SHEET NO.	TOTAL SHEETS
01	109

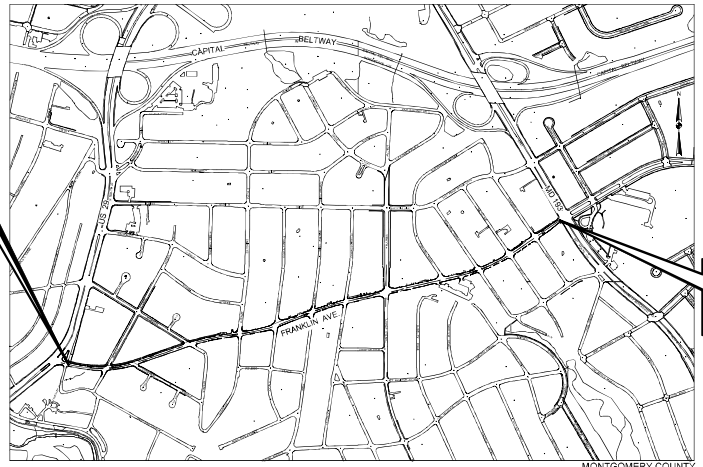
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

FRANKLIN AVENUE SIDEWALK
FROM US 29 TO MD 193

CIP PROJECT NO. 501734

INDEX OF SHEETS

LIMIT OF WORK
CONTR. NO. 000000
FRANKLIN AVE.
STA. 0+85.40



LIMIT OF WORK
CONTR. NO. 000000
FRANKLIN AVE.
STA. 46+09.40

VICINITY MAP
SCALE: 1" = 1,000'

MONTGOMERY COUNTY
LENGTH OF PROJECT
FRANKLIN AVE. = 0.86 MILES

THE FOLLOWING MONTGOMERY COUNTY STANDARDS ARE REQUIRED FOR THIS PROJECT:
MC-100.01 - COMBINATION CONCRETE CURB AND GUTTER - TYPE A
MC-101.01 - COMBINATION CONCRETE CURB AND GUTTER - TYPE C
MC-102.01 - DEPRESSED CURB ENTRANCE
MC-110.01 - RESIDENTIAL SIDEWALK
MC-112.01 - RESIDENTIAL SIDEWALK RAMP
MC-301.01 - RESIDENTIAL DRIVEWAY
MC-301.04 - RESIDENTIAL DRIVEWAY LIMITED WIDTH
MC-301.05 - RESIDENTIAL DRIVEWAY WITH CURB RADIUS
MC-501.01 - A INLET
MC-502.01 - B INLET
MC-502.01 - REVERSE B INLET
MC-510.01 - "A" MANHOLE
MC-515.01 - "B" MANHOLE
THE MOST CURRENT VERSION OF THESE STANDARDS CAN BE ACCESSED AT:
https://www.montgomerycountymd.gov/dot-dte/common/standards.html

THE FOLLOWING MARYLAND STATE HIGHWAY DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARDS (CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL) ARE REQUIRED FOR THIS PROJECT:
MD-354.01 - STANDARD TYPE C ENDWALL
MD-374.08 - TRIPLE WR INLET
MD-374.51 - PRECAST OR CAST IN PLACE SQUARE AND RECTANGULAR COG INLETS 5', 10', 15' & 20'
MD-374.68 - PRECAST OR CAST-IN-PLACE COG / GOS OPENING FOR 8" CURB 5' OR 10' ONLY
MD-378.11 - PRECAST STANDARD SINGLE OR DOUBLE OPENING TYPE K INLET OPEN-END GRATE
MD-578.01 - REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES
MD-830.01 - STANDARD ENTRANCE
MD-640.02 - STANDARD CURB OPENING DETAILS
MD-655.11 - SIDEWALK RAMP PERPENDICULAR
MD-655-12 - SIDEWALK RAMP PARALLEL
MD-655-40 - DETECTABLE WARNING SURFACES
FOR ALL SHA STANDARDS REFERRED TO ON THE PLANS, THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT:
http://apps.roads.maryland.gov/businesswithsha/bizStdsSpecs/desManualStdPub/publicationsonline/ohd/bookstd/index.asp
ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARD AT THE TIME OF CONSTRUCTION.

TREE CANOPY REQUIRENENTS TABLE

To be completed by the consultant and placed on the first sheet of the Sediment Control / Stormwater Management plan set for all projects.

Exempt: Yes ☐ No ☒ If exempt under Section 5-5 of the Code, please check the applicable exemption category below.

Total Property Area	Total Disturbed Area
NA / ROW square feet	87,120 square feet

Shade Trees Required	Shade Trees Proposed to be Planted
33	0 - entire project under overhead lines

Fee In Lieu	
(Trees Required – Trees Planted) x $250	$ 8,250

Required Number of Shade Trees

Area (sq. ft.) of the Limits of Disturbance FROM	TO	Number of Shade Trees Required
1	6,000	3
6,001	8,000	6
8,001	12,000	9
12,001	14,000	12
14,001	40,000	15

If the square footage of the limits of disturbance is more than 40,000, then the number of shade trees required must be calculated using the following formula:

(Number of Square Feet in Limits of Disturbance ÷ 40,000) × 15

EXEMPTION CATEGORIES:

☐ 55-5(a) any activity that is subject to Article II of Chapter 22A;
☐ 55-5(b) any commercial logging or timber harvesting operation with an approved exemption from Article II of Chapter 22A;
☐ 55-5(f) any activity conducted by the County Parks Department;
☐ 55-5(g) routine or emergency maintenance of an existing stormwater management facility, including an existing access road, if the person performing the maintenance has obtained all required permits;
☐ 55-5(h) any stream restoration project if the person performing the work has obtained all necessary permits;
☐ 55-5(i) cutting or clearing any tree to comply with applicable provisions of any federal, state, or local law governing safety of dams;
☐ OTHER: Specify per Section 5-5 of the Code.

OWNER'S / DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION, AND OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

3/28/2023
DATE:

MARICELA CORDOVA
ACTING DIVISION CHIEF, DIVISION OF TRANSPORTATION ENGINEERING

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL", MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES EXECUTIVE REGULATIONS 5-90, 7-02AM AND 36-90, AND MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION "STORM DRAIN DESIGN CRITERIA" DATED AUGUST 1988.

03-02-2023
DATE:

PARSHOTTAM N. SHELADIA, P.E.
SHELADIA ASSOCIATES, INC.

CERTIFICATION OF THE QUANTITIES

I/WE HEREBY CERTIFY THAT THE ESTIMATED TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO X,XXX CUBIC YARDS OF EXCAVATION, XXX CUBIC YARDS OF FILL AND THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE XXX,XXX SQUARE FEET OR 3.33 ACRES.

03-02-2023
DATE:

PARSHOTTAM N. SHELADIA, P.E.
MD. REGISTRATION NO. 8799

PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 8799, EXPIRATION DATE: 10-04-2024.

ISSUED FOR CONSTRUCTION

100% SUBMITTAL
MARCH, 2023

NO.	REVISION	DATE	BY

SHELADIA Engineers, Architects Development Consultants
14824 Shady Grove Road, Rockville, MD. 20850
Phone: 301-990-9339 Fax 301-990-7174
www.sheladia.com

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL: March 27, 2023
Chief, Design Section — Date

APPROVED: March 28, 2023
Chief, Division of Transportation Engineering — Date

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

TITLE SHEET

SCALE: AS SHOWN

GT-01

Project No. 1501 — 01 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\1-GT-01.dwg
DATE: Mar 17, 2023 - 10:47am

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS OF THE MARYLAND STATE HIGHWAY ADMINISTRATION, MONTGOMERY COUNTY, AND THE WASHINGTON SUBURBAN SANITARY COMMISSION.
2. TYPES OF STORM DRAIN STRUCTURES REFER TO THE "DESIGN STANDARDS" OF MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION, UNLESS OTHERWISE NOTED.
3. WHEN THE DROP ON THE MAIN LINE THROUGH A STORM DRAIN STRUCTURE CAN BE ACCOMMODATED BY AN INVERT SLOPE OF 1.5:1 OR FLATTER, A ROUNDED CHANNEL LINED WITH SEWER BRICK ON EDGE SHALL BE BUILT TO THE CROWN OF THE PIPES. WHEN THE INVERT SLOPES WOULD BE GREATER THAN 1.5:1, A SPECIAL INVERT SHALL BE CONSTRUCTED AS NOTED.
4. ALL STORM DRAIN PIPE SHALL BE INSTALLED WITH CLASS "C" BEDDING UNLESS OTHERWISE SPECIFIED.
5. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STORM DRAIN STRUCTURES, WHEN NECESSARY TO MEET EXISTING CONDITIONS, AS APPROVED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR.
6. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE LINES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF TRENCHING. IF CLEARANCES ARE LESS THAN SHOWN OR SIX (6) INCHES, WHICHEVER IS LESS, CONTACT MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR AND THE APPROPRIATE UTILITY OWNER BEFORE PROCEEDING WITH CONSTRUCTION.
7. REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
8. CALL "MISS UTILITY" AT 1-800-257-7777 FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING EXCAVATION TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES.
9. CLEARING IS TO BE LIMITED TO THE "LIMIT OF GRADING" AS SHOWN ON THE PLANS.
10. ALL GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.
11. ALL DISTURBED AREAS TO BE SEEDED AND MULCHED UNLESS OTHERWISE NOTED.
12. THE CONTRACTOR SHALL OBTAIN A ROADSIDE TREE PERMIT FOR ANY MAINTENANCE, TREATMENT, PLANTING, REMOVAL, OR ROOT CUTTING ON TREES WITHIN THE PUBLIC RIGHT OF WAY. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES, MARYLAND FOREST, PARK AND WILDLIFE SERVICE, TELEPHONE 301-854-6060.
13. THE CONTRACTOR SHALL CONSTRUCT ALL DRIVEWAY TIE-INS IN-KIND TO THE LIMIT SHOWN ON THE PLANS.

ABBREVIATIONS

AASHTO — American Association of State Highway Transportation Officials
ADT — Average Daily Traffic
AHD — Ahead
APPROX. — Approximate
℄ or B/L — Baseline
BK — Back/ Book
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
C.B.R. — California Bearing Ratio
℄ or C/L — Centerline
CL. — Class
CLF — Chainlink Fence
CMP — Corrugated Metal Pipe
C.O. — Cleanout
COMB. — Combination
CONC. — Concrete
CONSTR. — Construction
COR. — Corner
CORR. — Correction
CPP-S — Corrugated Polyethylene Pipe - Type 'S'
CSP — Corrugated Steel Pipe - Aluminized Type 2
CSPA — Corrugated Steel Pipe Arch - Aluminized Type 2
C — Cut
DC — Degree of Curve
D.H.V. — Desigbn 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 — Fill
FL — Flowline
F.B.D. — Flat bottom Ditch
F.H. — Fire Hydrant
FWD. — Forward
G. — Gas
G.V. — Gas Valve
H.B. — Handbox
HDPE — High Density Polyethylene
HDWL. — Headwall
HERCP — Horizontal Elliptical Reinforced Concrete Pipe
HP — High point
IN — Inch
I.S.T. — Inlet Sediment Trap
INV. — Invert
J.V. — 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
M.C. — Moisture Content
MAX. — Maximum
M.D.D. — Maximum Dry Content
MOD. — Modified
MIN. — Minimum
N — North
NB — Northbound
NE — Northeast
N.P. — Non-Plastic
O.C. — On Center
OHE — Overhead Electric
O.M. — Optimum Moisture
PAVT. — Pavement
P.C. — Point of Curvature
P.C.C. — 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. — Plasticity Index
PI — Point of Intersection
POC — Point On Curve
POT — Point of Tangent
PPWP — Polyvinyl Chloride Profile Wall Pipe
PROP — Proposed
PRC — Point of Reverse Curve
PT — Point
P.T. — Point of Tangency
P.V.C. — Point of Vertical Curve
PVC — Polyvinyl Chloride
P.V.I. — Point of Vertical Intersection
P.V.R.C. — Point of Vertical Reverse Curve
P.V.T. — Point of Vertical Tangency
R — Radius
R.F. — Rock Fragments
RT — Right
RW or R/W — Right of Way
RCP — Reinforced Concrete Pipe
RCPP — Reinforced Concrete Pressure
R.Q.D. — Rock Quality Designation
R.M. — Rootman
S — South
SAN — Sanitary Sewer
SB or S/B — Southbound
S.D. — Storm Drain
S.D.D. — Surface Drain
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
T.S. — Topsoil
TYP. — Typical
U.D. — Underdrain
U.G. — Underground
U.P. — Utility Pole
USDA — United States Department of Agriculture
VCL — Vertical Clearance
V.C.L. — Vertical Curve Lenght
W — Water
W — West
WB — Westbound
WB — Wetland Buffer
W.M. — Water Meter
W.S. — Wrapped Steel
WUS — Water of the United States
W.V. — Water Valve

CONVENTIONAL SYMBOLS

EXISTING FEATURES

RIGHT OF WAY LINE(ROW)
PROPERTY LINE
EDGE OF ROADWAY PAVING
CURB OR CURB AND GUTTER
EXISTING GROUND CONTOURS (5')
EXISTING GROUND CONTOURS (1')
WOOD FENCE
WIRE FENCE
FIRE HYDRANT
EDGE OF WOODED AREAS
TREE (FREE STANDING)
SIGN
MAILBOX
UTILITY POLE
GAS VALVE
WATER VALVE
STORM DRAIN
SANITARY
WATER
GAS

PROPOSED FEATURES

℄ CONSTRUCTION
CURB & GUTTER
TRAVERSE POINT
DRIVEWAY TIE-IN
PAVEMENT REMOVAL
SIDEWALK
A.D.A. RAMP W/ DETECTABLE WARNING SURFACE
APPROXIMATE LIMITS OF CUT AND/OR FILL
LIMIT OF DISTURBANCE
STORM DRAIN

SHELADIA Engineers, Architects Development Consultants
10870 Shady Grove Road, Rockville, MD, 20850
Phone: 301-990-9000 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

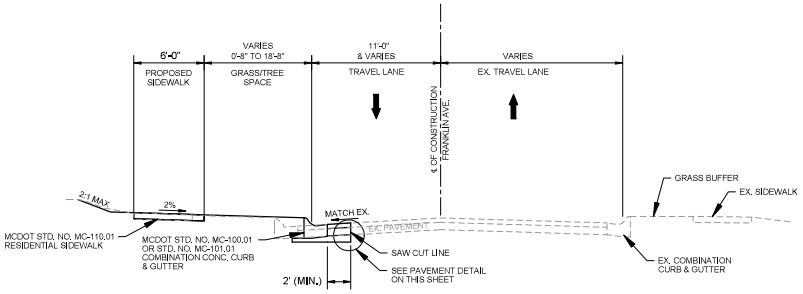
GENERAL NOTES, ABBREVIATION AND CONVENTIONAL SYMBOLS

SCALE : N/A

GN - 01

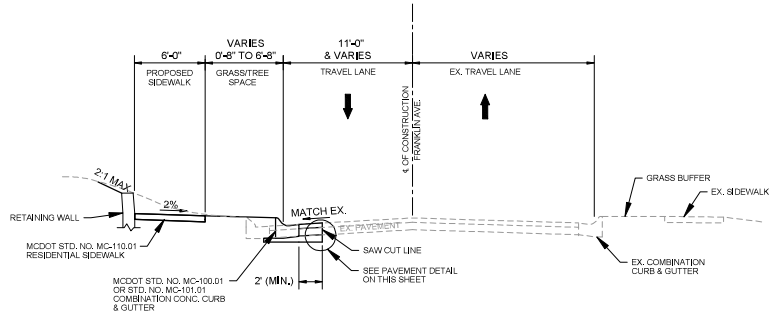
Project No.: TBD 02 of 109

SHEET NO.	TOTAL SHEETS
03	109



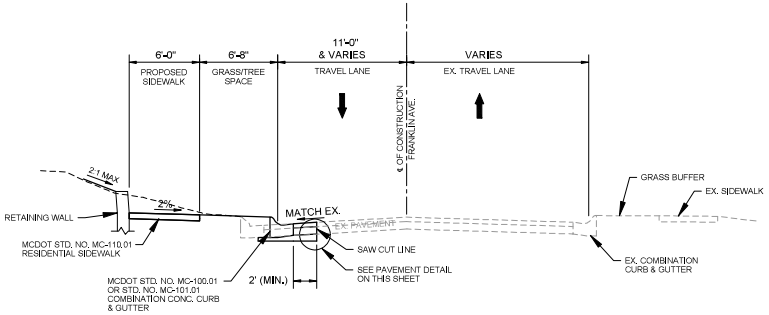
TYPICAL SECTION - SIDEWALK WITH DIRECT TIE-IN

STA. 0+85.40 TO STA. 16+82.70
STA. 19+45.71 TO STA. 39+18.64
STA. 40+69.72 TO STA. 46+09.40
NOT TO SCALE



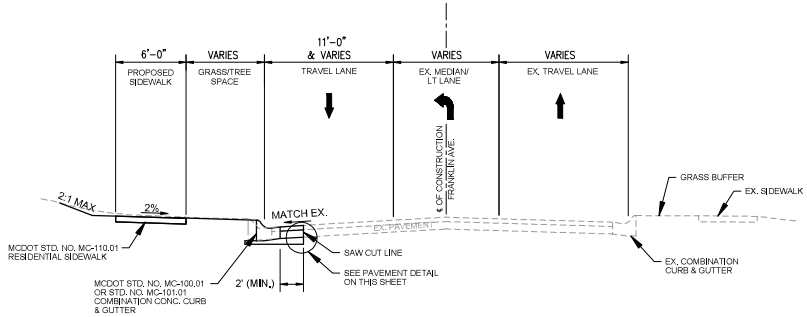
TYPICAL SECTION - ADJACENT SIDEWALK WITH RETAINING WALL

STA. 16+82.70 TO STA. 19+45.71
NOT TO SCALE



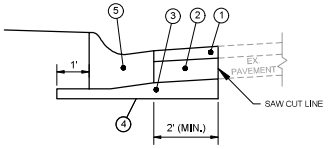
TYPICAL SECTION - ADJACENT SIDEWALK AND RETAINING WALL

STA. 39+18.64 TO STA. 40+69.72
NOT TO SCALE



TYPICAL SECTION - MEDIAN / LEFT TURNING LANE

AT INTERSECTIONS
NOT TO SCALE



FULL DEPTH PAVING SECTION

NOT TO SCALE

LEGEND

1. 3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 - 1 ½" LAYERS
2. 5" BITUMINOUS CONCRETE BASE COURSE
3. 6" GRADED AGGREGATE BASE COURSE
4. COMPACTED SUBBASE
5. MCDOT STANDARD NO. MC-100.01 OR STANDARD NO. MC-101.01 COMBINATION CONCRETE CURB AND GUTTER

SHELADIA Engineers, Architects Development Consultants
14870 Shady Grove Road, Rockville, MD, 20850
Phone: 301-990-3333 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

TYPICAL SECTIONS

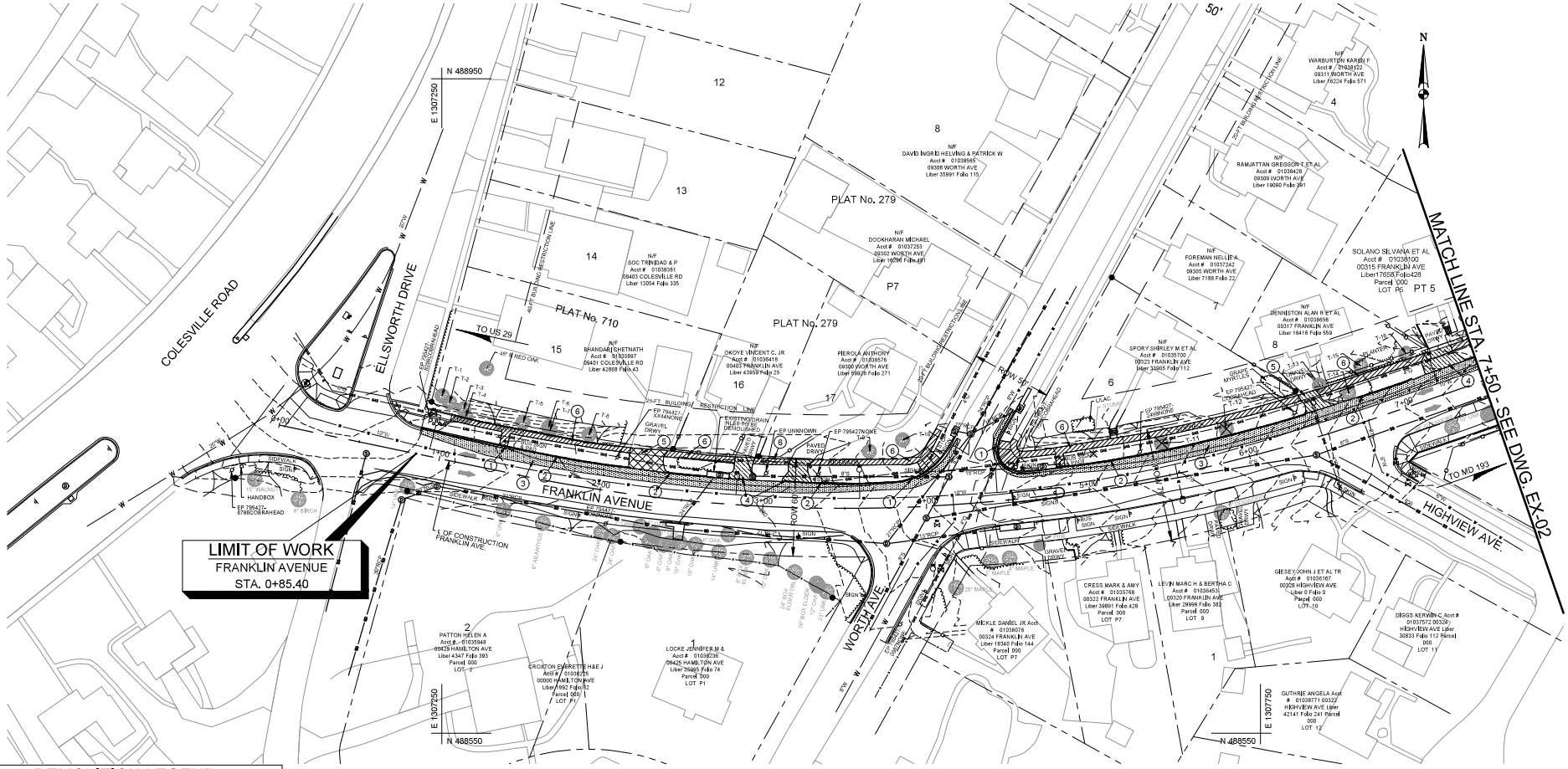
SCALE : AS SHOWN

TS-01

Project No.: TBD 03 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\3-TS-01.dwg
DATE: Mar 01, 2023 - 5:08pm

