF EARTH IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
6. IF THE INLET IS NOT IN A SUMP, CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.
7. THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED.

DATE	APPR	
REVISED		
ISSUED:		
	REFERENCE	

STANDARD INLET PROTECTION
STORM DRAIN INLET PROTECTION

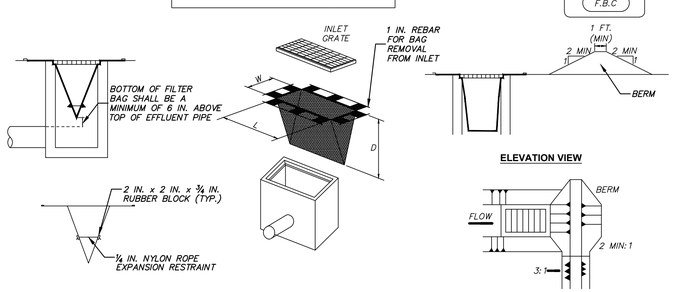
DISTRICT OF COLUMBIA
DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 307.1

SOURCE: 2011 MARYLAND STANDARDS AND SPECIFICATIONS

MAXIMUM DRAINAGE AREA = ½ ACRE

STANDARD SYMBOL F.B.C.



INSTALLATION DETAIL

ELEVATION VIEW

PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. INSTALL PROPRIETARY FILTER BAG PRODUCTS PER MANUFACTURER'S RECOMMENDATIONS.
2. GEOTEXTILE MUST MEET THE SPECIFICATIONS OUTLINED IN TABLE 3.9– GEOTEXTILE MATERIAL PROPERTIES FOR INLET FILTER BAG.
3. INSPECT FILTER BAGS ON A WEEKLY BASIS OR AFTER EACH RAINFALL EVENT, WHICHEVER IS SOONER.
4. CLEAN FILTER BAGS AND/OR REPLACE WHEN THE BAG IS HALF FULL.
5. REPLACE DAMAGED FILTER BAGS IMMEDIATELY.
6. INITIATE NEEDED REPAIRS IMMEDIATELY AFTER THE INSPECTION.

DATE	APPR	
REVISED		
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	REFERENCE	

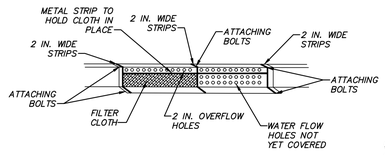
INLET FILTER BAG
CHANNEL OR ROADWAY SWALE

DISTRICT OF COLUMBIA
DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 309.2

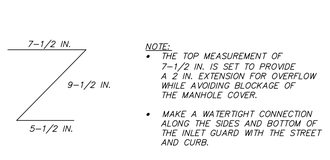
SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

STANDARD SYMBOL SIG



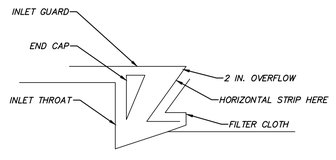
STANDARD INLET GUARD ATTACHMENT METHOD

NOTE:
- AT EACH INTERSECTION OF INLET PROTECTION OVERLAP A MINIMUM OF 2 IN.



NOTE:
- THE TOP MEASUREMENT OF 7–1/2 IN. IS SET TO PROVIDE A 2 IN. EXTENSION FOR OVERFLOW WHILE AVOIDING BLOCKAGE OF THE MANHOLE COVER.
- MAKE A WATERTIGHT CONNECTION ALONG THE SIDES AND BOTTOM OF THE INLET GUARD WITH THE STREET AND CURB.

STANDARD INLET GUARD DIMENSIONS



STANDARD INLET GUARD CROSS SECTION

DATE	APPR	
REVISED		
ISSUED:		
	REFERENCE	

STANDARD INLET GUARD
STORM DRAIN INLET PROTECTION

DISTRICT OF COLUMBIA
DEPARTMENT OF ENERGY & ENVIRONMENT

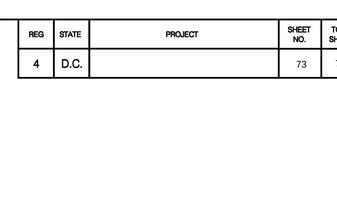
DWG. NO 307.5

SOURCE: 2011 MARYLAND STANDARDS AND SPECIFICATIONS

MAXIMUM DRAINAGE AREA = 2 ACRES

STANDARD SYMBOL DF

ELEVATION



SECTION

CONSTRUCTION SPECIFICATIONS

1. USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2–3/8 INCH MAXIMUM OPENING).
2. USE 2–3/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.
3. FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.
4. SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.
5. EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF 8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE SHEETING ALONG FLOW SURFACE.
6. WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM FACING DOWNGRADE.
7. KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

DATE	APPR	
REVISED		
ISSUED:		
	REFERENCE	

DIVERSION FENCE

DISTRICT OF COLUMBIA
DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 401.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: AS NOTED | ES-06

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

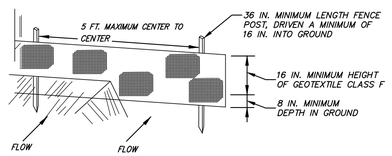
PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

EROSION & SEDIMENT CONTROL PLAN DETAILS

DIVISION CHIEF
DATE
FILE
SHEET 73 OF 75

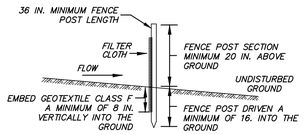
$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		74	75

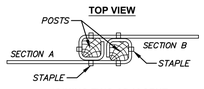


PERSPECTIVE VIEW

STANDARD SYMBOL
SF



CROSS SECTION



JOINING TWO ADJACENT SILT FENCE SECTIONS

CONSTRUCTION SPECIFICATIONS

1. FENCE POSTS MUST BE A MINIMUM OF 36 IN. LONG DRIVEN 16 IN. MINIMUM INTO THE GROUND. WOOD POSTS MUST BE OF SOUND QUALITY HARDWOOD WITH 1–1/2 IN. MINIMUM WIDTH WHEN SQUARE CUT, OR 1–3/4 IN. MINIMUM DIAMETER WHEN ROUND. STEEL POSTS MUST BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
2. FASTEN GEOTEXTILE SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID–SECTION. GEOTEXTILE MUST MEET THE FOLLOWING REQUIREMENTS (GEOTEXTILE CLASS F):

PROPERTY	VALUE	TEST METHOD
TENSILE STRENGTH	50 LBS/IN (MIN.)	ASTM D–4595
TENSILE MODULUS	20 LBS/IN (MIN.)	ASTM D–4595
FLOW RATE	0.3 GAL/FT² /MINUTE (MAX.)	ASTM D–5141
FILTERING EFFICIENCY	75% (MIN.)	ASTM D–5141

3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, OVERLAP, FOLD, AND STAPLE THEM TO PREVENT SEDIMENT BYPASS.
4. INSPECT SILT FENCE AFTER EACH RAINFALL EVENT, AT LEAST DAILY DURING SUSTAINED RAINFALL EVENTS, AND MAINTAIN WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHES 30% OF THE FABRIC HEIGHT.

DATE	APPR	
REVISED		
ISSUED:		REFERENCE

SILT FENCE-1

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 301.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

SILT FENCE DESIGN CRITERIA:

TABLE 3.1: SILT FENCE SLOPE LENGTH AND FENCE LENGTH CONSTRAINTS

SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM) (FEET)	SILT FENCE LENGTH (MAXIMUM) (FEET)
FLATTER THAN 50:1 (2%)	UNLIMITED	UNLIMITED
> 50:1 TO 10:1 (2% to 10%)	125	1,000
> 10:1 TO 5:1 (10% to 20%)	100	750
> 5:1 TO 3:1 (20% to 33%)	60	500
> 3:1 TO 2:1 (33% to 50%)	40	250
> 2:1 (> 50%)	20	125

NOTE:
- IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.
- TO AVOID CIRCUMVENTION, EXTEND THE ENDS OF THE SILT FENCE UPSLOPE TO PREVENT WATER AND SEDIMENT FROM FLOWING AROUND THE ENDS OF THE FENCE.

DATE	APPR	
REVISED		
ISSUED:		REFERENCE

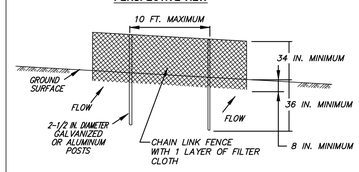
SILT FENCE-2

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

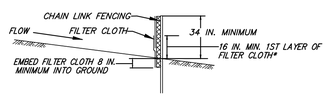
DWG. NO 301.2

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

PERSPECTIVE VIEW



CROSS SECTION



NOTE:
- IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN NECESSARY HEIGHT.
- FENCE POST SPACING SHALL NOT EXCEED 10 FT. CENTER TO CENTER.