SHEET NO.	TOTAL SHEETS
04	109



DEMOLITION LEGEND

SYMBOL	DESCRIPTION	NOTES
	REMOVE EXISTING CONCRETE CURB AND GUTTER AT THE NEAREST JOINT	1
	REMOVE EXISTING ASPHALT CURB AT THE NEAREST JOINT	2
	SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT	3
	SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT TO NEAREST JOINT	4
	REMOVE EXISTING GRAVEL	5
	SAWCUT AND REMOVE EXISTING CONCRETE SIDEWALK TO NEAREST JOINT	6
	SAWCUT AND REMOVE EXISTING WALL	7
	REMOVE EXISTING FENCE AND TREE LINE	8
	EXISTING TREE (TO BE REMOVED)	

REFERENCE NOTE:

1. FOR EXISTING TREE INFORMATION ALONG NORTH SIDE OF FRANKLIN AVE., SEE DWG. EX-06.

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
15825 Shady Grove Road, Rockville, MD, 20850
Phone: 301-330-3000 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK
EXISTING CONDITION AND DEMOLITION PLAN
STA. 0+00 TO STA. 7+50

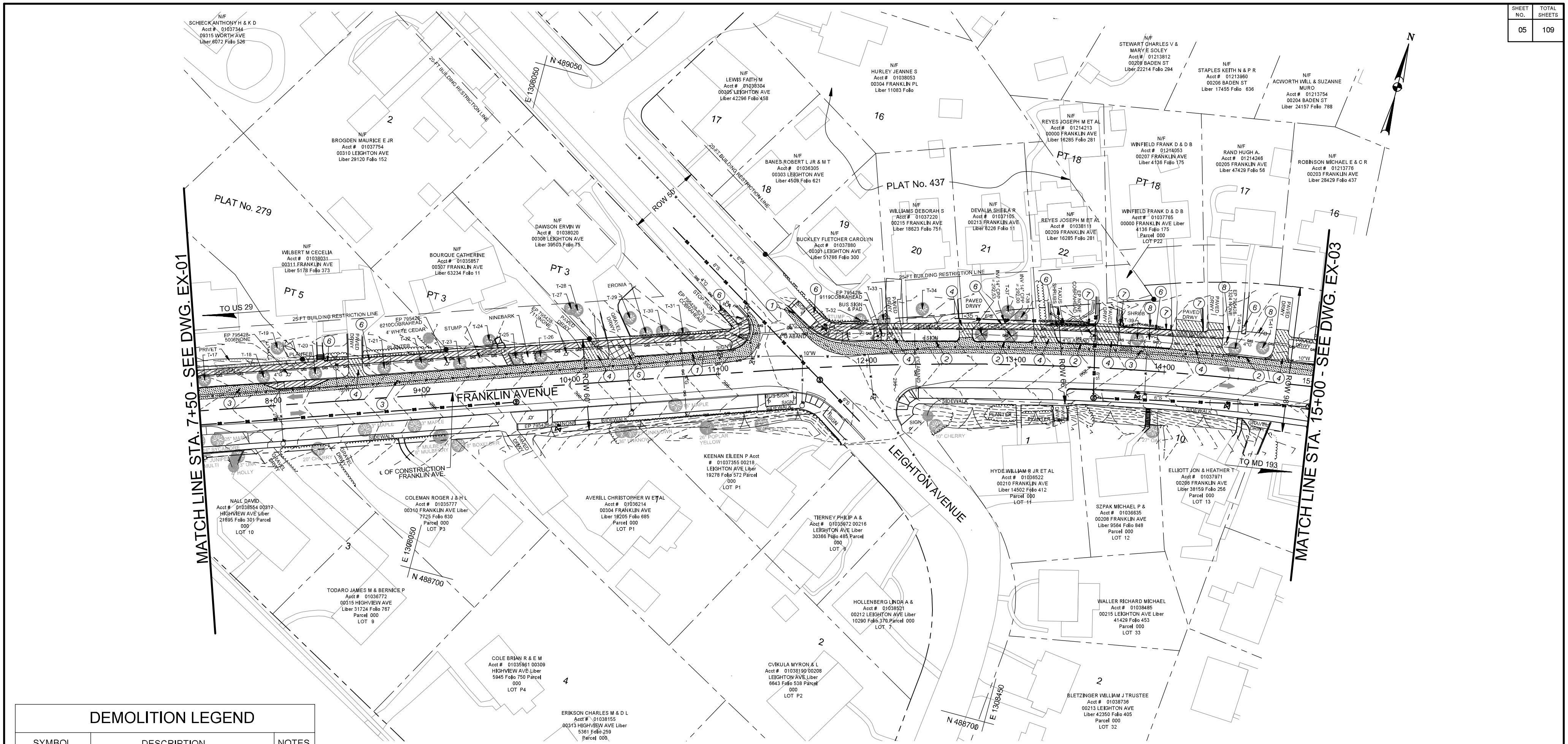
SCALE: AS SHOWN

EX-01

Project No.: TBD 04 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\4-9-EX-04-09.dwg
DATE: Mar 02, 2023 - 10:20am

SHEET NO.	TOTAL SHEETS
05	109



DEMOLITION LEGEND

SYMBOL	DESCRIPTION	NOTES
▭	REMOVE EXISTING CONCRETE CURB AND GUTTER AT THE NEAREST JOINT	①
⊏ ═ ═ ═	REMOVE EXISTING ASPHALT CURB AT THE NEAREST JOINT	②
░	SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT	③
▧	SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT TO NEAREST JOINT	④
▩	REMOVE EXISTING GRAVEL	⑤
▨	SAWCUT AND REMOVE EXISTING CONCRETE SIDEWALK TO NEAREST JOINT	⑥
▧	SAWCUT AND REMOVE EXISTING WALL	⑦
-x-x-x-	REMOVE EXISTING FENCE AND TREE LINE	⑧
⊗	EXISTING TREE (TO BE REMOVED)	

REFERENCE NOTE:

1. FOR EXISTING TREE INFORMATION ALONG NORTH SIDE OF FRANKLIN AVE., SEE DWG. EX-06.

0 30 60
SCALE: 1" = 30'

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

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section Date

APPROVED

Chief, Division of Transportation Engineering Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

EXISTING CONDITION AND DEMOLITION PLAN
STA. 7+50 TO STA. 15+00

SCALE: AS SHOWN

EX-02

Project No.: TBD 05 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\4-9-EX-04-09.dwg
DATE: Mar 02, 2023 - 10:24am

SHEET NO.	TOTAL SHEETS
06	109

DEMOLITION LEGEND

SYMBOL	DESCRIPTION	NOTES
	REMOVE EXISTING CONCRETE CURB AND GUTTER AT THE NEAREST JOINT	1
	REMOVE EXISTING ASPHALT CURB AT THE NEAREST JOINT	2
	SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT	3
	SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT TO NEAREST JOINT	4
	REMOVE EXISTING GRAVEL	5
	SAWCUT AND REMOVE EXISTING CONCRETE SIDEWALK TO NEAREST JOINT	6
	SAWCUT AND REMOVE EXISTING WALL	7
	REMOVE EXISTING FENCE AND TREE LINE	8
	EXISTING TREE (TO BE REMOVED)	

REFERENCE NOTE:

1. FOR EXISTING TREE INFORMATION ALONG NORTH SIDE OF FRANKLIN AVE., SEE DWG. EX-06.

0 30 60
SCALE 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18825 Study Grove Road, Rockville, MD, 20850
Phone: 301-330-3308 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK
EXISTING CONDITION AND DEMOLITION PLAN
STA. 15+00 TO STA. 22+00

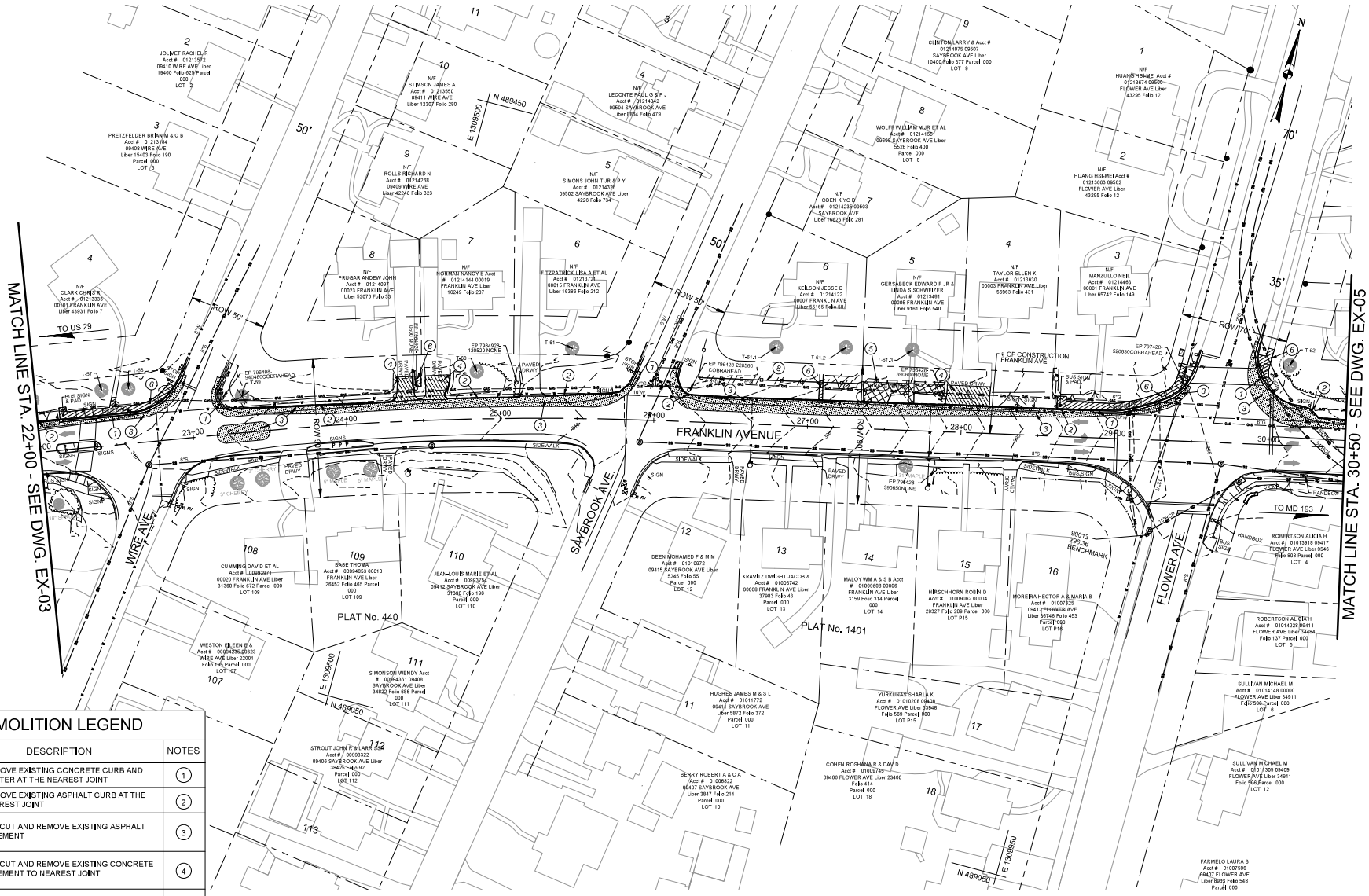
SCALE : AS SHOWN

EX-03

Project No.: TBD 06 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\4-9-EX-04-09.dwg
DATE: Mar 02, 2023 - 10:24am

SHEET NO.	TOTAL SHEETS
07	109



DEMOLITION LEGEND

SYMBOL	DESCRIPTION	NOTES
	REMOVE EXISTING CONCRETE CURB AND GUTTER AT THE NEAREST JOINT	1
	REMOVE EXISTING ASPHALT CURB AT THE NEAREST JOINT	2
	SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT	3
	SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT TO NEAREST JOINT	4
	REMOVE EXISTING GRAVEL	5
	SAWCUT AND REMOVE EXISTING CONCRETE SIDEWALK TO NEAREST JOINT	6
	SAWCUT AND REMOVE EXISTING WALL	7
	REMOVE EXISTING FENCE AND TREE LINE	8
	EXISTING TREE (TO BE REMOVED)	

REFERENCE NOTE:

1. FOR EXISTING TREE INFORMATION ALONG NORTH SIDE OF FRANKLIN AVE., SEE DWG. EX-06.

0 30 60
SCALE: 1" = 30'

Engineers, Architects Development Consultants
SHELADIA ASSOCIATES, INC.
15825 Shady Grove Road, Rockville, MD, 20850
Phone: 301-330-3000 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK
EXISTING CONDITION AND DEMOLITION PLAN
STA. 22+00 TO STA. 30+50

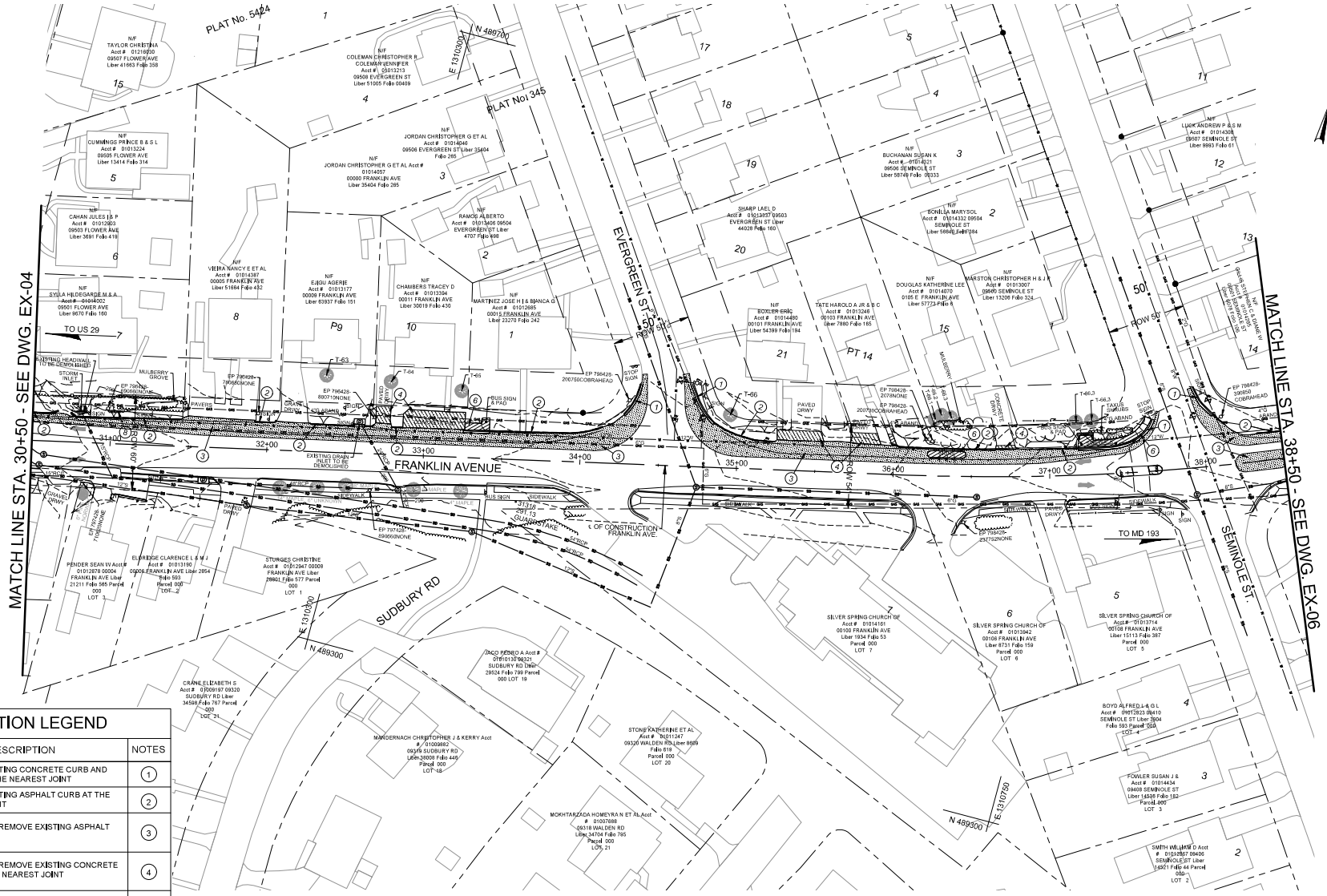
SCALE: AS SHOWN

EX-04

Project No.: TBD 07 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\4-9-EX-04-09.dwg
DATE: Mar 02, 2023 - 10:25am

SHEET NO.	TOTAL SHEETS
08	109



DEMOLITION LEGEND

SYMBOL	DESCRIPTION	NOTES
	REMOVE EXISTING CONCRETE CURB AND GUTTER AT THE NEAREST JOINT	1
	REMOVE EXISTING ASPHALT CURB AT THE NEAREST JOINT	2
	SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT	3
	SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT TO NEAREST JOINT	4
	REMOVE EXISTING GRAVEL	5
	SAWCUT AND REMOVE EXISTING CONCRETE SIDEWALK TO NEAREST JOINT	6
	SAWCUT AND REMOVE EXISTING WALL	7
	REMOVE EXISTING FENCE AND TREE LINE	8
	EXISTING TREE (TO BE REMOVED)	

REFERENCE NOTE:

1. FOR EXISTING TREE INFORMATION ALONG NORTH SIDE OF FRANKLIN AVE., SEE DWG. EX-06.

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18825 Study Grove Road, Rockville, MD, 20850
Phone: 301-330-3808 Fax: 301-445-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK
EXISTING CONDITION AND DEMOLITION PLAN
STA. 30+50 TO STA. 38+50

SCALE: AS SHOWN

EX-05

Project No.: TBD 08 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\4-9-EX-04-09.dwg
DATE: Mar 02, 2023 - 10:26am

SHEET NO.	TOTAL SHEETS
09	109

EXISTING TREE INFORMATION							
SYMBOL/NO.	DESCRIPTION	SYMBOL/NO.	DESCRIPTION	SYMBOL/NO.	DESCRIPTION	SYMBOL/NO.	DESCRIPTION
T- 1	18" REDOAK	T- 21	3" KOUSA DOGWOOD	T- 41	18" RED MAPLE	T- 51	1/4" CHERRY
T- 2	DEAD	T- 22	7" AMUR MAPLE	T- 42	4" EVERGREEN SHRUB	T- 52	34" SOUTHER RED OAK
T- 3	6' RED OAK	T- 23	1-2" SAND PALUM	T- 43	4" CEDAR	T- 53	42" SYCAMORE
T- 4	3' WHITE MULBERRY	T- 24	15" CHERRY	T- 44	8" CEDAR	T- 54	10" BLUE SPRUCE
T- 5	2' SWEET CHEERY	T- 25	4" KOUSA DOGWOOD	T- 45	46" SILVER MAPLE	T- 55	10" BLUE SPRUCE
T- 6	9' RED OAK	T- 26	1-2" SAND PALUM	T- 46	18" SILVER MAPLE	T- 56	11" BRADFORD PEAR
T- 7	DEAD	T- 27	5-6" AMERICAN ELM	T- 47	30" SILVER MAPLE	T- 56.1	9" MULLBERRY
T- 8	21" REDOAK	T- 28	4-6" BLACK CHERRY	T- 48	28" SILVER MAPLE	T- 56.2	9" REDBUD
T- 9	14" AMERICAN ELM	T- 29	48" TULIP POPLAR	T- 49	24" SILVER MAPLE	T- 56.3	6" MULLBERRY
T- 10	11" JAPANESE CHERRY	T- 30	DEAD	T- 50	20" SOUTHER MAGNOLA	T- 56.4	8" MULLBERRY
T- 11	9' REDBUD	T- 31	4" AMERICAN DOGWOOD	T- 51	12" DOGWOOD	T- 56.5	3" REDBUD
T- 12	9' REDBUD	T- 32	11" AMERICAN ELM	T- 52	1" APPLE	T- 57	2" MULLBERRY
T- 13	9' HOLLY	T- 33	14" AMERICAN HOLLY	T- 53	34" RED OAK	T- 58	10" DOGWOOD
T- 14	4-5" CRAPE MYRTLE	T- 34	7" DOGWOOD	T- 54	13" HACKBERRY	T- 69	20" JAPANESE CHERRY
T- 15	6' AMERICAN DOGWOOD	T- 35	15" SAWTOOTH OAK	T- 55	24/22" MUULBERRY	T- 70	27" SOUTHER RED OAK
T- 16	2-4" CRAPE MYRTLE	T- 36	16" SAWTOOTH OAK	T- 56	2-4" CRAPE MYRTLE	T- 71	2" RED MAPLE
T- 17	9' AMUR MAPLE	T- 37	15" HOLLY	T- 57	7" CRAPE MYRTLE	T- 72	9" KOUSA DOGWOOD
T- 18	4' SERVICEBERRY	T- 38	11" X 2 HOLLY	T- 58	2-4" CRAPE MYRTLE	T- 73	13" RED CEDAR
T- 19	4' VIBURNUM	T- 39	2-4" CRAPE MYRTLE	T- 59	16" EASTERN RED CEDAR	T- 74	12" WHITE PINE
T- 20	4' REDBUD	T- 40	16" RED MAPLE	T- 60	8" DOGWOOD	T- 75	4" REDBUD

DEMOLITION LEGEND

SYMBOL	DESCRIPTION	NOTES
	REMOVE EXISTING CONCRETE CURB AND GUTTER AT THE NEAREST JOINT	1
	REMOVE EXISTING ASPHALT CURB AT THE NEAREST JOINT	2
	SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT	3
	SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT TO NEAREST JOINT	4
	REMOVE EXISTING GRAVEL	5
	SAWCUT AND REMOVE EXISTING CONCRETE SIDEWALK TO NEAREST JOINT	6
	SAWCUT AND REMOVE EXISTING WALL	7
	REMOVE EXISTING FENCE AND TREE LINE	8
	EXISTING TREE (TO BE REMOVED)	