STANDARD SYMBOL
SSF

CONSTRUCTION SPECIFICATIONS

1. FENCING MUST BE AT LEAST 42 INCHES IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST DISTRICT DEPARTMENT OF TRANSPORTATION (DDOT) DETAILS FOR CHAIN LINK FENCING. THE DDOT SPECIFICATION FOR A 6–FOOT FENCE MUST BE USED, SUBSTITUTING MINIMUM 42–INCH FABRIC AND 6–FOOT LENGTH POSTS. POSTS DO NOT NEED TO BE SET IN CONCRETE.
2. SECURELY FASTEN CHAIN LINK FENCE TO THE FENCE POSTS WITH WIRE TIES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
3. SECURELY FASTEN GEOTEXTILE TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID–SECTION.
4. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES INTO THE GROUND.
5. WHEN TWO SECTIONS OF GEOTEXTILE FABRIC ADJOIN EACH OTHER, FOLD AND OVERLAP BY 6 INCHES.
6. GEOTEXTILE MUST MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F (FROM TABLE 3.2–SEE BELOW):

PROPERTY	VALUE	TEST METHOD
TENSILE STRENGTH	50 LBS/IN (MIN.)	ASTM D–4595
TENSILE MODULUS	20 LBS/IN (MIN.)	ASTM D–4595
FLOW RATE	0.3 GAL/FT² /MINUTE (MAX.)	ASTM D–5141
FILTERING EFFICIENCY	75% (MIN.)	ASTM D–5141

7. INSPECT SUPER SILT FENCE AFTER EACH RAINFALL EVENT, AT LEAST DAILY DURING SUSTAINED RAINFALL EVENTS, AND MAINTAIN WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHES 30% OF THE FABRIC HEIGHT.

DATE	APPR	
REVISED		
ISSUED:		REFERENCE

SUPER SILT FENCE-1

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 302.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

SUPER SILT FENCE DESIGN CRITERIA:

TABLE 3.3: SUPER SILT FENCE SLOPE LENGTH AND FENCE LENGTH CONSTRAINTS

SLOPE	SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM) (FEET)	SUPER SILT FENCE LENGTH (MAXIMUM) (FEET)
0 – 10%	0 – 10:1	Unlimited	Unlimited
10 – 20%	10:1 – 5:1	200	1,500
20 – 33%	5:1 – 3:1	150	1,00
33 – 50%	3:1 – 2:1	100	500
> 50%	> 2:1	50	250

NOTE:
- TO AVOID CIRCUMVENTION, EXTEND THE ENDS OF THE SILT FENCE 5 HORIZONTAL FEET UPSLOPE AT 45–DEGREE ANGLES RELATIVE TO THE MAIN FENCE ALIGNMENT TO PREVENT SEDIMENT ACCUMULATION.

DATE	APPR	
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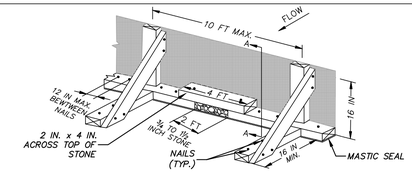
ISSUED:		REFERENCE

SUPER SILT FENCE-2

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

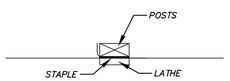
DWG. NO 302.2

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

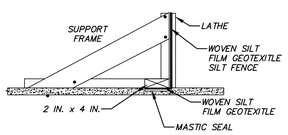


STANDARD SYMBOL
SFOP

ISOMETRIC VIEW



JOINING ADJACENT SECTIONS OF GEOTEXTILE



SECTION A-A

CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH BY 4 INCH LUMBER.
2. USE WOVEN SLIT FILM GEOTEXTILE, AS SPECIFIED IN APPENDIX A.
3. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
4. PROVIDE A 2–FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
5. KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN – OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. ATTACH LATHE.
7. PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT–LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
8. SECURE BOARDS TO PAVEMENT WITH 40D 5–INCH MINIMUM LENGTH NAILS.
9. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

DATE	APPR	
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SILT FENCE ON PAVEMENT

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 310.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS

30% DESIGN SUBMITTAL
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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: AS NOTED | ES-07

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

EROSION & SEDIMENT CONTROL PLAN DETAILS

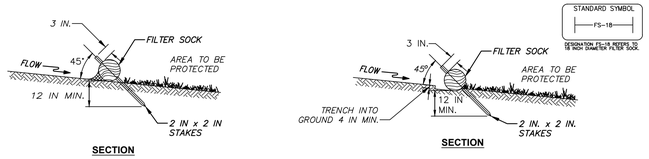
PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RS
DRAWN BY BMW
PROJECT MGR. RS