REFERENCE NOTE:

1. FOR EXISTING TREE INFORMATION ALONG NORTH SIDE OF FRANKLIN AVE., SEE TABLE ON THIS SHEET.

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18005 Brady Grove Road, Rockville, MD, 20850
Phone: 301-330-3008 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

EXISTING CONDITION AND DEMOLITION PLAN

STA. 38+50 TO STA. 46+25

SCALE : AS SHOWN

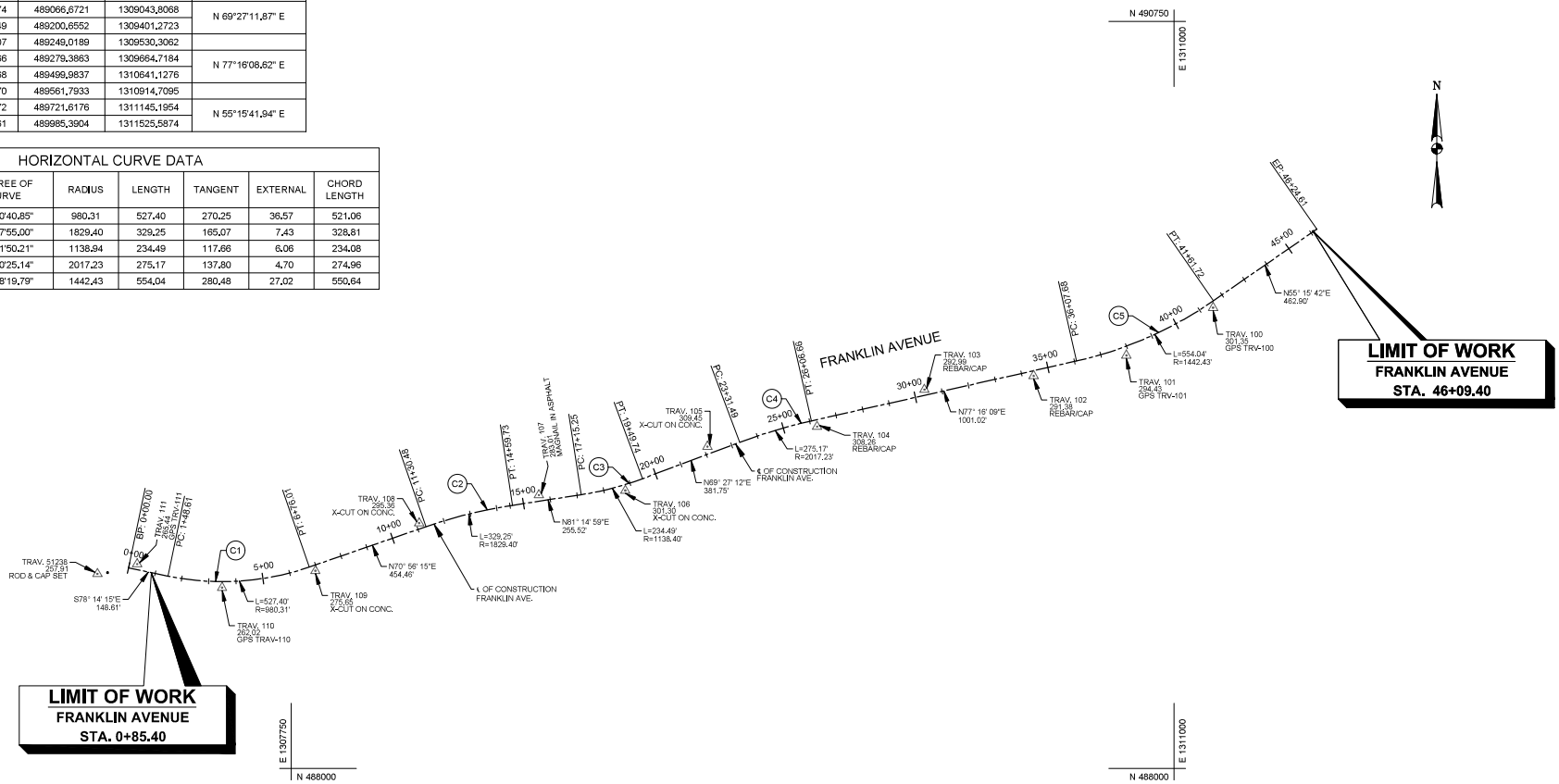
EX - 06

Project No.: TBD 09 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\4-9-EX-04-09.dwg
DATE: Mar 02, 2023 - 10:27am

PROJECT COORDINATES					
CURVE NO.	DESCRIPTION	STATION	NORTHING	EASTING	BEARING
	POB	0+00.00	488738.2784	1307150.5858	S 78°14'15.22" E
C1	PC	1+48.61	488707.9829	1307296.0785	
	PI	4+12.31	488652.8914	1307560.6533	
	PT	6+76.01	488741.1542	1307816.0835	N 70°56'15.47" E
C2	PC	11+30.48	488889.5803	1308245.6249	
	PI	12+95.10	488943.4922	1308401.6443	
	PT	14+59.73	488968.6045	1308564.7943	N 81°14'58.54" E
C3	PC	17+15.25	489007.4767	1308817.3391	
	PI	18+32.49	489025.3765	1308933.6306	
	PT	19+49.74	489066.6721	1309043.8068	N 69°27'11.87" E
C4	PC	23+31.49	489200.6552	1309401.2723	
	PI	24+69.07	489249.0189	1309530.3062	
	PT	26+06.66	489279.3863	1309664.7184	N 77°16'08.62" E
C5	PC	36+07.68	489499.9837	1310641.1276	
	PI	38+84.70	489561.7933	1310914.7095	
	PT	41+61.72	489721.6176	1311145.1954	N 55°15'41.94" E
	POE	46+24.61	489985.3904	1311525.5874	

HORIZONTAL CURVE DATA							
CURVE NO.	DELTA	DEGREE OF CURVE	RADIUS	LENGTH	TANGENT	EXTERNAL	CHORD LENGTH
C1	30°49'29.31"	5°50'40.85"	980.31	527.40	270.25	36.57	521.06
C2	10°18'43.07"	3°07'55.00"	1829.40	329.25	165.07	7.43	328.81
C3	11°47'46.67"	5°01'50.21"	1138.94	234.49	117.66	6.06	234.08
C4	7°48'56.75"	2°50'25.14"	2017.23	275.17	137.80	4.70	274.96
C5	22°00'26.68"	3°58'19.79"	1442.43	554.04	280.48	27.02	550.64



0 200 400
SCALE: 1" = 200'

SHELADIA Engineers, Architects Development Consultants
10815 Stacy Grove Road, Rockville, MD, 20850
Phone: 301-309-3808 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

GEOMETRIC LAYOUT

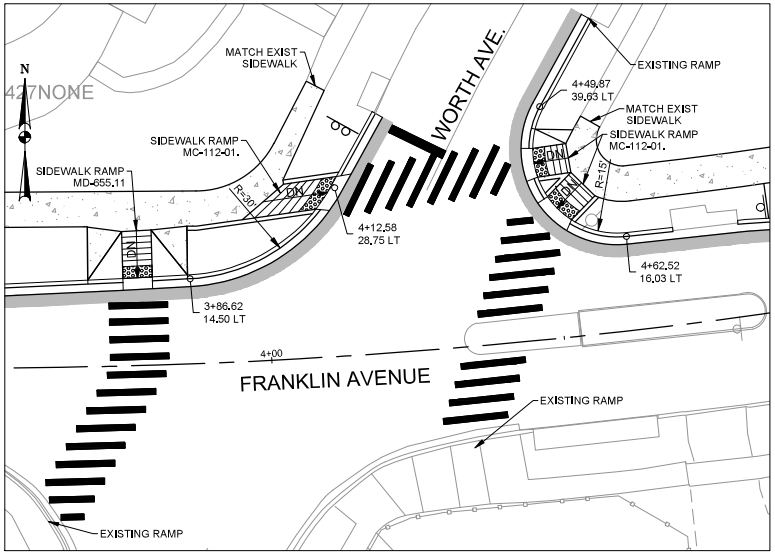
SCALE : 1" = 200'

GS-01

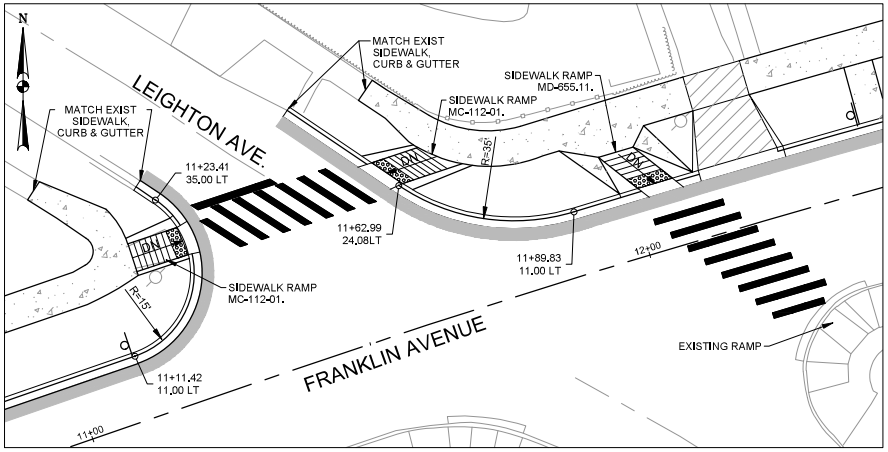
Project No.: TBD 10 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\10-GS-01.dwg
DATE: Mar 07, 2023 - 1:23pm

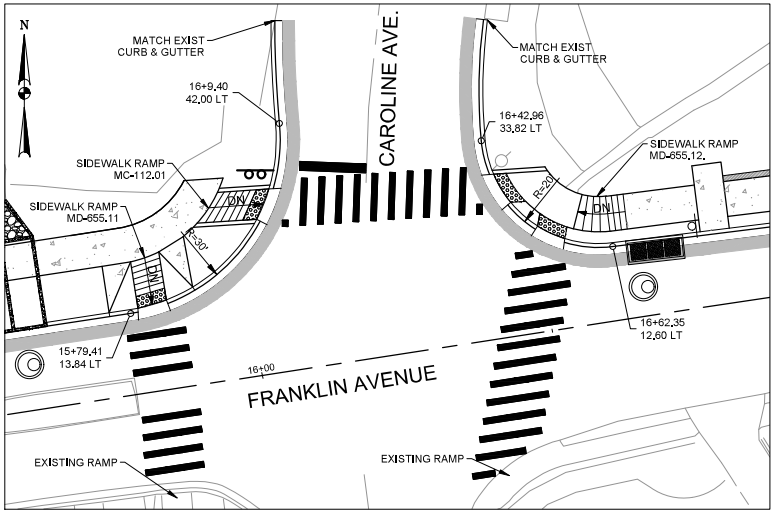
SHEET NO.	TOTAL SHEETS
11	109



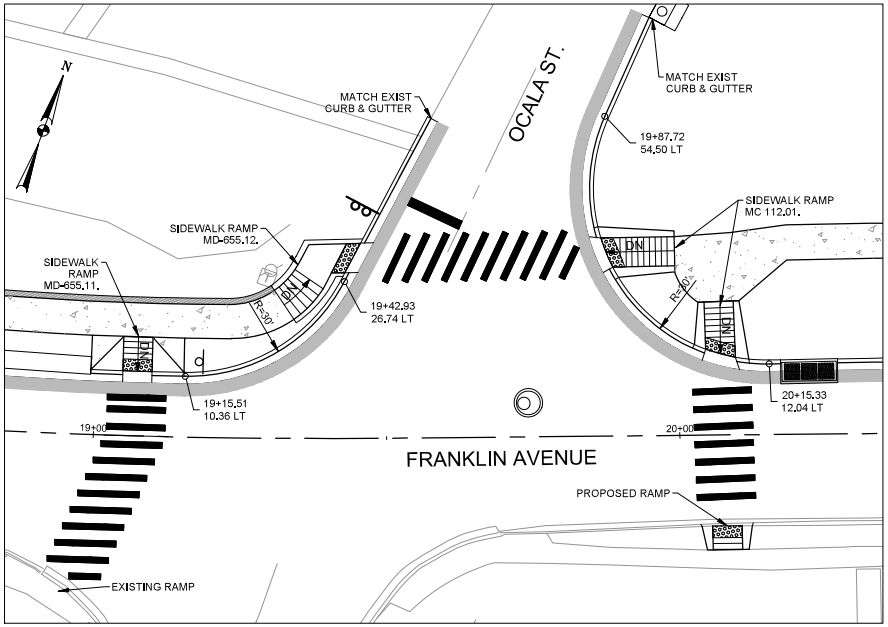
FRANKLIN AVE. AND WORTH AVE. INTERSECTION



FRANKLIN AVE. AND LEIGHTON AVE. INTERSECTION



FRANKLIN AVE. AND CAROLINE AVE. INTERSECTION



FRANKLIN AVE. AND OCALA ST. INTERSECTION

0 10 20
SCALE: 1" = 10'

SHELADIA Engineers, Architects Development Consultants
10815 Stacy Grove Road, Rockville, MD, 20850
Phone: 301-490-3938 Fax: 301-948-7174
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

INTERSECTION DETAILS

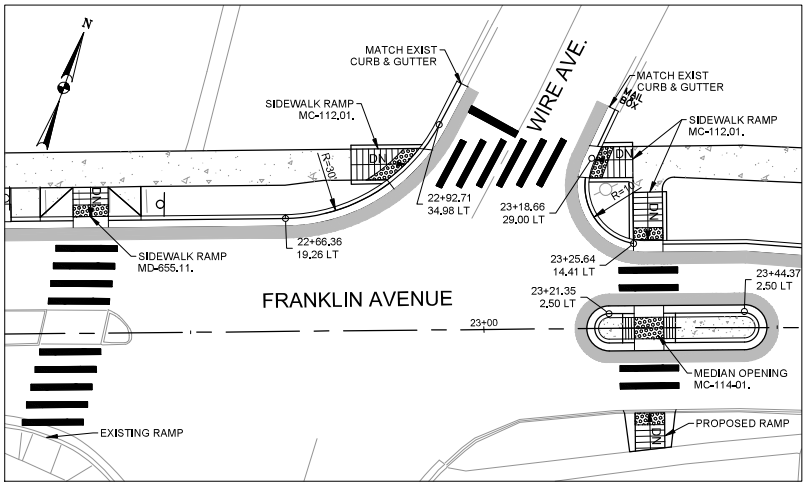
SCALE: AS SHOWN

GS - 02

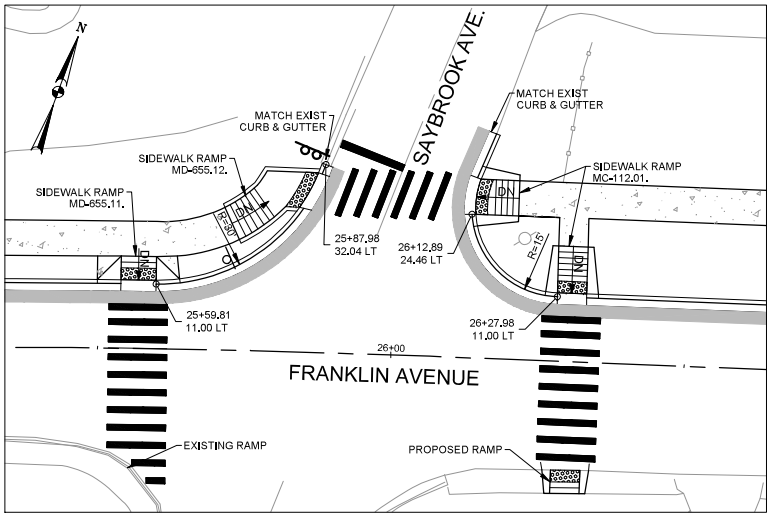
Project No.: TBD. 11 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\11-14-GS-02-05.dwg
DATE: Mar 14, 2023 - 2:53pm

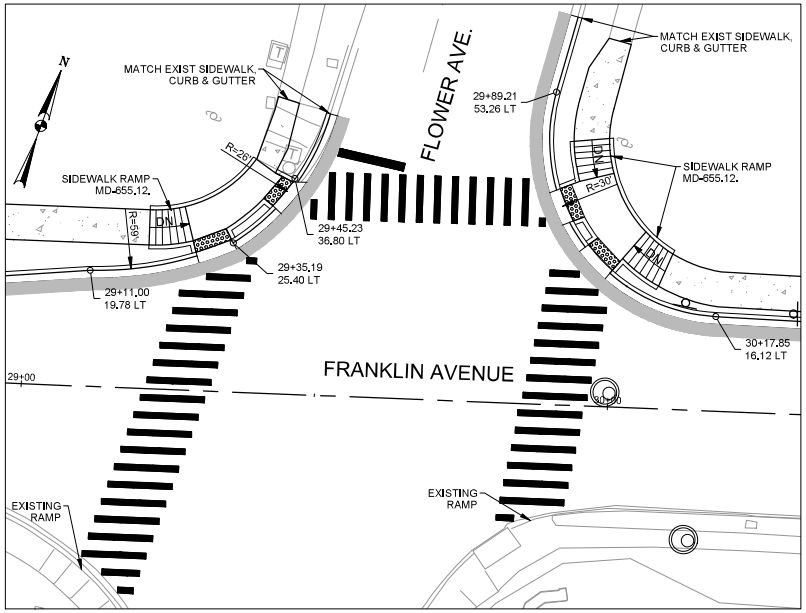
SHEET NO.	TOTAL SHEETS
12	109



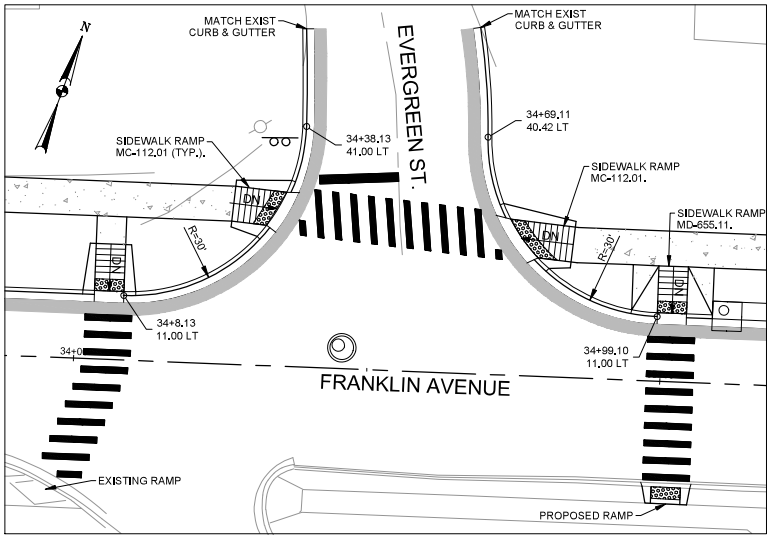
FRANKLIN AVE. AND WIRE AVE. INTERSECTION



FRANKLIN AVE. AND SAYBROOK AVE. INTERSECTION



FRANKLIN AVE. AND FLOWER AVE. INTERSECTION



FRANKLIN AVE. AND EVERGREEN ST. INTERSECTION

0 10 20
SCALE: 1" = 10'

Engineers, Architects Development Consultants
SHELADIA ASSOCIATES, INC.
10815 Stacy Grove Road, Rockville, MD, 20850
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www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

INTERSECTION DETAILS

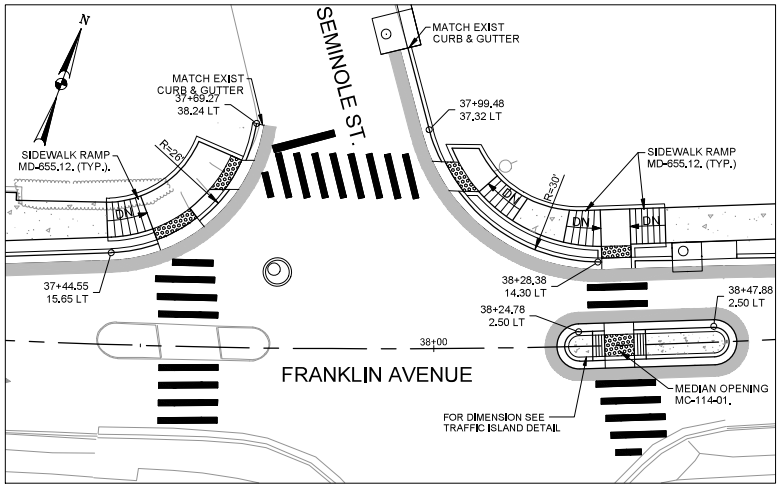
SCALE : AS SHOWN

GS - 03

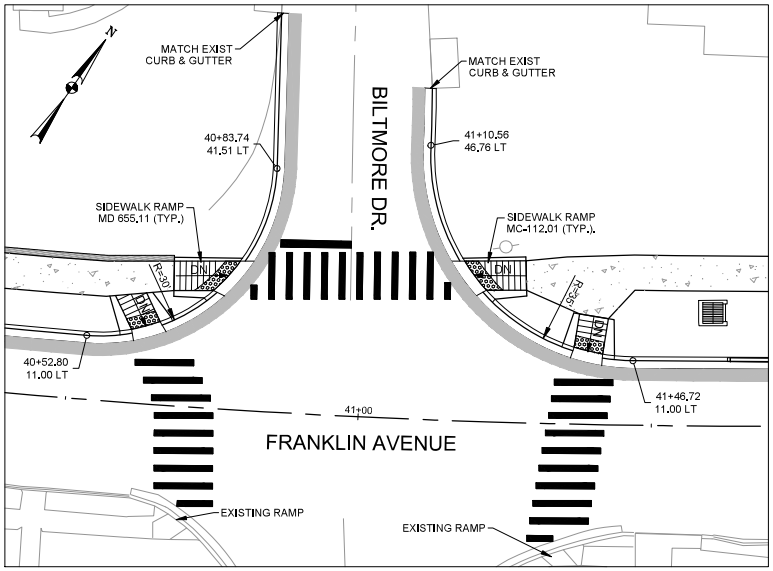
Project No.: TBD 12 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\11-14-GS-02-05.dwg
DATE: Mar 14, 2023 - 2:54pm

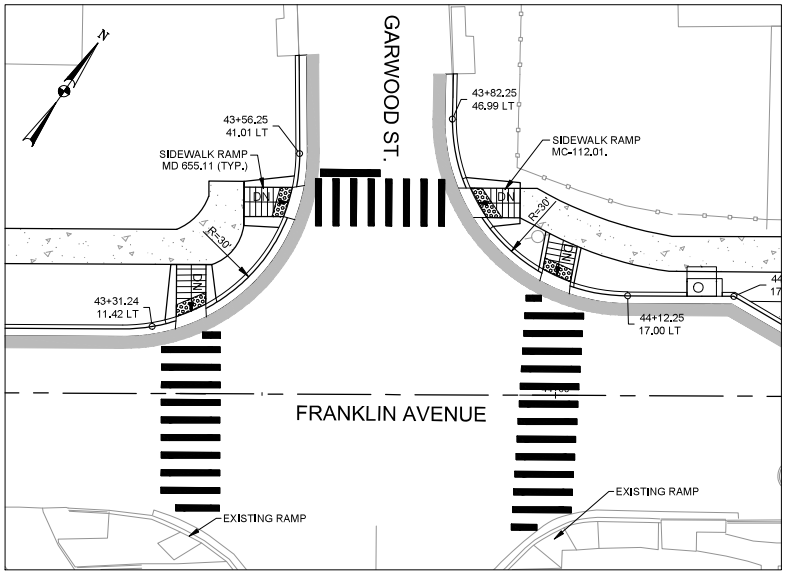
SHEET NO.	TOTAL SHEETS
13	109



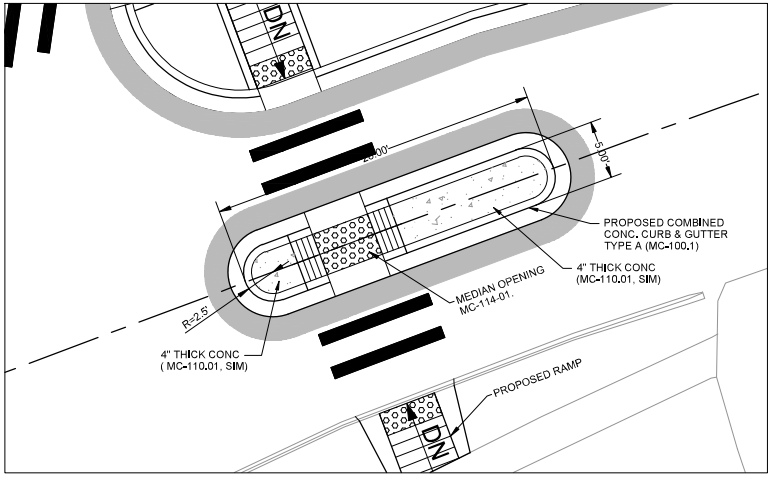
FRANKLIN AVE. AND SEMINOLE ST. INTERSECTION



FRANKLIN AVE. AND BILTMORE DR. INTERSECTION



FRANKLIN AVE. AND GARWOOD ST. INTERSECTION



TRAFFIC ISLAND DETAIL (TYPICAL 2 EA)

SCALE: 1" = 5'

0 10 20
SCALE: 1" = 10'

SHELADIA Engineers, Architects Development Consultants
10875 Shady Grove Road, Rockville, MD, 20850
Phone: 301-309-9038 Fax: 301-948-7174
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

INTERSECTION DETAILS

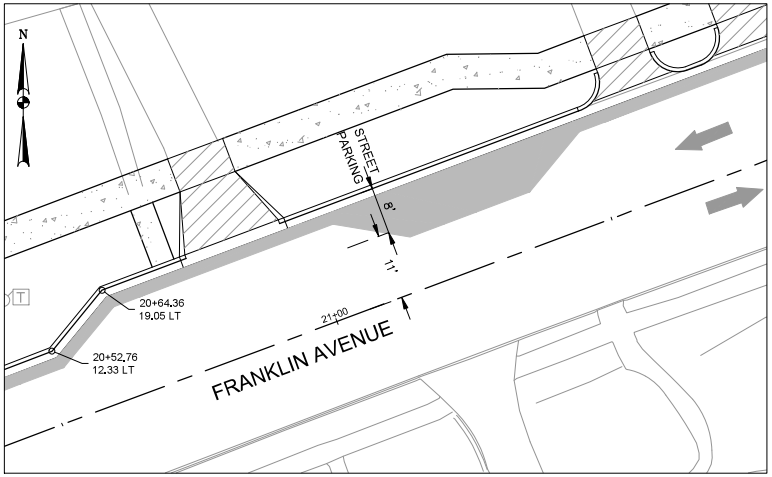
SCALE : AS SHOWN

GS - 04

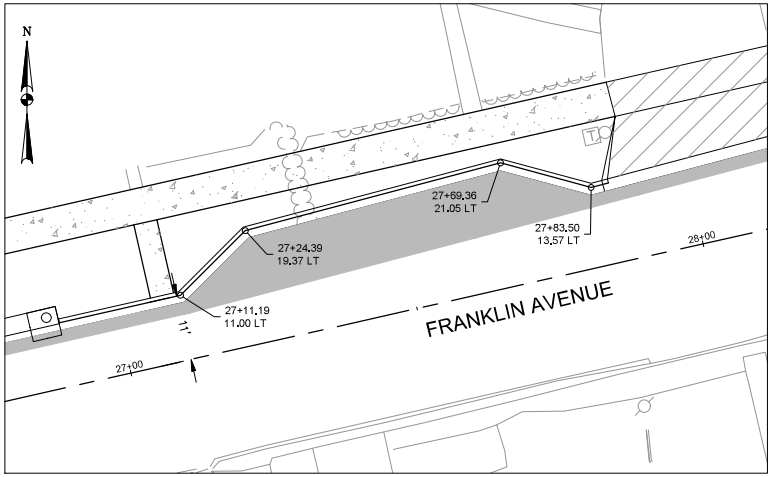
Project No.: TBD 13 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\11-14-GS-02-05.dwg
DATE: Mar 14, 2023 - 2:56pm

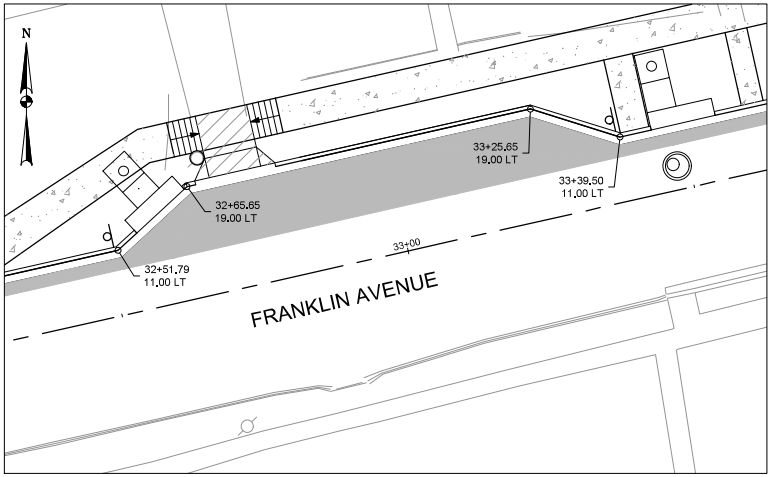
SHEET NO.	TOTAL SHEETS
14	109



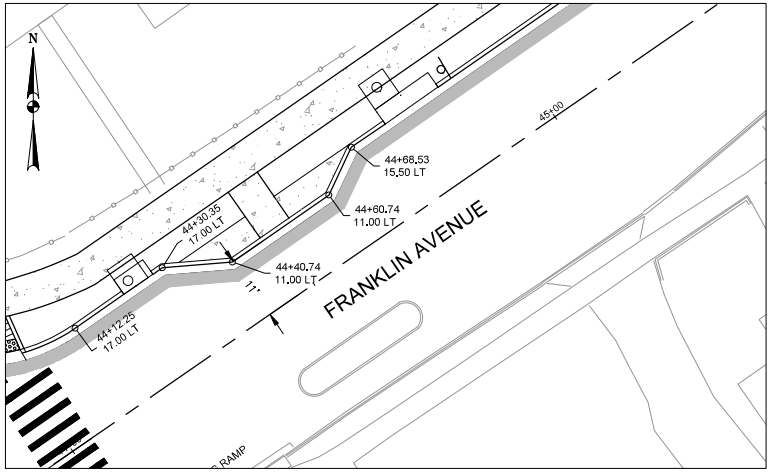
DETAIL - 1



DETAIL - 2



DETAIL 3



DETAIL 4

0 10 20
SCALE: 1" = 10'

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10875 Strathy Grove Road, Rockville, MD, 20850
Phone: 301-309-9038 Fax: 301-948-7174
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CURB EXTENSION DETAILS

SCALE : AS SHOWN

GS - 05

Project No.: TBD 14 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\11-14-GS-02-05.dwg
DATE: Mar 01, 2023 - 4:27pm

SHEET NO.	TOTAL SHEETS
15	109

COMBINATION CONCRETE CURB AND GUTTER TYPE A (STD. NO.MC-100.01)		
QUANTITY (LF)	STA. START	STA. END
85.8	0+85.50 LT	1+71.30 LT
29.3	1+82.00 LT	2+11.60 LT
78.1	2+40.20 LT	2+58.50 LT
32.4	3+80.07 LT	4+09.86 LT
92.1	4+13.87 LT	4+21.00 LT
24.6	4+47.21 LT	4+60.00 LT
3.9	4+47.58 LT	4+49.00 LT
98.1	4+52.00 LT	4+71.00LT

COMBINATION CONCRETE CURB AND GUTTER TYPE C (STD. NO.MC-101.01)		
QUANTITY (SF)	STA. START	STA. END
3.4	2+74.71 LT	2+78.18 LT
14.4	2+97.08 LT	3+11.69 LT
42	3+32.48 LT	3+75.00 LT
38.7	4+81.33 LT	5+21.03 LT
31.1	5+25.08 LT	5+56.58 LT
7.3	5+60.62 LT	5+68.04 LT
7.3	5+72.09 LT	5+79.05 LT
14.3	5+83.59 LT	5+98.10 LT
7.3	6+02.15 LT	6+09.58 LT
7.3	6+13.62 LT	6+21.05 LT
9.6	6+25.12 LT	6+34.81 LT
55.1	6+55.96 LT	7+21.25 LT
8.1	7+41.27 LT	7+50.00 LT

DEPRESSED CURB ENTRANCE (STD. NO.MC-102.01)		
QUANTITY (SF)	STA. START	STA. END
28.3	2+11.59 LT	2+40.20 LT
28.7	2+78.18 LT	2+97.08 LT
20.5	3+11.69 LT	3+32.48 LT
5	3+75.00 LT	3+80.00 LT
6.7	4+09.06 LT	4+13.00LT
5.4	4+47.90 LT	4+48.24 LT
6	4+49.63 LT	4+53.36 LT
21	6+34.81 LT	6+55.96 LT
20	7+21.25 LT	7+41.27 LT

4 INCH THICK RESIDENTIAL SIDEWALK (STD. NO.MC-110.01)		
QUANTITY (SF)	STA. START	STA. END
705	1+61.86 LT	2+15.58LT
262	2+36.25 LT	2+81.04LT
134	2+53.40 LT	3+16.27 LT
528	3+28.78 LT	4+11.82 LT
1196	4+61.58 LT	6+38.91 LT
436	6+52.00 LT	7+25.25 LT
77	7+37.27 LT	7+50.00 LT

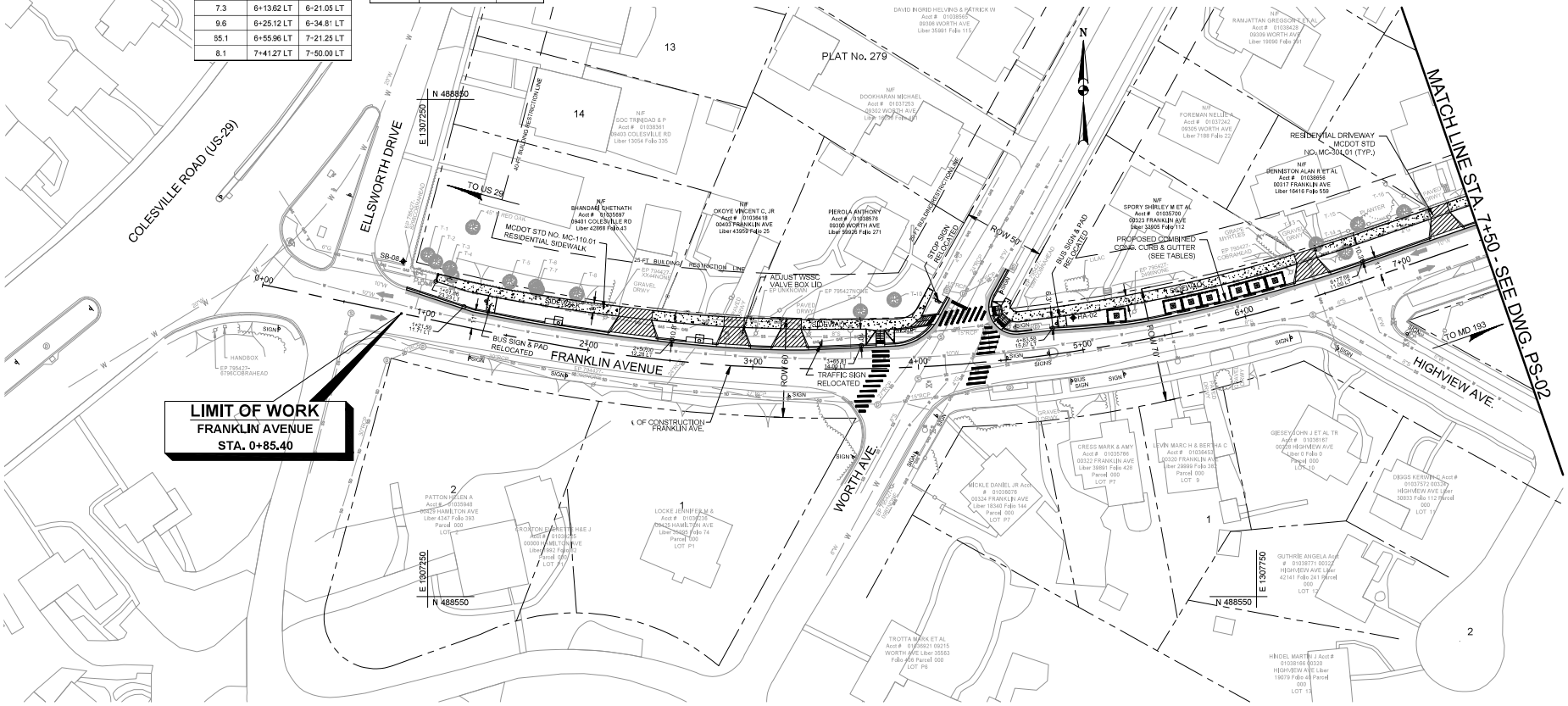
7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MC-301.01)	
QUANTITY (SF)	STATION
361	2+25.86 LT
233	2+87.22 LT
247	3+22.52 LT
247	6+45.45 LT
237	7+31.26 LT

SIDEWALK RAMP PERPENDICULAR (STD NO. MD-655.11)	
QUANTITY (EA)	STATION
1	3+77.53 LT
1	4+11.21 LT
1	4+47.85 LT
1	4+51.10 LT

DETECTABLE WARNING SURFACE (STD NO. MD-655.40)	
QUANTITY (SF)	STATION
10	3+77.53 LT
13	4+14.93 LT
10	4+47.88 LT
11	4+51.57 LT

CURB OPENING @ PLANTERS OPENING SIZE (4'-0"W X 0'-3"H MIN) STA. (CENTER OF OPENING)
5+23.00, LT
5+58.60 LT
5+70.00 LT
5+81.57 LT
6+00LT
6+11.60 LT
6+23.00 LT

FULL DEPTH BITUMINOUS CONCRETE PAVEMENT		
QUANTITY	STA. START	STA. END
77 SY	0+85.45 LT	4+23.57 LT
57 SY	4+57.33 LT	7+50.00 LT



REFERENCE NOTES:

1. FOR EXISTING TREE INFORMATION ALONG NORTH SIDE OF FRANKLIN AVE., SEE DWG. EX-06.
2. FOR STORM DRAIN PLAN, SEE DWG'S. SD-01 TO SD-06.
3. FOR PLANTER BOX AND PERVIOUS CONCRETE PLAN, SEE DWG'S. SWM-01 TO SWM-04.
4. FOR SOIL BORING LOGS, SEE DWG SB-08 & HA-02.

LEGEND:

- CONCRETE SIDEWALK
- CONCRETE DRIVEWAY
- PERVIOUS CONCRETE SIDEWALK
- FULL DEPTH PAVEMENT
- SOIL BORING LOCATIONS

0 30 60
SCALE: 1" = 30'

Engineers, Architects Development Consultants
SHELADIA
19879 Shady Grove Road, Rockville, MD, 20850
Phone: 301-963-3333 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date

FRANKLIN AVENUE SIDEWALK

ROADWAY AND SIDEWALK PLAN
STA. 0+00 TO STA. 7+50

SCALE : AS SHOWN

PS-01

Project No.: TBD

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\15-20-PS-01-06.dwg
DATE: Mar 08, 2023 - 10:43am

SHEET NO.	TOTAL SHEETS
16	109

COMBINATION CONCRETE CURB AND GUTTER TYPE A (STD NO.MC-100.01)		
QUANTITY (LF)	STA. START	STA END
21.9	11+11.42 LT	11+24.32 LT
10	11+26.00 LT	11+2[illegible].00 LT
16.4	11+49.20 LT	11+59.00 LT
43.4	11+62.93 LT	12+0[illegible].82 LT
4.1	12+07.91 LT	12+0[illegible].00 LT

COMBINATION CONCRETE CURB AND GUTTER TYPE C (STD. NO.MC-101.01)		
QUANTITY (LF)	STA. START	STA. END
98.0	7+50.00 LT	8+48.00 LT
136.3	8+66.00 LT	10+02.00 LT
65.1	10+46.36 LT	11+11.42 LT
5.0	12+07.00 LT	12+12.00 LT
32.2	12+25.90 LT	12+58.00 LT
31.7	12+75.84 LT	13+07.39 LT
24.5	13+26.26 LT	13+50.62 LT
5.6	13+71.98 LT	13+77.52 LT
3.6	13+98.36 LT	14+01.97 LT
25.7	14+41.62 LT	14+67.21 LT
15.5	14+84.64 LT	15+00.00 LT

DEPRESSED CURB ENTRANCE (STD. NO.NC-102.01)		
QUANTITY (LF)	STA START	STA. END
18.0	8+48.00 LT	8+66.00 LT
44.0	10+02.36 LT	10+46.31 LT
5.0	11+26.32 LT	11+26.00 LT
5.0	11+59.01 LT	11+62.93 LT
5.0	12+02.82 LT	12+07.91 LT
14.0	12+12.00 LT	12+25.90 LT
18.0	12+57.95 LT	12+75.84 LT
19.0	13+07.39 LT	13+26.26 LT
21.5	13+50.62 LT	13+72.00 LT
39.9	14+01.97 LT	14+41.62 LT
17.3	14+67.21 LT	14+84.54 LT

FULL DEPTH BITUMINOUS CONCRETE PAVEMENT		
QUANTITY (SY)	STA. START	STA. END
108	7+50.00 LT	11+23.66 LT
82	11+46.61 LT	15+00.00 LT

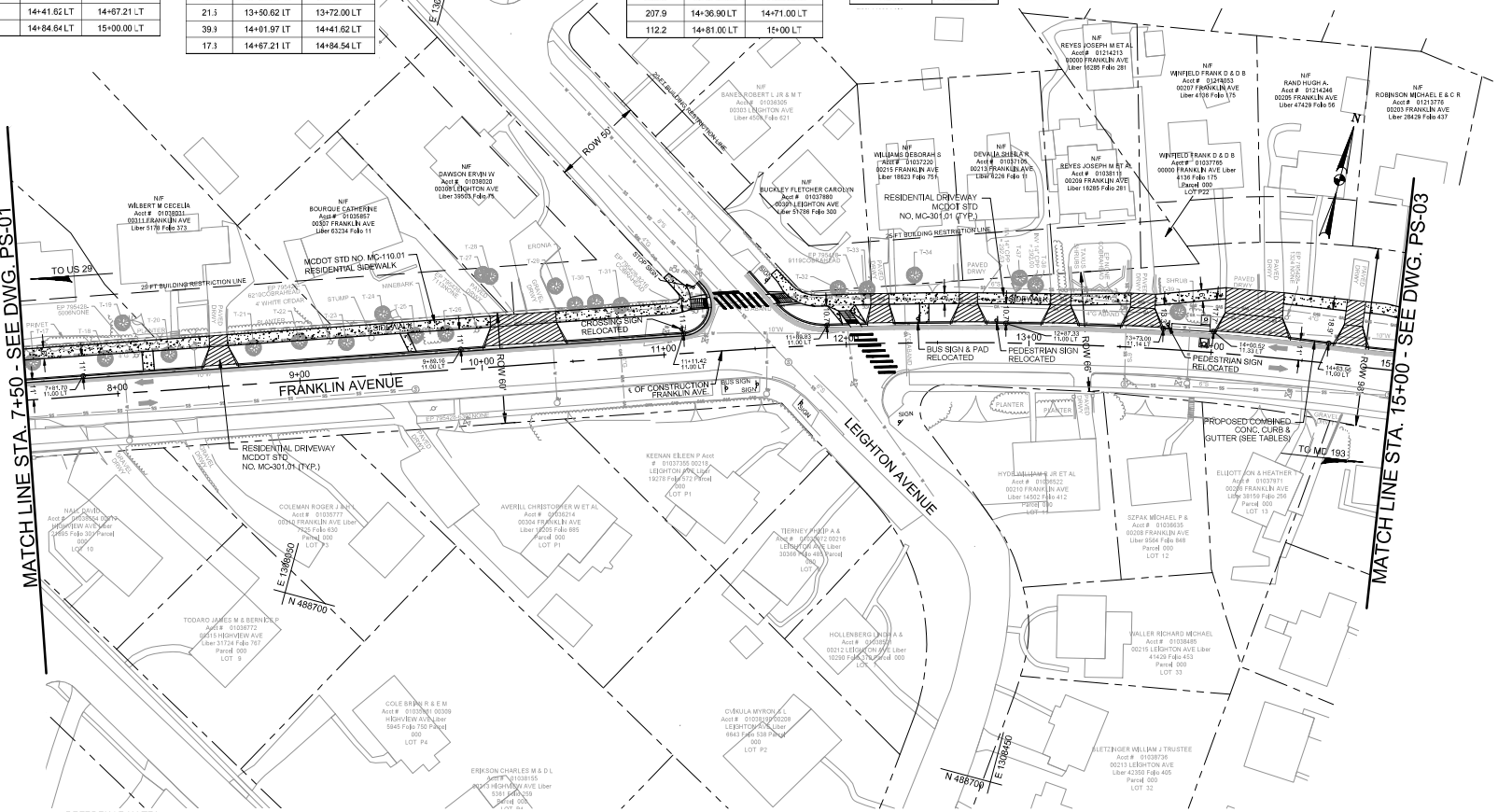
4 INCH THICK RESIDENTIAL SIDEWALK (STD. NO.MC-110.01)		
QUANTITY (SF)	STA. START	STA. END
673.4	7+50.00 LT	8+52.02 LT
908.9	8+62.02 LT	10+06.36 LT
535.3	10+42.31 LT	11+05.72 LT
343.8	11+61.00 LT	12+14.00 LT
231.5	12+23.88 LT	12+61.92 LT
240.2	12+71.81 LT	13+11.33 LT
196.5	13+22.24 LT	13+54.53 LT
230.6	13+67.92 LT	14+05.69 LT
207.9	14+36.90 LT	14+71.00 LT
112.2	14+81.00 LT	15+00 LT

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO.MC-301.01)	
QUANTITY (SF)	STATION
204.5	8+57.00 LT
627.9	10+24.34 LT
179.8	12+18.94 LT
199.9	12+66.86 LT
216.6	13+16.79 LT
282.00	13+61.23 LT
796.5	14+21.51 LT
282.1	14+75.89 LT

SIDEWALK RAMP PERPENDICULAR (STD NO. MD-655.11)	
QUANTITY (EA)	STATION
1	12+04.55 LT

RESIDENTIAL SIDEWALK RAMP (STD NO. MC-112.01)	
QUANTITY (EA)	STATION
1	11+25.50 LT
1	11+61.04 LT

DETECTABLE WARNING SURFACE (STD NO. MD-655.40)	
QUANTITY (SF)	STATION
10	11+25.50 LT
10	11+61.04 LT
10	12+04.55 LT



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3. FOR PLANTER BOX AND PERVIOUS CONCRETE PLAN, SEE DWG'S. SWM-01 TO SWM-04.