DIVISION CHIEF
DATE
FILE

SHEET 74 OF 75

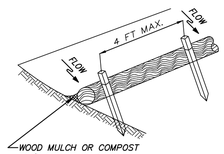
$FILE$
$DATE$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
4	D.C.		75	75

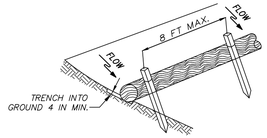


SECTION

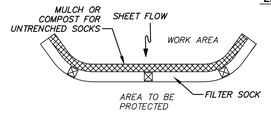
SECTION



UNTRENCHED INSTALLATION



*ENTRENCHED INSTALLATION



PLAN VIEW

*NOTE:
- THIS APPLICATION MAY NOT BE USED WITH SOCKS SMALLER THAN 12 IN.

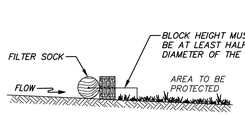
DATE	APPR		
REVISED			
ISSUED:			
		REFERENCE	

FILTER SOCK - 1

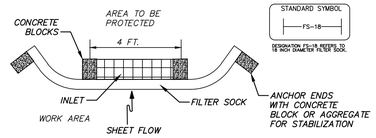
DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 303.1

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS



HARD SURFACE INSTALLATION SECTION



HARD - SURFACE INSTALLATION PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. BEFORE INSTALLING, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN 1–INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF THE FILTER SOCK.
2. FILL SOCK UNIFORMLY WITH COMPOST OR ALTERNATE FILTER MEDIA TO DESIRED LENGTH, WITH ENOUGH MATERIAL THAT THE SOCKS DO NOT DEFORM.
3. PLACE SOCKS ALONG CONTOURS, WITH THE ENDS TURNED UPSLOPE AT 30 TO 45 DEGREES FOR A LENGTH OF AT LEAST 5 FEET TO PREVENT RUNOFF BYPASS.
4. FOR UNTRENCHED INSTALLATION, BACKFILL MULCH OR COMPOST ON THE UPSTREAM SIDE OF THE SOCK AND TAMP TO PREVENT UNDERCUTTING AND PIPING.
5. ANCHORING MUST CONFORM TO THE FOLLOWING LIST: (a) MINIMUM 2–INCH SQUARE CROSS SECTION HARDWOOD; (b) DRIVEN AT LEAST 12 INCHES BELOW GRADE, OR 8 INCHES IF IN DENSE CLAY SOILS; (c) PROTRUDE ABOVE FILTER SOCKS AT LEAST 3 INCHES; (d) DRIVEN IN AT 45–DEGREE ANGLE UPSLOPE; (e) SPACED AT NO MORE THAN 4 FEET APART, OR 8 FEET APART IF THE FILTER SOCK IS ENTRENCHED 4 INCHES INTO THE GROUND.
6. DO NOT USE ENTRENCHED INSTALLATION ON FILTER SOCKS SMALLER THAN 12 INCHES IN DIAMETER.
7. FOR HARD SURFACE INSTALLATION, SUCH AS ON PAVEMENT, ANCHORING MAY BE NECESSARY WHERE STRAIGHT SECTIONS EXCEED 4 FEET. SEE DETAIL ABOVE, AND GREATER INSTRUCTION IN THE FILTER SOCK SPECIFICATION. WHEN NO ANCHORING IS USED, THE PRACTICE MUST BE CHECKED DAILY, REGARDLESS OF WHETHER RAINFALL OCCURS. ANCHORED INSTALLATION IS ALWAYS PREFERRED TO NON–ANCHORED INSTALLATION, IF POSSIBLE.
8. FOR AT–GRADE INLET PROTECTION, FILTER SOCKS MUST COMPLETELY ENCLOSE THE DRAIN. IF USED AS CURB INLET PROTECTION, THE EFFECTIVE HEIGHT OF THE FILTER SOCK MUST NOT BE HIGHER THAN THE HEIGHT OF THE CURB; USE 8–INCH DIAMETER FILTER SOCK FOR STANDARD HIGHWAY APPLICATIONS.
9. IF MULTIPLE SECTIONS OF FILTER SOCK ARE NEEDED FOR A CONTINUOUS RUN, OVERLAP ENDS OF SEPARATE SECTIONS A MINIMUM OF 2 FEET AND STAKE ENDS.
10. TO REACH TALLER HEIGHTS, IT IS POSSIBLE TO STACK FILTER SOCKS. SEE SPECIFICATION FOR MORE DETAIL.
11. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF HALF THE EXPOSED HEIGHT OF SOCK AND REPLACE SOCK. REPLACE FILTER SOCK IF TORN. REINSTALL FILTER SOCK IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER SOCKS.
12. FOR VEGETATED, PERMANENT OR SEMI–PERMANENT INSTALLATIONS, MAINTAIN THE PLANTS AS IS APPROPRIATE FOR THE SPECIES USED.