LEGEND:

- CONCRETE SIDEWALK
- CONCRETE DRIVEWAY
- PERVIOUS CONCRETE SIDEWALK
- FULL DEPTH PAVEMENT

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
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NO.	REVISION	DATE	BY

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GAITHERSBURG, MARYLAND

CONTACT:
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CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date

Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.

Administrative Requirements: Reviewed — Date

SEDIMENT CONTROL TECHNICIAN

MCDOT APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE OF APPROVAL. ANY CHANGES TO THE DESIGN CAUSED BY THE PLAN REVIEWERS WILL BE REQUIRED

FRANKLIN AVENUE SIDEWALK

ROADWAY AND SIDEWALK PLAN STA. 7+50 TO STA. 15+00

SCALE : AS SHOWN

PS-02

Project No.: TBD — 16 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\15-20-PS-01-06.dwg
DATE: Mar 08, 2023 - 10:44am

SHEET NO.	TOTAL SHEETS
17	109

COMBINATION CONCRETE CURB AND GUTTER TYPE A (STD. NO.MC-100.01)		
QUANTITY (LF)	STA. START	STA. END
14.6	15+65.04 LT	15+80.73 LT
21.6	15+85.93 LT	16+03.61 LT
28.8	16+06.64 LT	16+11.30 LT
26.6	16+46.50 LT	16+43.47 LT
8.3	16+45.76 LT	16+49.77 LT
10.7	16+54.30 LT	16+64.66 LT
5.5	18+99.18 LT	19+04.71 LT
40.7	19+09.76 LT	19+43.75 LT
24.1	19+46.49 LT	19+58.07 LT
39.6	19+95.39 LT	19+86.14 LT
22.1	19+88.24 LT	20+04.31 LT
7.5	20+09.81 LT	20+17.24 LT

COMBINATION CONCRETE CURB AND GUTTER TYPE C (STD. NO.MC-101.01)		
QUANTITY (LF)	STA. START	STA. END
48.6	15+00.00 LT	15+48.54 LT
104.3	16+64.66 LT	17+69.49 LT
96.4	17+80.61 LT	18+78.00 LT
54.6	20+27.00 LT	20+79.71 LT
62.7	20+96.71 LT	21+56.52 LT
18.0	21+66.08 LT	21+78.35 LT
14.8	21+88.00 LT	22+00 LT

DEPRESSED CURB ENTRANCE (STD. NO.MC-1(2.01)		
QUANTITY (LF)	STA. START	STA. END
5.0	15+80.73 LT	15+85.93 LT
5.9	16+03.88 LT	16+06.64 LT
6.1	16+43.41 LT	16+45.76 LT
5.5	16+49.71 LT	16+54.30 LT
5.0	19+04.71 LT	19+09.76 LT
5.7	19+43.75 LT	19+46.49 LT
5.8	19+86.14 LT	19+88.24 LT
5.7	20+04.31 LT	20+09.81 LT
17.0	20+79.71 LT	20+96.71 LT
14.6	21+54.00 LT	21+68.55 LT
14.7	21+75.85 LT	21+90.57 LT

4 INCH THICK RESIDENTIAL SIDEWALK (STD. NO.MC-110.01)		
QUANTITY (SF)	STA. START	STA. END
744.6	15+00.00 LT	16+98.51 LT
1524.7	16+65.25 LT	19+34.12 LT
622.4	20+00.00 LT	20+82.70 LT
388.9	20+92.70 LT	21+56.50 LT
73.7	21+66.08 LT	21+78.35 LT
71.5	21+88.06 LT	22+00.00 LT

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MC-301.01)	
QUANTITY (SF)	STATION
199.5	20+87.80 LT

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MC-301.05)	
QUANTITY (SF)	STATION
111.5	21+61.30 LT
113.0	21+83.21 LT

SIDEWALK RAMP PERPENDICULAR (STD NO. MD-655.11)	
QUANTITY (EA)	STATION
1	15+82.19 LT
1	19+07.24 LT

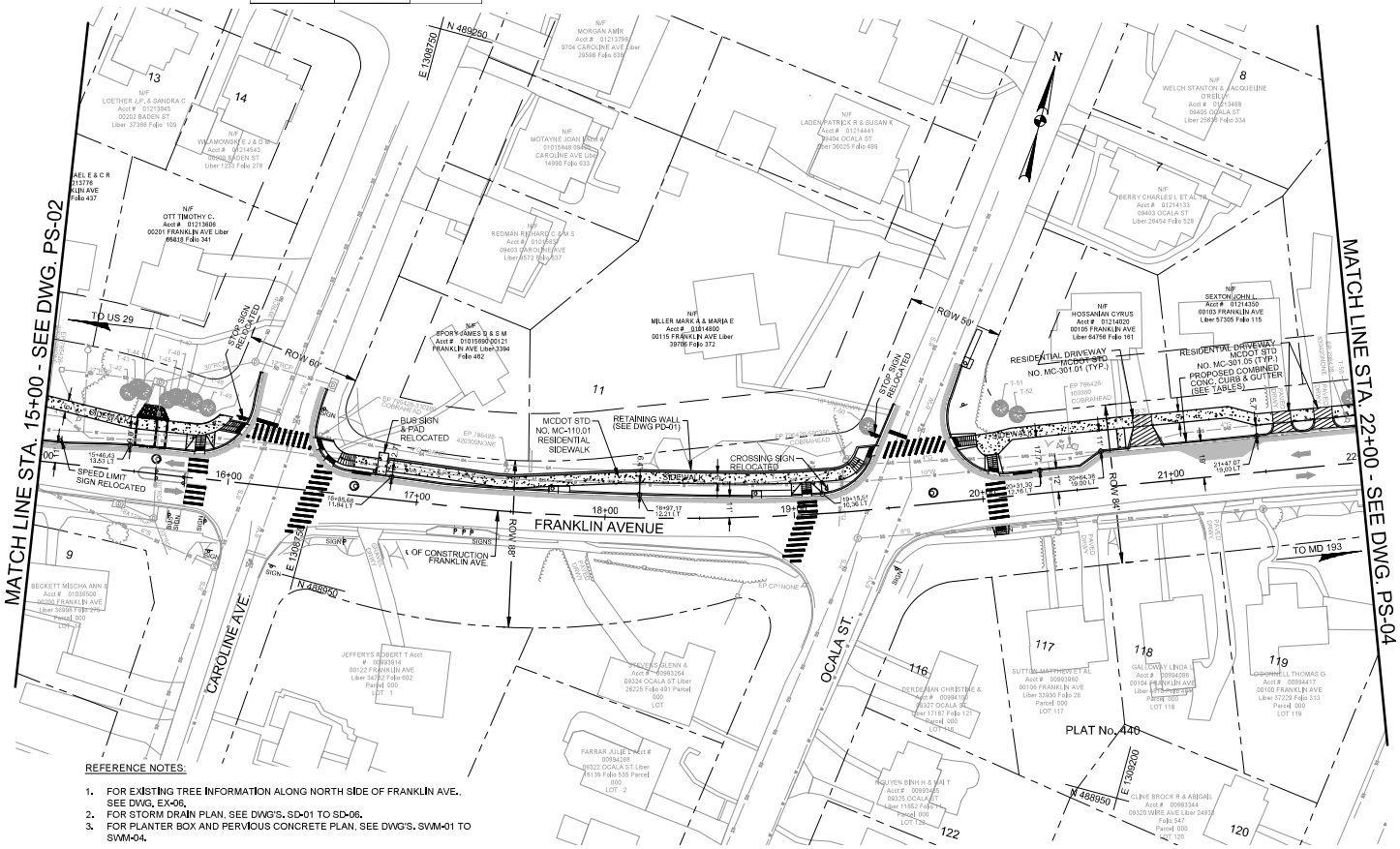
RESIDENTIAL SIDEWALK RAMP (STD NO. MC-112.01)	
QUANTITY (EA)	STATION
1	16+04.65 LT
1	19+87.77 LT
1	20+07.00 LT

SIDEWALK RAMP PARALLEL (STD NO. MD-655.12)	
QUANTITY (EA)	STATION
1	16+45.06 LT
1	16+52.26 LT
1	19+44.34 LT

DETECTABLE WARNING SURFACE (STD NO. MD-655.40)	
QUANTITY (SF)	STATION
10.0	15+83.34 LT
11.3	16+04.51 LT
11.5	16+45.06 LT
11.4	16+52.26 LT
11.4	19+07.24 LT
10.6	19+44.34 LT
10.0	19+87.77 LT
12.0	20+07.07 LT

FULL DEPTH BITUMINOUS CONCRETE PAVEMENT		
QUANTITY (SY)	STA. START	STA. END
33	15+00.00 LT	16+12.62 LT
84	16+45.18 LT	19+59.25 LT
60	19+94.18 LT	22+00.00 LT

REINFORCED RETAINING WALL		
QUANTITY (LF)	STA. START	STA. END
243.8	16+82.68 LT	19+30.71 LT



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3. FOR PLANTER BOX AND PERVIOUS CONCRETE PLAN, SEE DWG'S. SWM-01 TO SWM-04.

LEGEND:

- CONCRETE SIDEWALK
- CONCRETE DRIVEWAY
- PERVIOUS CONCRETE SIDEWALK
- FULL DEPTH PAVEMENT

0 30 60
SCALE: 1" = 30'

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date

Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date

SEDIMENT CONTROL INSPECTOR

ACCEPT APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE OF APPROVAL UNLESS A LONGER EXTENSION GRANTED UNDER THE PLAN REVIEW FEE SCHEDULE

FRANKLIN AVENUE SIDEWALK

ROADWAY AND SIDEWALK PLAN
STA. 15+00 TO STA. 22+00

SCALE: AS SHOWN

PS-03

Project No.: TBD

17 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\15-20-PS-01-06.dwg
DATE: Mar 13, 2023 - 5:23pm

SHEET NO.	TOTAL SHEETS
18	109

4 INCH THICK RESIDENTIAL SIDEWALK (STD. NO.MC-110.01)		
QUANTITY (SF)	STA. START	STA. END
594	22+00.00 LT	22+89.71 LT
67[illegible]	23+25.61 LT	24+34.08 LT
50	24+43.97 LT	24+52.22 LT
259	24+67.14 LT	25+09.16 LT
248	25+31.98 LT	25+73.75 LT
1090	26+20.82 LT	27+90.14 LT
662	28+18.16 LT	29+20.82 LT
50	29+41.88 LT	29+45.51 LT
99	29+97.81 LT	29+92.55 LT
250	30+07.74 LT	30+50.00 LT

FULL DEPTH BITUMINOUS CONCRETE PAVEMENT		
QUANTITY (SY)	STA. START	STA. END
24	22+00.00 LT	22+99.43 LT
68	23+19.22 LT	25+91.00 LT
132	26+13.93 LT	29+48.28 LT
24	29+89.15 LT	30+50.00 LT

RESIDENTIAL SIDEWALK RAMP (STD NO. MC-112.01)	
QUANTITY (EA)	STATION
1	22+86.67 LT
1	23+19.25 LT
1	23+28.14 LT
1	23+28.14 RT
1	26+13.56 LT
1	26+30.47 LT

SIDEWALK RAMP PARALLEL (STD NO. MD-655.12)	
QUANTITY (EA)	STATION
1	25+85.44 LT
1	29+31.90 LT
1	29+43.31 LT
1	29+91.57 LT
1	29+97.70 LT

SIDEWALK RAMP PERPENDICULAR (STD NO. MD-655.11)	
QUANTITY (EA)	STATION
1	22+33.17 LT
1	25+56.82 LT

MEDIAN OPENING (STD NO. MC-114.01)	
QUANTITY (EA)	STATION
1	23+28.14

DETECTABLE WARNING SURFACE (STD NO. MC-655.40)	
QUANTITY (SF)	STATION
12	22+33.17 LT
16	22+36.67 LT
11	23+19.32 LT
10	23+28.14 LT
18	23+28.14 LT (MEDIAN)
10	23+28.14 RT
12	25+36.82 LT
14	25+35.44 LT
12	26+13.56 LT
10	26+30.47 LT
10	26+30.47 RT
10	29+31.86 LT
10	29+43.31 LT
12	29+91.74 LT
11	29+97.79 LT

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MC-301.01)	
QUANTITY (SF)	STATION
193.8	24+39.00 LT
283.6	24+61.33 LT
472.8	28+04.15 LT

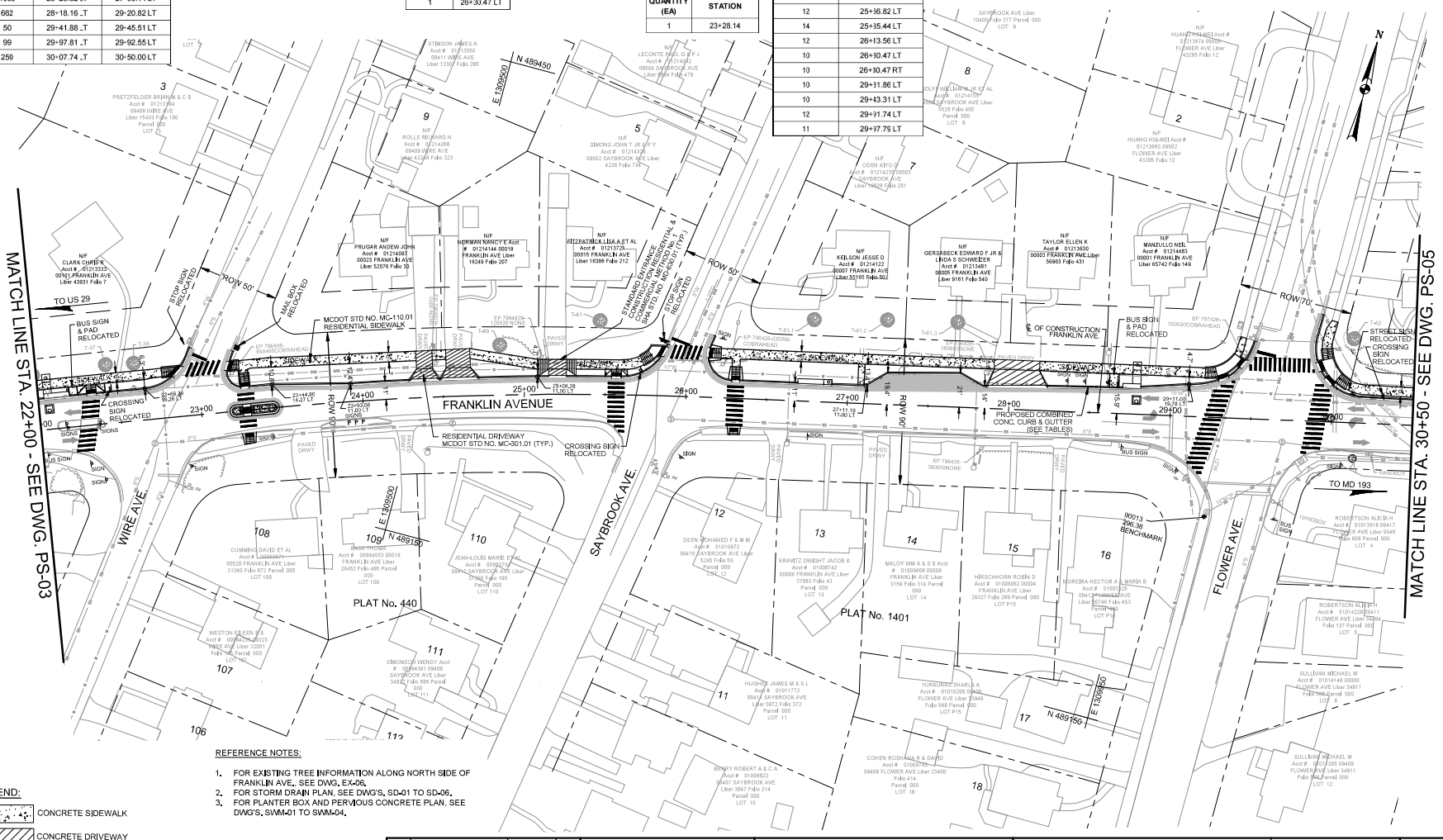
7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MD-630.01)	
QUANTITY (SF)	STATION
110.0	25+20.57 LT

MONOLETHIC CONCRETE MEDIAN, 4' WIDE		
QUANTITY (LF)	STA. START	STA. END
27.1	23+19.00	23+46.00

COMBINATION CONCRETE CURB AND GUTTER TYPE A (STD. NO.MC-100.01)		
QUANTITY (LF)	STA. START	STA. END
49.2	22+36.17 LT	22+84.15 LT
12.9	22+90.13 LT	22+96.52 LT
6.9	23+22.69 LT	23+19.66 LT
15.4	23+17.57 LT	23+25.84 LT
51.7	23+18.68 (MEDIAN)	23+47.08(MEDIAN)
29.5	25+59.81 LT	25+84.45 LT
1.7	25+87.39 LT	25+87.95 LT
8.2	26+16.53 LT	26+13.60 LT
22.2	26+12.89 LT	26+27.98 LT
48.4	28+81.23 LT	29+29.10 LT
9.4	29+35.19 LT	29+42.19 LT
13.0	29+45.74 LT	29+50.86 LT
30.2	29+92.38 LT	29+89.90 LT
5.0	29+92.34 LT	29+95.15 LT
20.0	29+99.50 LT	30+17.85 LT

COMBINATION CONCRETE CURB AND GUTTER TYPE C (STD. NO.MC-101.01)		
QUANTITY	STA. START	STA. END
3.6	22+00.00 LT	22+03.59 LT
10.6	22+19.59 LT	22+30.17 LT
100.2	23+30.64 LT	24+30.10 LT
2.3	24+47.00 LT	24+49.32 LT
44.2	24+71.20 LT	25+15.11 LT
28.0	25+26.05 LT	25+53.84 LT
36.0	26+33.00 LT	26+69.00 LT
100.8	26+95.00 LT	27+86.54 LT
45.3	28+22.51 LT	28+70.07 LT
32.4	30+17.85 LT	30+50.00 LT

DEPRESSED CURB ENTRANCE (STD. NO.MC-102.01)		
QUANTITY	STA. START	STA. END
6.0	22+30.17 LT	22+36.17 LT
6.0	22+92.71 LT	22+55.57 LT
6.0	23+21.86 LT	23+19.23 LT
5.0	23+25.54 LT	23+30.64 LT
17.0	24+30.10 LT	24+47.00 LT
22.0	24+49.32 LT	24+71.20 LT
11.0	25+15.11 LT	25+26.05 LT
6.0	25+53.84 LT	25+59.80 LT
9.4	25+82.71 LT	25+87.29 LT
6.4	26+13.50 LT	26+12.89 LT
5.0	26+28.30 LT	26+33.00 LT
36.0	27+86.52 LT	28+22.51 LT
6.4	29+29.10 LT	29+35.19 LT
6.0	29+88.38 LT	29+88.71 LT
6.0	29+95.15 LT	29+99.50 LT



REFERENCE NOTES:

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2. FOR STORM DRAIN PLAN, SEE DWG'S. SD-01 TO SD-06.
3. FOR PLANTER BOX AND PERVIOUS CONCRETE PLAN, SEE DWG'S. SWM-01 TO SWM-04.

LEGEND:

- CONCRETE SIDEWALK
- CONCRETE DRIVEWAY
- PERVIOUS CONCRETE SIDEWALK
- FULL DEPTH PAVEMENT

0 30 60
SCALE: 1" = 30'

Engineers, Architects Development Consultants
SHELADIA
10835 Shady Grove Road, Rockville, MD, 20866
Phone: 301-990-3333 Fax 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date

Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date

FRANKLIN AVENUE SIDEWALK

ROADWAY AND SIDEWALK PLAN
STA. 22+00 TO STA. 30+50

SCALE: AS SHOWN

PS-04

Project No.: TBD

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\15-20-PS-01-06.dwg
DATE: Mar 13, 2023 - 5:58pm

SHEET NO.	TOTAL SHEETS
19	109

COMBINATION CONCRETE CURB AND GUTTER TYPE A (STD. NO.MC-100.01)		
QUANTITY (LF)	STA. START	STA. END
28.5	34+08.13 LT	34+32.53 LT
28.2	34+35.92 LT	34+37.48 LT
33.0	34+67.10 LT	34+72.69 LT
23.7	34+77.80 LT	34+99.10 LT
4.4	35+04.10 LT	35+08.51 LT
36.3	35+16.22 LT	35+51.98 LT
7.4	37+60.16 LT	37+64.23 LT
6.5	37+67.54 LT	37+69.28 LT
17.0	37+95.74 LT	38+00.22 LT
29.0	38+05.10 LT	38+29.05 LT
63.3	38+23.73(MEDIAN)	38+52.38(MEDIAN)
7.0	38+34.11 LT	38+41.21 LT

COMBINATION CONCRETE CURB AND GUTTER TYPE C (STD. NO.MC-101.01)		
QUANTITY (LF)	STA. START	STA. END
95.5	30+50.00 LT	31+45.64 LT
8.7	31+95.61 LT	32+04.34 LT
27.7	32+28.48 LT	32+55.58 LT
2.2	32+65.08 LT	32+67.15 LT
65.9	32+81.15 LT	33+44.95 LT
47	33+56.12 LT	34+03.12 LT
10.3	35+19.51 LT	35+29.83 LT
18.3	35+57.03 LT	36+75.29 LT
14.3	35+96.20 LT	36+10.54 LT
40.6	36+21.62 LT	36.62.51 LT
24.2	36+80.12 LT	37+05.16 LT

DEPRESSED CURB ENTRANCE (STD. NO.MC-102.01)		
QUANTITY (LF)	STA. START	STA. END
50.0	31+45.54 LT	31+95.61 LT
24.2	32+04.34 LT	32+28.48 LT
14.0	32+67.15 LT	32+81.15 LT
5.0	34+03.13 LT	34+08.13 LT
7.0	34+32.84 LT	34+36.09 LT
8.0	34+73.48 LT	34+78.44 LT
5.0	34+99.10 LT	35+44.10 LT
27.2	35+29.83 LT	35+57.03 LT
20.9	35+75.29 LT	35+96.20 LT
18.2	36+62.51 LT	36+80.82 LT
8.1	37+52.36 LT	37+59.21 LT
8.1	37+65.34 LT	37+68.91 LT
7.7	38+00.86 LT	38+44.24 LT
5.0	38+29.06 LT	38+34.11 LT

4 INCH THICK RESIDENTIAL SIDEWALK (STD. NO.MC-110.01)		
QUANTITY (SF)	STA. START	STA. END
226	30+50.00 LT	30+87.52 LT
64	33+39.68 LT	33+44.68 LT
48	33+60.87 LT	32+64.64 LT
83	34+12.64 LT	34+26.32 LT
119	34+85.10 LT	35+05.15 LT
412	35+97.93 LT	36+63.47 LT
425	36+79.79 LT	37+44.50 LT
83	38+09.21 LT	38+22.10 LT
58	38+40.18 LT	38+50.00 LT

SIDEWALK RAMP PERPENDICULAR (STD NO. MD-655.11)	
QUANTITY (EA)	STATION
1	35+01.60 LT
1	35+01.60 RT

SIDEWALK RAMP PARALLEL (STD NO. MD-655.12)	
QUANTITY (EA)	STATION
1	37+55.95 LT
1	37+65.50 LT
1	38+03.71 LT
1	38+31.59 LT

DETECTABLE WARNING SURFACE (STD NO. MD-655.40)	
QUANTITY (SF)	STATION
10	34+05.63 LT
13	34+33.59 LT
17	34+75.77 LT
10	35+01.60 LT
10	35+01.60 RT
15	37+55.94 LT
12	37+65.50 LT
12	38+03.71 LT
10	38+31.59 LT
18	38+31.59 LT (MEDIAN)

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MC-301.01)	
QUANTITY (SF)	STATION
310	35+43.53 LT
260	35+82.78 LT
115	36+71.66 LT

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MC-301.04)	
QUANTITY (SF)	STATION
336	31+70.81 LT
149	32+15.91 LT

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (SHA STD NO. MC-630.01)	
QUANTITY (SF)	STATION
105	32+74.15 LT

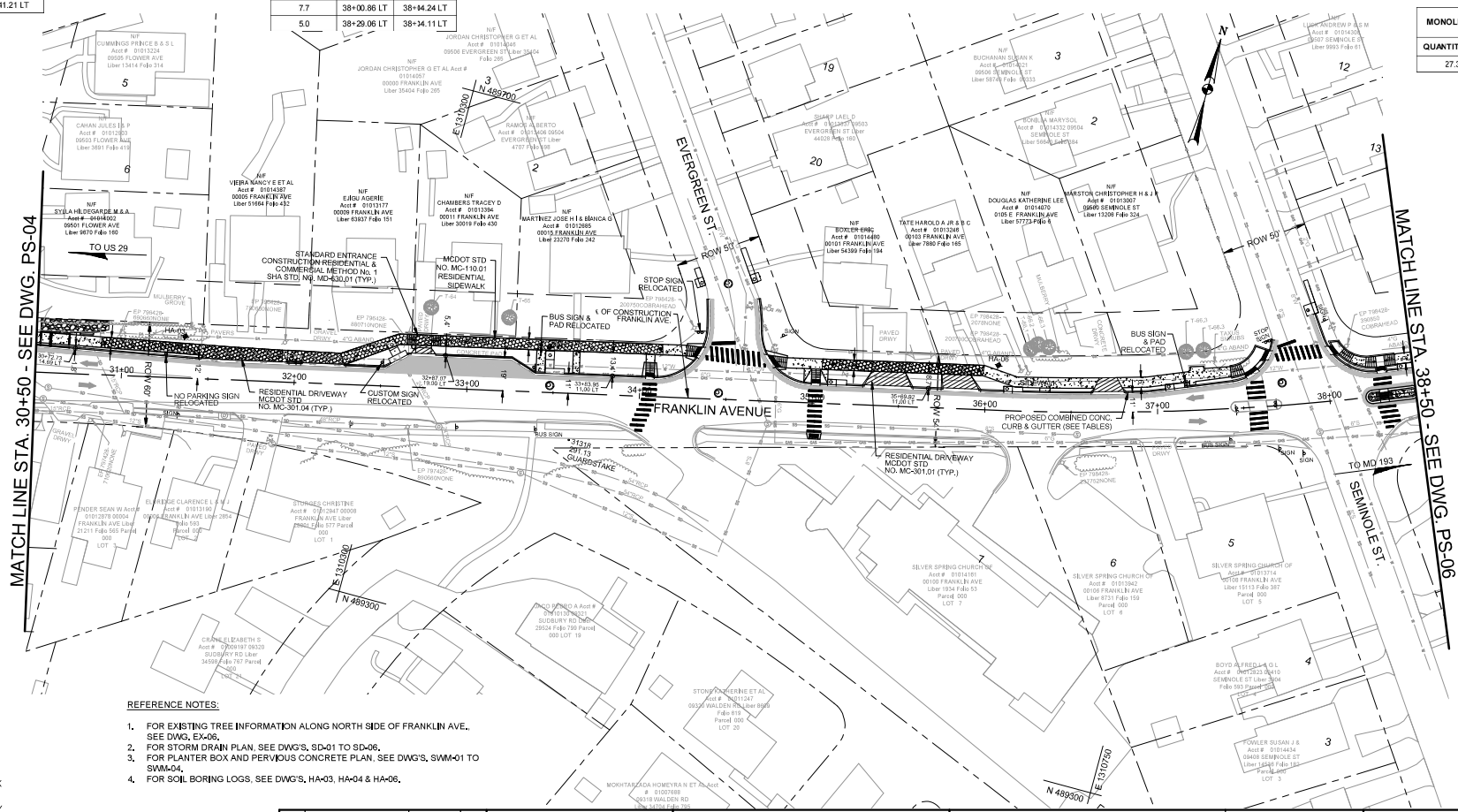
RESIDENTIAL SIDEWALK RAMP (STD NO. MC-112.01)	
QUANTITY (EA)	STATION
1	34+05.63 LT
1	34+33.80 LT
1	34+75.63 LT

FULL DEPTH BITUMINOUS CONCRETE PAVEMENT		
QUANTITY (SY)	STA. START	STA. END
159.6	30+50.00 LT	34+41.00 LT
78.3	34+65.00 LT	37+73.00 LT
17.6	37+92.00 LT	38+50.00 LT

4 INCH PERVIOUS CONCRETE SIDEWALK		
QUANTITY (SF)	STA. START	STA. END
362	30+87.52 LT	31+46.32 LT
1330	31+95.61 LT	34+12.64 LT
557	35+05.15 LT	35+97.93 LT

MEDIAN OPENING (STD NO. MC-114.01)	
QUANTITY (EA)	STATION
1	38+31.59

MONOLETHIC CONCRETE MEDIAN, 4' WIDE		
QUANTITY (LF)	STA. START	STA. END
27.3	38+24.44	38+51.72



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3. FOR PLANTER BOX AND PERVIOUS CONCRETE PLAN, SEE DWG'S. SWM-01 TO SWM-04.
4. FOR SOIL BORING LOGS, SEE DWG'S. HA-03, HA-04 & HA-06.

LEGEND:

- CONCRETE SIDEWALK
- CONCRETE DRIVEWAY
- PERVIOUS CONCRETE SIDEWALK
- FULL DEPTH PAVEMENT
- SOIL BORING LOCATIONS

0 30 60
SCALE: 1" = 30'

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date

Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date

SEDIMENT CONTROL SYMBOL

ACCEPT APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE OF APPROVAL UNLESS A SITE PLAN IS ACCEPTED PRIOR TO THE PLAN EXPIRATION DATE STATED

FRANKLIN AVENUE SIDEWALK

ROADWAY AND SIDEWALK PLAN
STA. 30+50 TO STA. 38+50

SCALE: AS SHOWN

PS-05

Project No.: TBD

19 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\15-20-PS-01-06.dwg
DATE: Mar 13, 2023 - 6:18pm

SHEET NO.	TOTAL SHEETS
20	109

COMBINATION CONCRETE CURB AND GUTTER TYPE A (STD. NO.MC-100.01)

QUANTITY (LF)	STA. START	STA. END
7.7	40+52.80 LT	40+60.51 LT
11	40+65.66 LT	40+74.66 LT
43.4	40+79.18 LT	40+82.89 LT
30.3	41+16.39 LT	41+16.39 LT
18.5	41+26.55 LT	41+35.34 LT
5.3	41+41.42 LT	41+46.71 LT
26.5	43+26.25 LT	43+35.29 LT
21.2	43+40.39 LT	43+54.18 LT
22.5	43+55.71 LT	43+65.06 LT
19.8	43+82.38 LT	43+84.65 LT
14.1	43+87.37 LT	43+97.63 LT
20.2	44+02.40 LT	44+22.37 LT

COMBINATION CONCRETE CURB AND GUTTER TYPE C (STD. NO.MC-101.01)

QUANTITY (LF)	STA. START	STA. END
38.5	38+52.32 LT	38+91.14 LT
27.8	39+15.37 LT	39+43.41 LT
90.5	39+61.64 LT	40+52.80 LT
105.3	41+46.71 LT	42+49.29 LT
67.2	42+61.79 LT	43+26.17 LT
49.9	44+28.38 LT	44+75.50 LT
48.3	44+86.50 LT	45+31.31 LT
18.7	45+46.31 LT	45+52.90 LT
45.1	45+67.90 LT	46+09.42 LT

DEPRESSED CURB ENTRANCE (STD. NO.MC-102.01)

QUANTITY (LF)	STA. START	STA. END
24.0	38+91.14 LT	39+15.37 LT
18.0	39+43.33 LT	39+61.64 LT
5.0	40+60.51 LT	40+65.56 LT
5.0	40+74.66 LT	40+79.16 LT
6.2	41+16.39 LT	41+20.55 LT
5.0	41+36.34 LT	41+41.42 LT
17.4	42+49.29 LT	42+61.79 LT
5.0	43+35.29 LT	43+40.39 LT
5.0	43+54.18 LT	43+55.71 LT
5.7	43+84.65 LT	43+87.37 LT
5.2	43+97.60 LT	44+02.40 LT
15.0	45+28.96 LT	45+43.81 LT
19.9	45+50.39 LT	45+70.33 LT

4 INCH THICK RESIDENTIAL SIDEWALK (STD. NO.MC-110.01)

QUANTITY (SY)	STA. START	STA. END
267	38+50.00 LT	38+95.22 LT
213	39+11.42 LT	39+47.46 LT
641	39+57.62 LT	40+67.18 LT
769	41+28.52 LT	42+49.29 LT
559	42+61.79 LT	43+46.77 LT
213	43+94.18 LT	45+28.51 LT
154	44+33.12 LT	44+68.35 LT
229	45+71.30 LT	46+09.42 LT

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MC-301.01)

QUANTITY (SF)	STATION
198.5	39+03.32 LT
144.2	39+52.54 LT

4 INCH PERVIOUS CONCRETE SIDEWALK

QUANTITY (SF)	STA. START	STA. END
857	44+28.52 LT	45+71.30 LT

SIDEWALK RAMP PERPENDICULAR (STD NO. MD-655.11)

QUANTITY (EA)	STATION
1	40+62.78 LT
1	40+75.41 LT
1	41+19.17 LT
1	41+28.65 LT
1	43+39.00 LT
1	43+54.27 LT
1	43+86.65 LT
1	44+00.12 LT

DETECTABLE WARNING SURFACE (STD NO. MD-655.40)

QUANTITY (SF)	STATION
10	40+61.54 LT
10	40+77.18 LT
12.6	41+19.17 LT
10	41+28.65 LT
10	43+28.66 LT
10	43+53.88 LT
11.8	43+86.66 LT
10	44+01.77 LT

7 INCH THICK PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS (STD NO. MC-301.05)

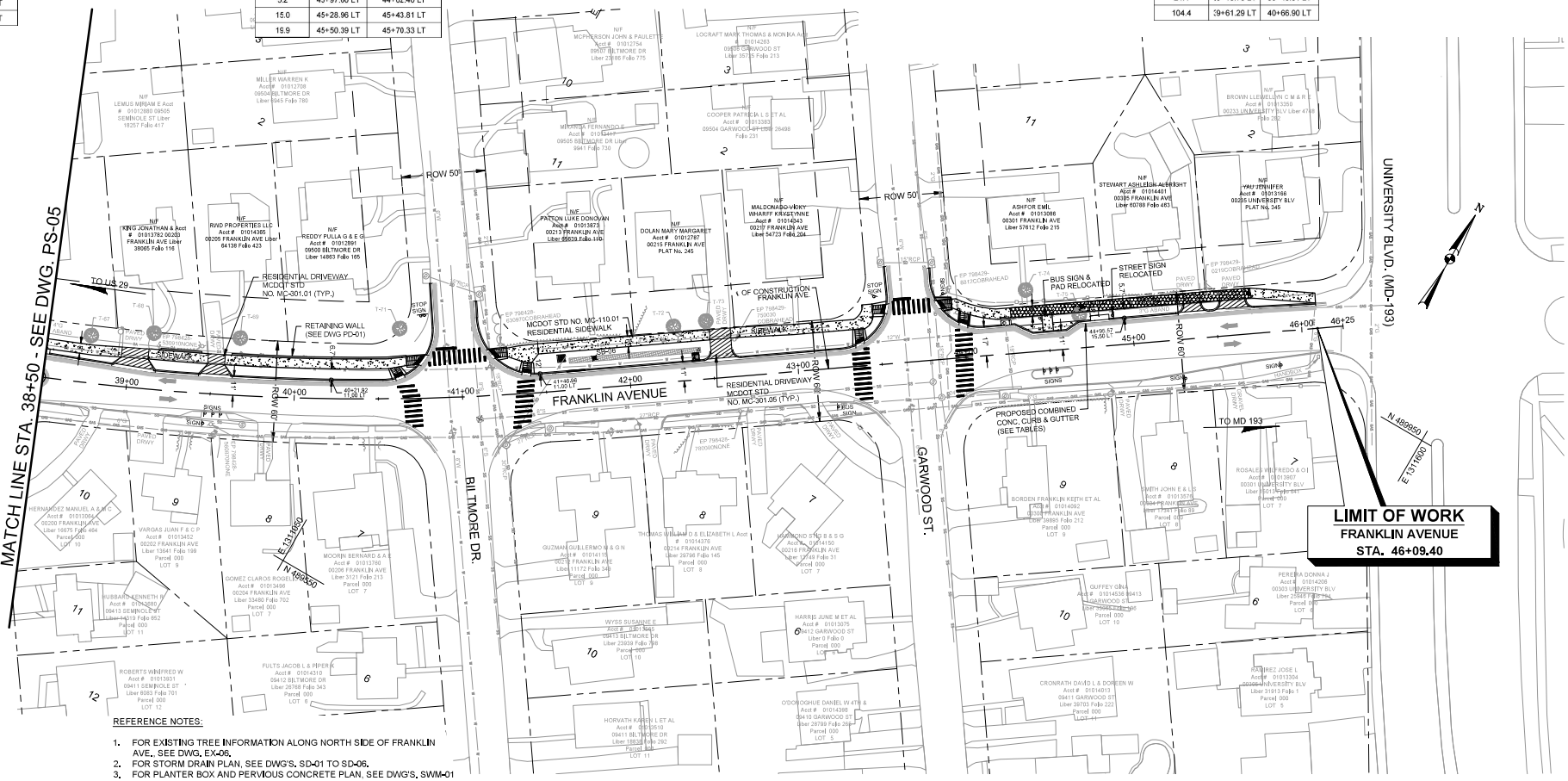
QUANTITY (SF)	STATION
223.0	42+55.54 LT
116.3	45+36.32 LT
171.1	45+60.40 LT

FULL DEPTH BITUMINOUS CONCRETE PAVEMENT

QUANTITY (SY)	STA. START	STA. END
77.1	38+50.00 LT	40+82.89 LT
57.1	41+10.39 LT	43+56.06 LT
57.4	43+82.38 LT	46+09.42 LT

REINFORCED RETAINING WALL

QUANTITY (LF)	STA. START	STA. END
24.4	39+18.70 LT	39+43.51 LT
104.4	39+61.29 LT	40+66.90 LT



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3. FOR PLANTER BOX AND PERVIOUS CONCRETE PLAN, SEE DWG'S. SWM-01 TO SWM-04.
4. FOR SOIL BORING LOGS, SEE DWG'S. SB-06 & SB-07.

LEGEND:

- CONCRETE SIDEWALK
- CONCRETE DRIVEWAY
- PERVIOUS CONCRETE SIDEWALK
- FULL DEPTH PAVEMENT
- SOIL BORING LOCATIONS

0 30 60
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NO.	REVISION	DATE	BY

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CONTACT:
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CONSTRUCTION SECTION
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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
SEE TITLE SHEET FOR SIGNATURES
Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

ROADWAY AND SIDEWALK PLAN
STA. 38+50 TO STA. 46+09.40

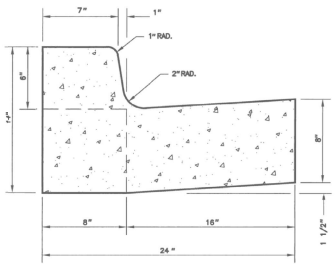
SCALE: AS SHOWN

PS - 06

Project No.: TBD — 20 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\XREF-100% Comments\15-20-PS-01-06.dwg
DATE: Mar 13, 2023 - 6:28pm

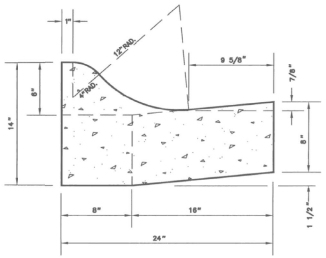
SHEET NO.	TOTAL SHEETS
21	109



GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
2. THIS STANDARD SHALL BE USED ON PRIMARY RESIDENTIAL, ARTERIAL AND BUSINESS DISTRICT ROADS AS WELL AS CURB RETURNS AND INLET THROATS.
3. WHENEVER STANDARD MC-101.01 CURB IS USED IN CONJUNCTION WITH THIS STANDARD, A TEN FOOT TRANSITION SHALL BE PROVIDED FROM STANDARD MC-101.01 TO STANDARD MC-101.01 FOR CURB RETURNS AND CURB SECTIONS WHICH INCLUDE INLETS.
4. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920. △1

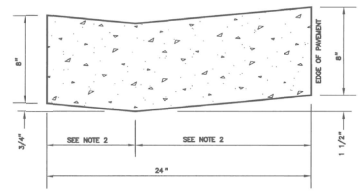
APPROVED 14 APR. 06 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION	△1 ASTM-C920 4/2006	COMBINATION CONCRETE CURB AND GUTTER TYPE A
for CHIEF, DIV. OF CAP. DEV.		STANDARD NO. MC-100.01



GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
2. THIS STANDARD SHALL BE USED ON PRIMARY, SECONDARY AND TERTIARY RESIDENTIAL ROADS EXCEPT AT CURB RETURNS AND INLET THROATS.
3. WHENEVER STANDARD MC-100.01 CURB IS USED IN CONJUNCTION WITH THIS STANDARD, A TEN FOOT TRANSITION SHALL BE PROVIDED FROM STANDARD MC-101.01 TO STANDARD MC-100.01 FOR CURB RETURNS AND CURB SECTIONS WHICH INCLUDE INLETS.
4. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920. △1

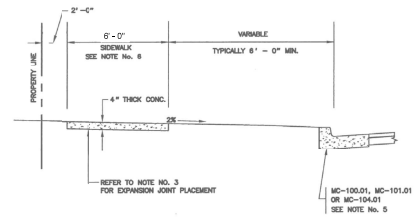
APPROVED 14 APR. 06 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION	△1 ASTM-C920 4/2006	COMBINATION CONCRETE CURB AND GUTTER TYPE C
for CHIEF, DIV. OF CAP. DEV.		STANDARD NO. MC-101.01



GENERAL NOTES

1. REFER TO MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.
2. THE DISTANCES FROM THE FLOWLINE TO THE FRONT AND BACK EDGE OF CURB SHALL BE ADJUSTED TO MATCH EXISTING CONDITIONS.
3. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCES SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920. △1

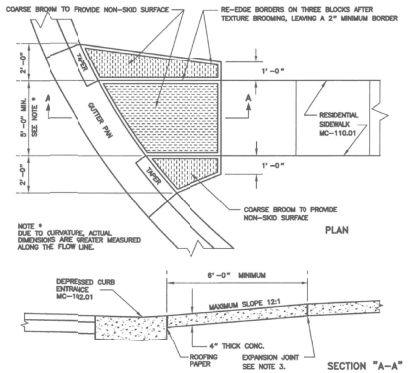
APPROVED 14 APR. 06 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION	△1 ASTM-C920 4/2006	DEPRESSED CURB ENTRANCE
for CHIEF, DIV. OF CAP. DEV.		STANDARD NO. MC-102.01



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. REFER TO THE APPLICABLE MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS FOR DETAILS AT DRIVEWAYS.
3. EXPANSION JOINTS SHALL HAVE A MAXIMUM SPACING OF 100 FEET AND BE LOCATED AT POINTS OF CURVATURE. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920. △1
4. SCORE THE CONCRETE TO A DEPTH OF 1/3 THE SLAB THICKNESS TO PROVIDE WEAKENED PLANE TRANSVERSE JOINTS AT 5'-0" INTERVALS.
5. REFER TO THE APPLICABLE ROAD STANDARD AND CURB AND GUTTER STANDARDS FOR OTHER OPTIONS.
6. SIDEWALK WIDTH SHALL BE 4'-0" FOR SECONDARY AND TERTIARY ROADWAYS.