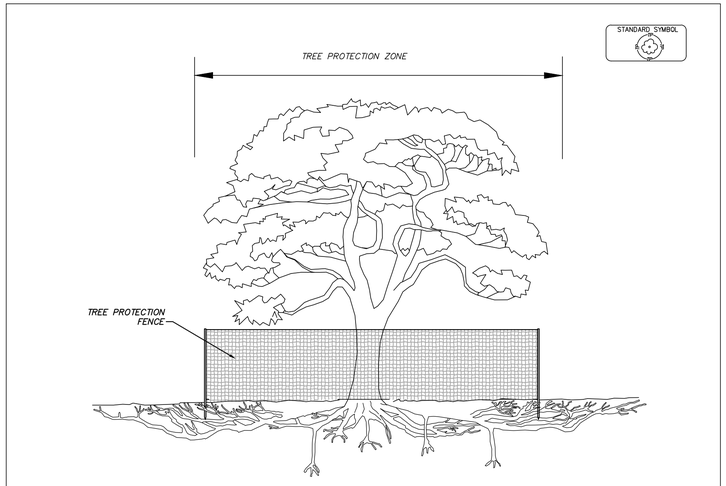
DATE	APPR		
REVISED			
ISSUED:			
		REFERENCE	

FILTER SOCK - 2

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 303.2

SOURCE: 2011 MARYLAND STANDARDS & SPECIFICATIONS



SECTION VIEW

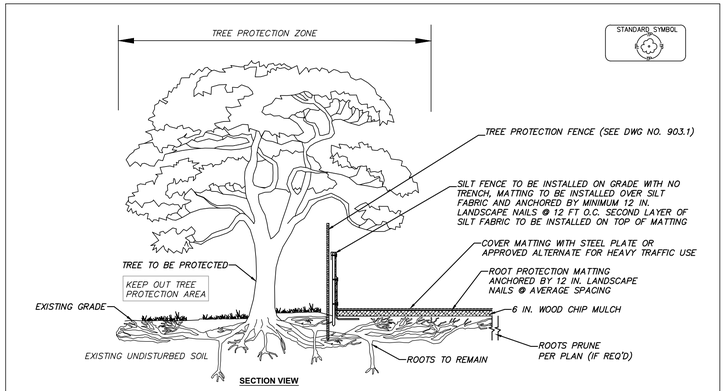
DATE	APPR		
REVISED			
ISSUED:			
		REFERENCE	

TREE PROTECTION

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 903.1

SOURCE: URBAN TREE FOUNDATION 2014



SECTION VIEW

CONSTRUCTION SPECIFICATIONS

1. MATTING MATERIAL MUST BE DOUBLE SIDED GEOCOMPOSITE, GEONET CORE WITH NON–WOVEN COVERING (SUCH AS TENSAR ROADRAIN RD7) OR APPROVED EQUIVALENT.
2. INSTALL ROOT PROTECTION MATTING BY A CERTIFIED ARBORIST.
3. TO BE USED FOR DESIGNATED TEMPORARY CONSTRUCTION ACCESS AND STOCKPILE AREAS.
4. PLACE MATTING ON 6 IN. WOOD CHIP MULCH UNLESS OTHERWISE DIRECTED.
5. FOR HEAVY TRAFFIC AREAS, COVER MATTING WITH STEEL PLATES.

DATE	APPR		
REVISED			
ISSUED:			
		REFERENCE	

TREE ROOT PROTECTION WITH SILT FENCE

DISTRICT OF COLUMBIA DEPARTMENT OF ENERGY & ENVIRONMENT

DWG. NO 903.2

SOURCE: URBAN TREE FOUNDATION 2014

30% DESIGN SUBMITTAL
NOT FOR CONSTRUCTION

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: OCTOBER 2022 | SCALE: **AS NOTED** | ES-08

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

METROPOLITAN BRANCH TRAIL DESIGN

PROJECT ENG. BMW
DESIGNED BY BMW
CHECKED BY RB
DRAWN BY BMW
PROJECT MGR. RB

EROSION & SEDIMENT CONTROL PLAN DETAILS

DIVISION CHIEF
DATE
FILE
SHEET 75 OF 75

$FILE$
$DATE$