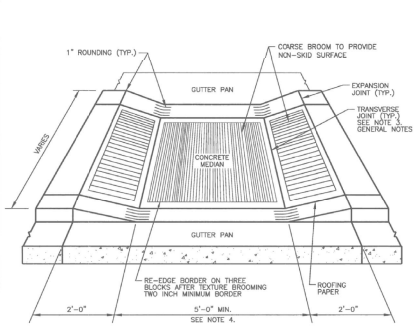
APPROVED 14 APR. 06 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.	△1 ASTM-C920 4/2006	RESIDENTIAL SIDEWALK CLOSED SECTION
for CHIEF, DIV. OF CAP. DEV.		STANDARD NO. MC-110.01



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIAL AND METHODS OF CONSTRUCTION.
2. SIDEWALK RAMPS SHOULD BE LOCATED AS INDICATED. HOWEVER, EXISTING SURFACE UTILITIES AND EXISTING OR PROPOSED GEOMETRICS MAY AFFECT PLACEMENT.
3. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH ASTM-C920. △1

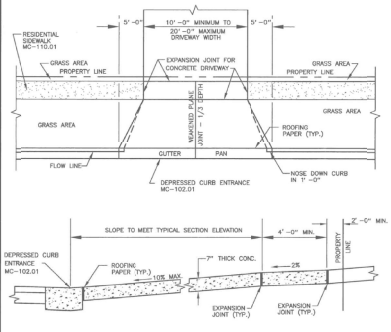
APPROVED 14 APR. 06 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION	△1 ASTM-C920 4/2006	RESIDENTIAL SIDEWALK RAMP
for CHIEF, DIV. OF CAP. DEV.		STANDARD NO. MC-112.01



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH ASTM-C920. △1
3. SCORE THE CONCRETE FOR THE TRANSVERSE JOINTS TO A DEPTH OF 1/3 OF THE THICKNESS TO PROVIDE A WEAKENED PLANE.
4. THE WIDTH MAY BE INCREASED TO MATCH THE WIDTH OF AN APPROACHING DRIVEWAY.

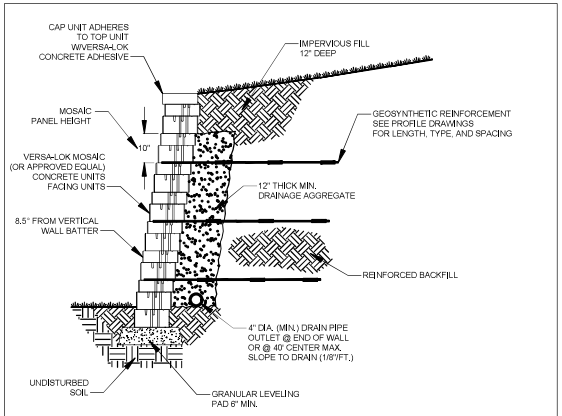
APPROVED 14 APR. 06 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION	△1 ASTM-C920 4/2006	MEDIAN OPENING
for CHIEF, DIV. OF CAP. DEV.		STANDARD NO. MC-114.01



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. PROVIDE WEAKENED PLANE JOINTS AT MAXIMUM INTERVALS OF 15'.
4. THE EXPANSION JOINTS SHALL BE PLACED AT LOCATIONS SHOWN.
5. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT, COMPLYING WITH ASTM-C920. △1

APPROVED 14 APR. 06 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.	△1 ASTM-C920 4/2006	RESIDENTIAL DRIVEWAY
for CHIEF, DIV. OF CAP. DEV.		STANDARD NO. MC-301.01



TYPICAL SECTION-REINFORCED RETAINING WALL

MOSAIC

SCALE: NONE

0 30 60

SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
CERTIFICATE OF AUTHORITY
18825 Study Grove Road, Rockville, MD, 20850
Phone: 301-250-1000 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

MISCELLANEOUS DETAILS – 1

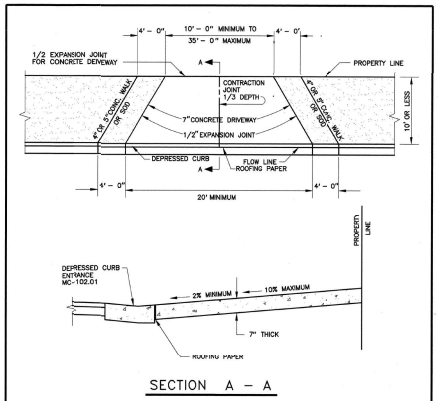
SCALE: AS SHOWN

PD - 01

Project No.: TBD 21 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\21-PD-01.dwg
DATE: Mar 03, 2023 - 6:48pm

SHEET NO.	TOTAL SHEETS
22	109



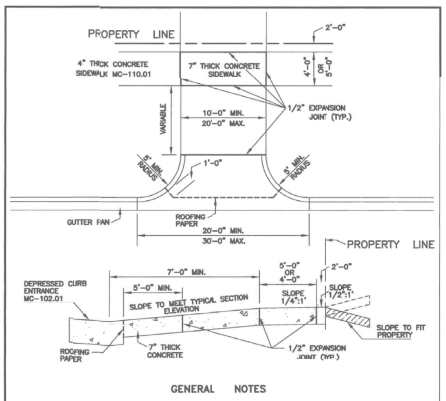
SECTION A – A

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. ALL DRIVEWA'S DEPRESSED 2" AT PROPERTY LINE WHEN USING 8" CURB.
4. PROVIDE WEAKENED PLANE JOINTS AT MAXIMUM INTERVALS OF 15'.

APPROVED JAN 5/96 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.		RESIDENTIAL DRIVEWAY LIMITED WIDTH
CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-301.04

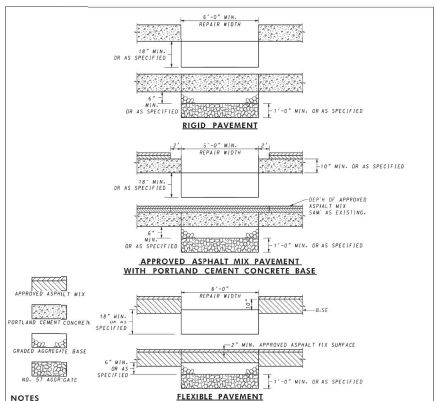
P:\DESIGN\MC3004 6-24-96 9:06:07 am EST



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. THE EXPANSION JOINTS SHALL BE PLACED AT LOCATIONS SHOWN.
4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMEX AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920.

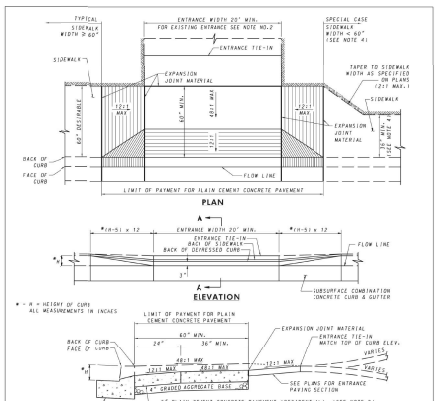
APPROVED 14 APR 06 DATE	REVISED RENAMED 04-27-2015 ⚠ ASTM-C920 4/2006	MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION		RESIDENTIAL DRIVEWAY WITH CURB RADIUS
CHIEF, DIV. OF CAP. DEV.		STANDARD NO. MC-301.05



NOTES

1. THIS STANDARD IS TO BE USED IN ACCORDANCE WITH SECTIONS 505 AND 522. THE ROADWAY SHALL BE PATCHED WITH THE SAME TYPE MATERIAL REMOVED UNLESS NOTED IN THE SPECIFICATIONS. PORTLAND CEMENT CONCRETE PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH STANDARDS 577.02, 577.03, 577.04, 577.05, 577.06, OR 577.10.
2. THE TOP 1 FT. OF THE TRENCH SHALL BE FILLED WITH NO. 57 AGGREGATE. TRENCH TO BE EXTENDED TO DITCH LINE.
3. WHEREVER A TRENCH CROSSES A CONCRETE ROADWAY THAT HAS JOINT INSTALLATIONS THE ENTIRE SLAB BETWEEN THE EDGE OF THE TRENCH AND NEAREST JOINT SHALL BE REMOVED IF THE DISTANCE IS LESS THAN 6 FT.
4. CLEAN AND WET EDGES OF JOINTS AND SUBBASE BEFORE PLACING CONCRETE. MATERIAL CONFORMING TO SECTION 503, CR-6, NO. 57 AGGREGATE, OR CLEAN SAND MAY BE USED TO FILL THE SUBBASE.
5. ALL WIDTH SUCH AS TRENCH BACKFILL, CUTTING OF CONCRETE, MATERIALS USED, ETC. SHALL BE IN ACCORDANCE WITH SECTIONS 201, 505 AND 522 OF THE SPECIFICATIONS OR AS SPECIFIED IN THE PERMIT.
6. ALL COSTS FOR SUMCUTS, TRENCH EXCAVATION, BACKFILL, APPROVED ASPHALT MIX, CONCRETE, MATERIAL CONFORMING TO SECTION 503, CR-6, NO. 57 AGGREGATE WRAPPED IN SE GEOTEXTILE, CLSM OR CAD, MATERIALS, TOOLS, LABOR AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE OF THE UTILITY ITEMS.
7. CLSM - CONTROLLED LOW STRENGTH MATERIAL.
8. NO. 57 AGGREGATE SHALL BE COMPLETELY WRAPPED IN SE GEOTEXTILE AS DIRECTED BY THE ENGINEER.

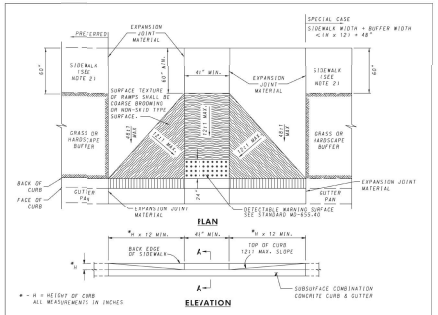
SPECIFICATION 505	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT	REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES
SHA State Highway Administration	APPROVAL • SHA REVISIONS / APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	STANDARD NO. MD 578.01
	APPROVAL 6-6-94 / APPROVAL 3-18-85; REVISED 3-25-16 / REVISED 2-23-16; REVISED / REVISED	



NOTES

1. FOR USE IN AREAS WHERE THERE IS SIDEWALK ADJACENT TO THE BACK OF CURB OR WHERE IT IS EXPECTED THAT SIDEWALK WILL BE ADDED IN THE FUTURE.
2. WHEN AN EXISTING ENTRANCE IS LESS THAN 20' IN WITH A UNIFORM TAPER SHALL BE CONSTRUCTED TO TIE INTO THE EXISTING ENTRANCE AS DIRECTED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL TO BE INSTALLED IN ACCORDANCE WITH STD. MD-655.01.
4. WHERE 60" SIDEWALK CAN NOT BE PROVIDED, 36" MIN. MAY BE USED AS LONG AS PASSING ZONES ARE PROVIDED IN ACCORDANCE WITH STD. MD-655.02.
5. TYPE A AND B CURB AND THE CURB FOR TYPE A, B, AND D COMBINATION CURB AND GUTTER SHALL BE DEPRESSED AS SHOWN ON STD. 620.02-01 TYPE C. PAYMENT FOR DEPRESSING THE CURB SHALL BE AS SPECIFIED ON STD. 620.03 NOTE C.
6. SIDEWALK WIDTH IS TO BE MEASURED FROM THE BACK OF CURB TO THE BACK OF SIDEWALK.
7. RAMP SLOPES MUST BE CALCULATED USING THE HORIZONTAL PLANES. USING ONLY THE RISE-OVER-RUN METHOD IS INSUFFICIENT FOR DETERMINING SLOPE (ANY VARIANCE FROM THE HORIZONTAL PLANE OF THE SURROUNDING ROADWAY FACE) TT MUST ALSO BE DETERMINED AND ACCOUNTED FOR).
8. USE MIX 9 UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

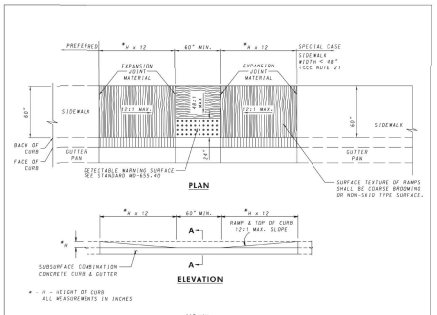
SPECIFICATION	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT	STANDARD ENTRANCE CONSTRUCTION RESIDENTIAL & COMMERCIAL METHOD NO.1
SHA State Highway Administration	APPROVAL • SHA REVISIONS / APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	STANDARD NO. MD 630.01
	APPROVAL 5-10-84 / APPROVAL 3-31-84; REVISED 6-17-97 / REVISED; REVISED 1-3-14 / REVISED 5-20-14; REVISED 6-14-16 / REVISED 6-8-16	



NOTES

1. TO BE USED ON WIDE SIDEWALKS OR SIDEWALKS WITH SIGNIFICANT SEPARATION FROM THE ROADWAY WHERE THE GEOMETRY SPECIFIED IN THE DETAILS ABOVE CAN BE SATISFIED. MAY BE MODIFIED TO SUIT A PARTICULAR LOCATION.
2. WHERE 60" SIDEWALK CAN NOT BE PROVIDED, A DESIGN WAIVER MUST BE REQUESTED
3. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL, OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
4. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH STD. MD-655.01.
5. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM STANDARD CASES.
6. TRANSITION PANELS TO TIE INTO EXISTING SIDEWALK MUST BE A MINIMUM OF 5' IN LENGTH.

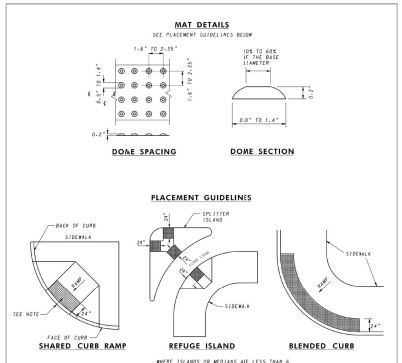
SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT	SIDEWALK RAMPS PERPENDICULAR
SHA State Highway Administration	APPROVAL • SHA REVISIONS / APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	STANDARD NO. MD 655.11
	APPROVAL 2-10-04 / APPROVAL 3-31-04; REVISED 3-25-08 / REVISED 4-5-04; REVISED 1-8-14 / REVISED 5-20-14; REVISED / REVISED	



NOTES

1. TO BE USED WHERE SIDEWALK IS ADJACENT TO THE CURB. THIS STANDARD MAY BE MODIFIED TO SUIT A PARTICULAR LOCATION.
2. WHERE 60" SIDEWALK CAN NOT BE PROVIDED, A DESIGN WAIVER MUST BE REQUESTED.
3. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL, OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL. THE CROSS-SLOPE OF THE LANDING AREA CANNOT EXCEED GRADE OF ROADWAY.
4. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH STD. MD-655.01.
5. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM STANDARD CASES.
6. TRANSITION PANELS TO TIE INTO EXISTING SIDEWALK MUST BE A MINIMUM OF 5' IN LENGTH

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT	SIDEWALK RAMPS PARALLEL
SHA State Highway Administration	APPROVAL • SHA REVISIONS / APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	STANDARD NO. MD 655.12
	APPROVAL 2-10-04 / APPROVAL 3-31-04; REVISED 3-25-08 / REVISED 4-5-04; REVISED 1-3-14 / REVISED 5-20-14; REVISED / REVISED	



NOTES

1. THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 TO 8 INCHES FROM THE FACE OF CURB.
2. FOR SEWER APPLICATIONS DETECTABLE WARNING SHALL BE PLACED SUCH THAT THE DOMES CLOSEST TO THE BACK OF CURB ARE NO LESS THAN 0.5' AND NO MORE THAN 3.0' FROM THE BACK OF CURB. TRUNCATED DOME SURFACES SHALL BE FABRICATED TO PROVIDE FULL DOMES ONLY.
3. DETECTABLE WARNING SURFACE SHALL BE PAID FOR IN ACCORDANCE WITH SECTION 611 OF THE SPECIFICATIONS.
4. DETECTABLE WARNING SURFACES ARE REQUIRED AT STREET CROSSING & SIGNALIZED INTERSECTIONS.

SPECIFICATION 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT	DETECTABLE WARNING SURFACES
SHA State Highway Administration	APPROVAL • SHA REVISIONS / APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	STANDARD NO. MD 655.40
	APPROVAL 4-17-06 / APPROVAL 6-5-06; REVISED / REVISED; REVISED / REVISED	

SHELADIA Engineers, Architects Development Consultants
18825 Brady Grove Road, Rockville, MD, 20850
Phone: 301-570-1900 Fax 301-416-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

MISCELLANEOUS DETAILS – 2

SCALE: AS SHOWN

PD - 02

Project No.: TBD 22 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\22-PD-02.dwg
DATE: Mar 06, 2023 - 9:34am

SHEET NO.	TOTAL SHEETS
23	109

REFERENCE NOTES:

1. SEE DWG'S. XS-01 THROUGH XS-23 FOR SECTION VIEWS.
2. CONTRACTOR SHALL NOT WORK OUTSIDE THE LOD BOUNDARY AS SHOWN ABOVE.

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
14870 Shady Grove Road, Rockville, MD, 20850
Phone: 301-963-3333 Fax: 301-963-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
SCALE:

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TERMINATION
NO EXCEPT APPROVAL BY THE PLANNING BOARD ONE YEAR FROM THE DATE OF ABOVE SIGNATURE, SUBMITTED PLANS SHALL CONFORM EXACTLY TO THE PLANS PREVIOUSLY STAMPED

FRANKLIN AVENUE SIDEWALK

GRADING PLAN

STA. 0+00 TO STA. 7+50

SCALE : AS SHOWN

GP-01

Project No.: TBD 23 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\23-28-GP-01-06.dwg
DATE: Mar 14, 2023 - 5:16pm

SHEET NO.	TOTAL SHEETS
24	109

REFERENCE NOTES:

1. SEE DWG'S. XS-01 THROUGH XS-23 FOR SECTION VIEWS.
2. CONTRACTOR SHALL NOT WORK OUTSIDE THE LOD BOUNDARY AS SHOWN ABOVE.

0 30 60
SCALE: 1" = 30'

Engineers, Architects Development Consultants
SHELADIA
14835 Shady Grove Road, Rockville, MD, 20850
Phone: 301-253-3333 Fax: 301-343-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
SCALE: 1" = 30'

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT.

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TERMINATION

NO EXCEPT APPROVAL OF THE PLAN SHALL BE VALID FOR ONE YEAR FROM THE DATE OF ABOVE SIGNATURE. ADDITIONAL FINES MAY BE CHARGED DUE TO THE PLAN NOT BEING ACTIVELY PURSUED.

FRANKLIN AVENUE SIDEWALK
GRADING PLAN
STA. 7+50 TO STA. 15+00

SCALE : AS SHOWN

GP-02

Project No.: TBD. 24 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\23-28-GP-01-06.dwg
DATE: Mar 14, 2023 - 5:16pm

SHEET NO.	TOTAL SHEETS
25	109

REFERENCE NOTES:

1. SEE DWG'S. XS-01 THROUGH XS-23 FOR SECTION VIEWS.
2. CONTRACTOR SHALL NOT WORK OUTSIDE THE LOD BOUNDARY AS SHOWN ABOVE.

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18005 Shady Grove Road, Rockville, MD, 20866
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www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL STRATEGY

MCDPS APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE OF APPROVAL. IF CONSTRUCTION HAS NOT STARTED VALIDATE THE PLAN BEFORE CONTINUING

FRANKLIN AVENUE SIDEWALK

GRADING PLAN

STA. 15+00 TO STA. 22+00

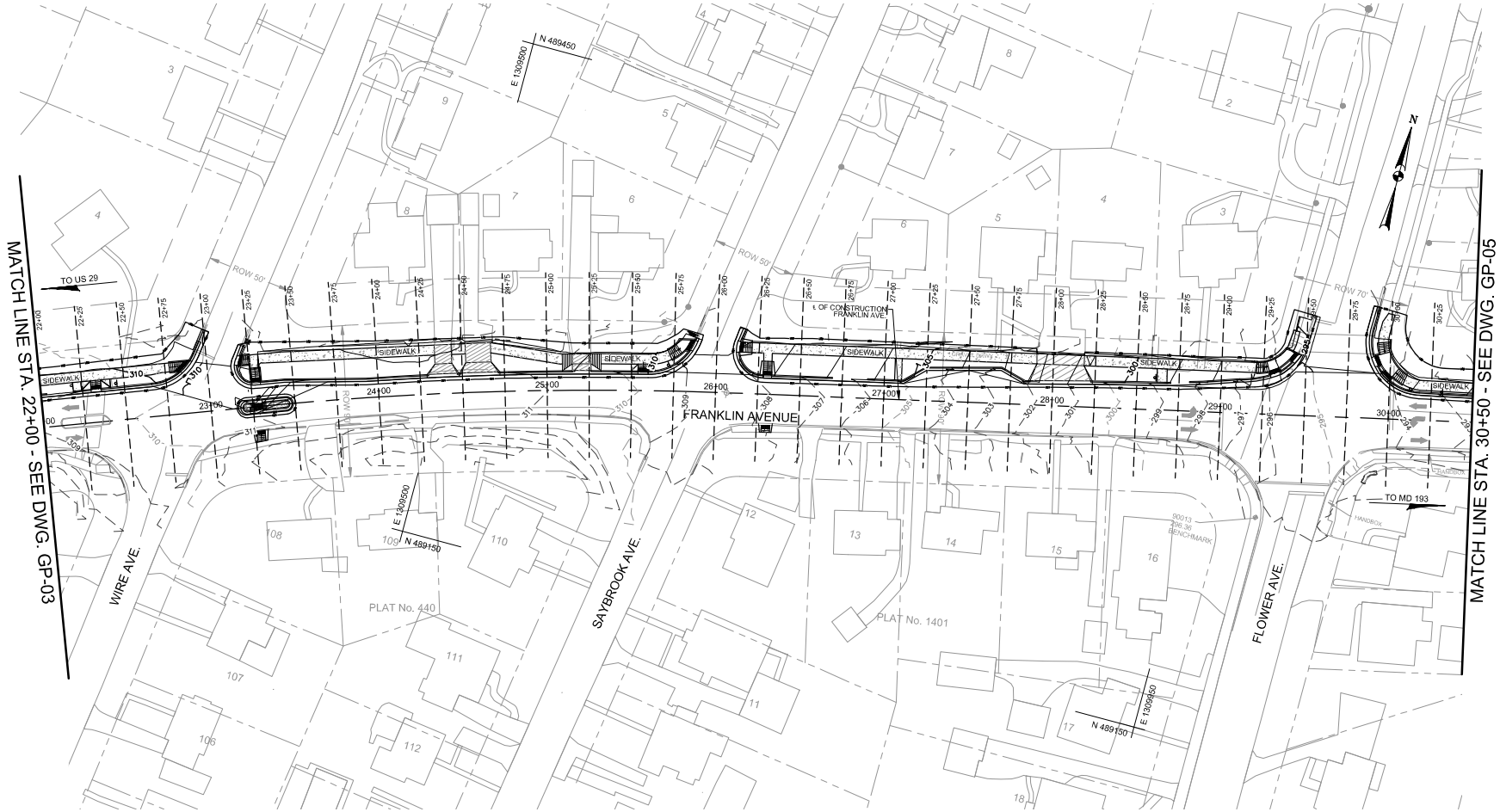
SCALE: AS SHOWN

GP-03

Project No.: TBD 25 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\23-28-GP-01-06.dwg
DATE: Mar 14, 2023 - 5:17pm

SHEET NO.	TOTAL SHEETS
26	109



REFERENCE NOTES:

1. SEE DWG'S. XS-01 THROUGH XS-23 FOR SECTION VIEWS.
2. CONTRACTOR SHALL NOT WORK OUTSIDE THE LOD BOUNDARY AS SHOWN ABOVE.

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
Corporation
13825 Shady Grove Road, Rockville, MD, 20850
Phone: 301-990-3333 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL INSPECTOR

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

GRADING PLAN

STA. 22+00 TO STA. 30+50

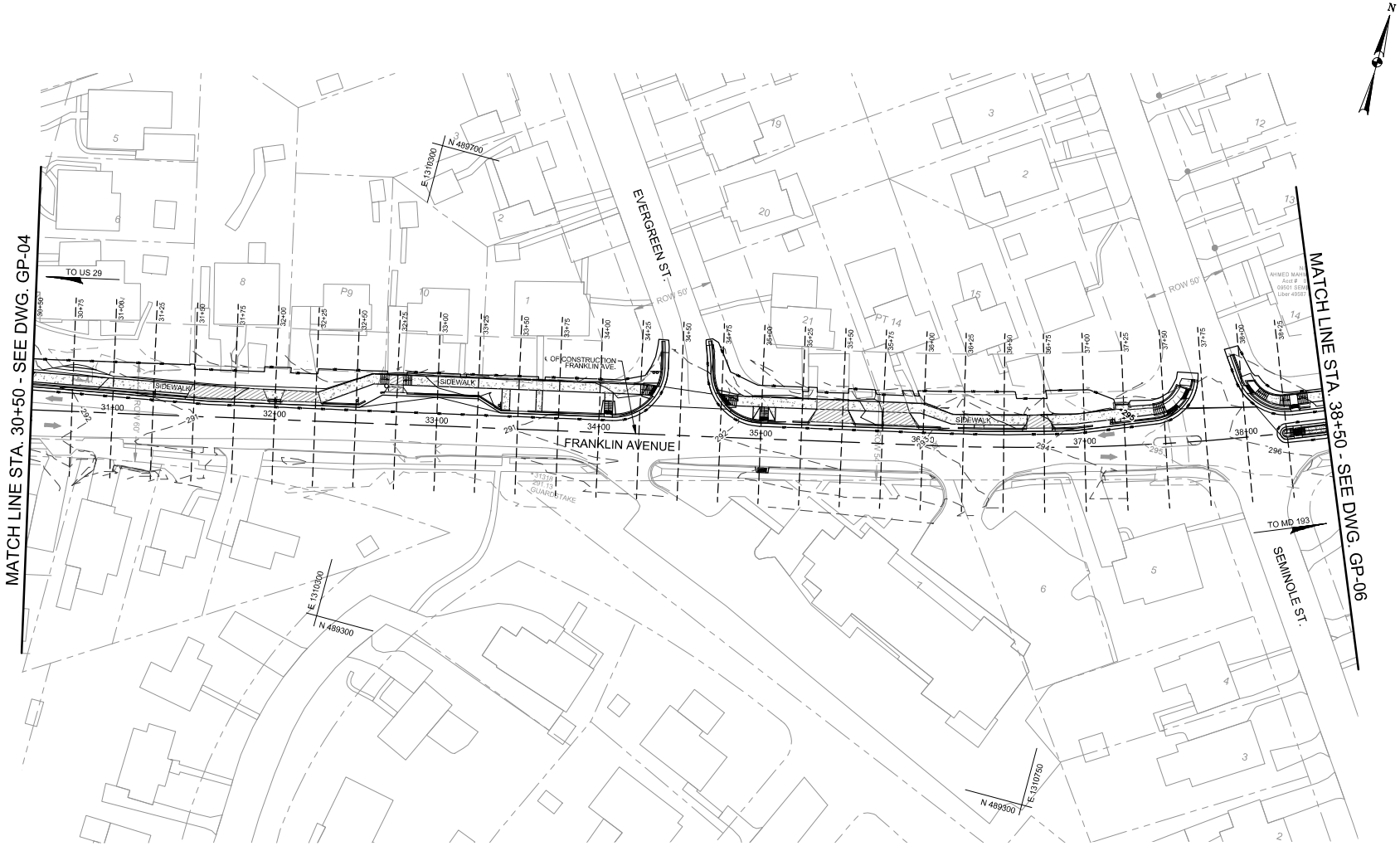
SCALE: AS SHOWN

GP-04

Project No.: TBD — 26 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\23-28-GP-01-06.dwg
DATE: Mar 14, 2023 - 5:18pm

SHEET NO.	TOTAL SHEETS
27	109



REFERENCE NOTES:

1. SEE DWG'S. XS-01 THROUGH XS-23 FOR SECTION VIEWS.
2. CONTRACTOR SHALL NOT WORK OUTSIDE THE LOD BOUNDARY AS SHOWN ABOVE.

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18005 Shady Grove Road, Rockville, MD, 20866
Phone: 301-990-3333 Fax: 301-948-7174
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NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL PERMIT NO.

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

GRADING PLAN

STA. 30+00 TO STA. 38+50

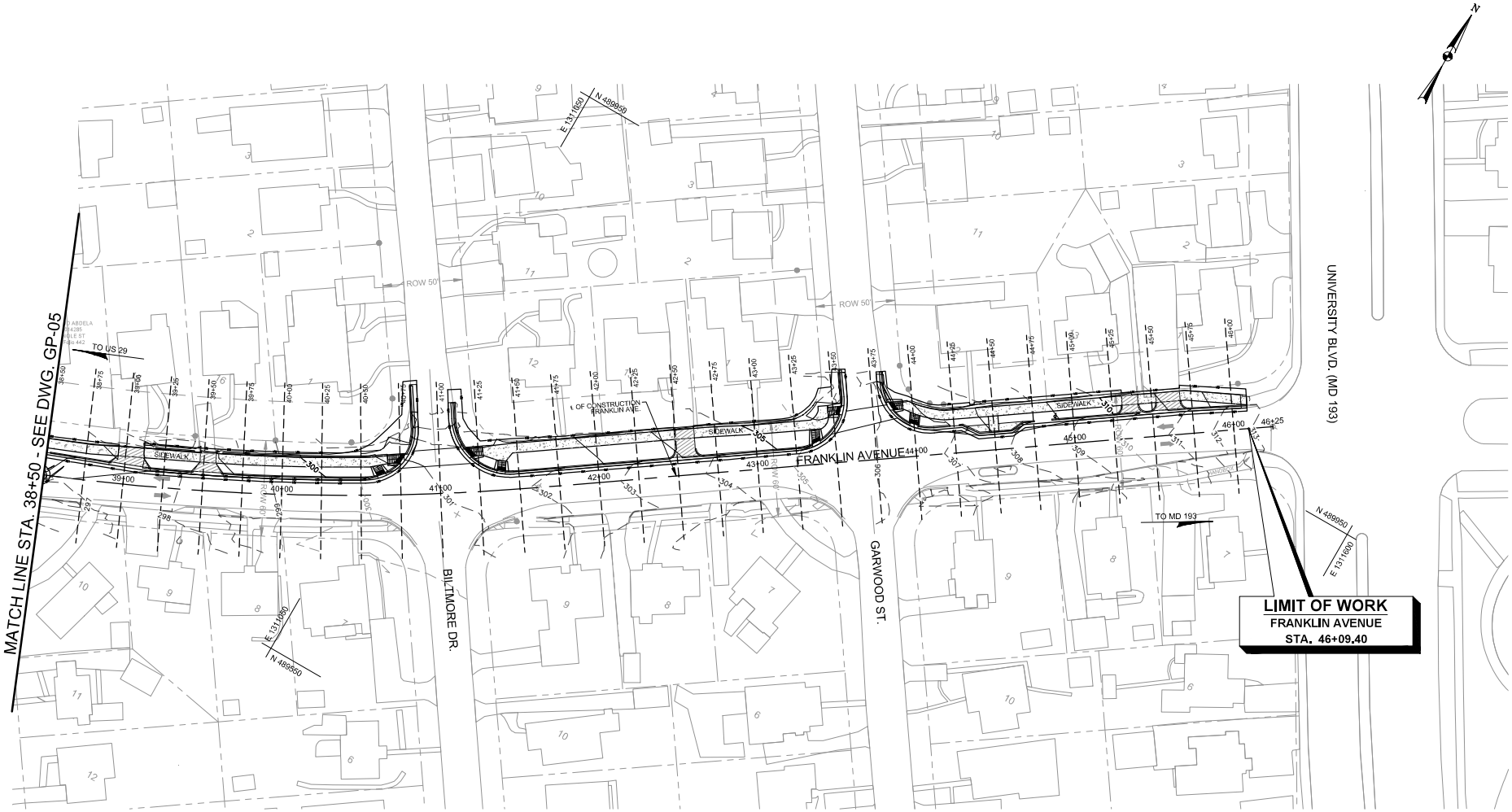
SCALE: AS SHOWN

GP-05

Project No.: TBD

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\23-28-GP-01-06.dwg
DATE: Mar 14, 2023 - 5:18pm

SHEET NO.	TOTAL SHEETS
28	109



REFERENCE NOTES:

1. SEE DWG'S. XS-01 THROUGH XS-23 FOR SECTION VIEWS.
2. CONTRACTOR SHALL NOT WORK OUTSIDE THE LOD BOUNDARY AS SHOWN ABOVE.

0 30 60
SCALE: 1" = 30'

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NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL CERTIFICATE

AGENCY APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL UNLESS PERMITS HAVE BEEN ISSUED. DELETE THE PLAN IF PERMITS ARE NOT ISSUED.

FRANKLIN AVENUE SIDEWALK

GRADING PLAN

STA. 38+50 TO STA. 46+09.40

SCALE: AS SHOWN

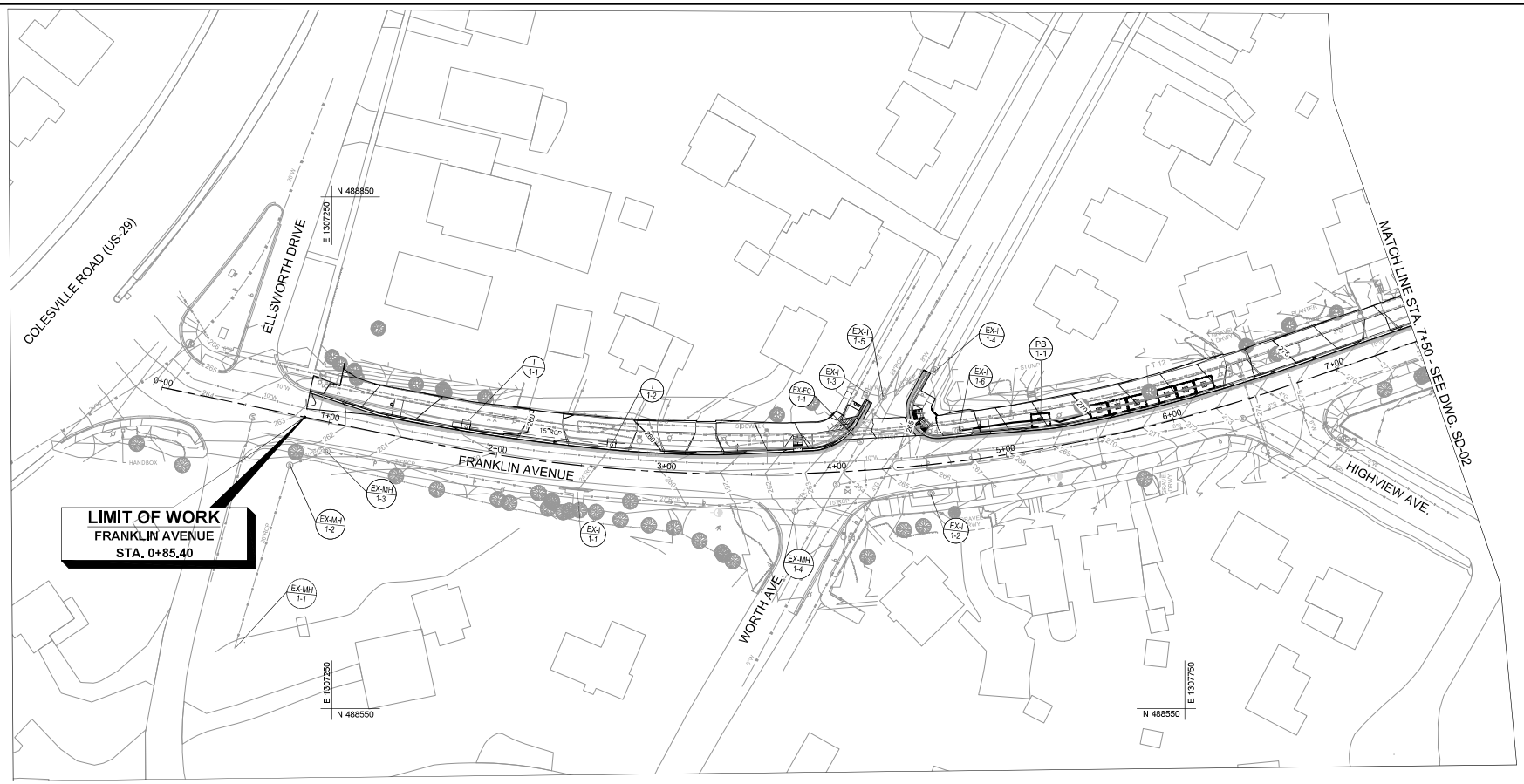
GP - 06

Project No.: TBD

28 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\23-28-GP-01-06.dwg
DATE: Mar 14, 2023 - 5:18pm

SHEET NO.	TOTAL SHEETS
29	109



GENERAL NOTES FOR UTILITIES

1. THE LOCATION OF THE UTILITIES SHOWN ON THE PLANS ARE BASED ON FIELD SURVEY DATA/OR RECORD DRAWINGS ON THE ORIGINAL LOCATIONS. THE INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND LOCATIONS OF THE UTILITIES SHOWN IS APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UTILITIES WELL IN ADVANCE OF CONDUCTING CONSTRUCTION OPERATIONS WHICH COULD DAMAGE THESE FACILITIES. IN THE AREAS WHERE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES.
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LEGEND

- BMP-PERVIOUS CONCRETE SIDEWALK
- BMP-BIOSWALE
- BMP-PLANTER BOX
- PROPOSED STRUCTURE NUMBER (I 1-1)
- EXISTING STRUCTURE NUMBER (EX-I 1-1)
- PROPOSED PIPE
- EX. CONTOUR
- PROPOSED CONTOUR

0 30 60
SCALE: 1" = 30'

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NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

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CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date

Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date

SEDIMENT CONTROL PERMIT NO.

NO EXIT APPROVAL OF THE PLANS IS GIVEN ONE YEAR FROM THE DATE SIGNED BY THE DIRECTOR OR DESIGNEE UNLESS SIGNED FOR ON BEHALF THEREOF BEFORE THAT TIME.

FRANKLIN AVENUE SIDEWALK

STORM DRAIN PLAN

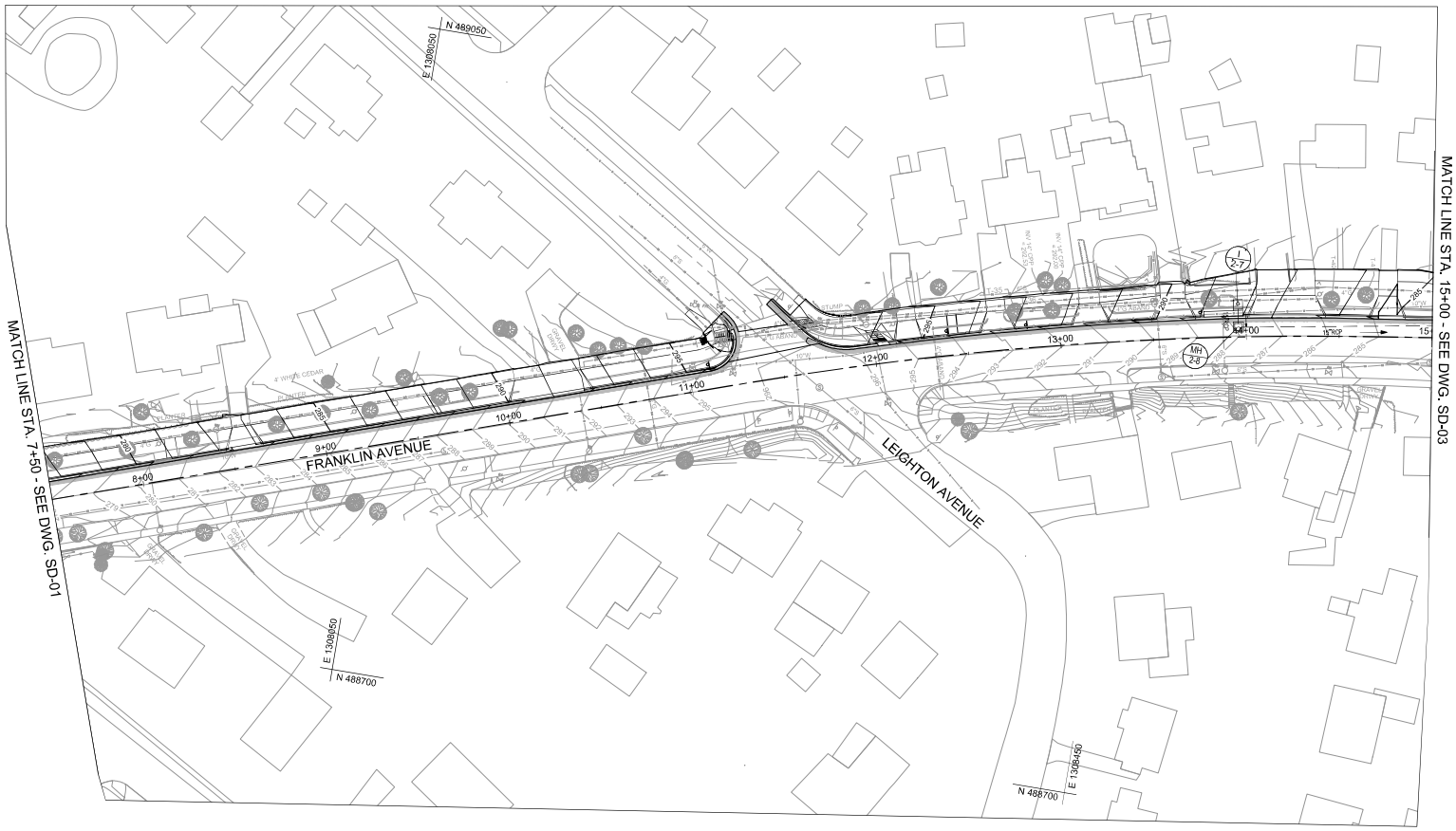
SCALE :

SD-01

Project No.: TBD — 29 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\PSD-Sheet.dwg
DATE: Mar 15, 2023 - 9:47am

SHEET NO.	TOTAL SHEETS
30	109



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LEGEND

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- BMP-BIOSWALE
- BMP-PLANTER BOX
- I 1-1 — PROPOSED STRUCTURE NUMBER
- EX-I 1-1 — EXISTING STRUCTURE NUMBER
- PROPOSED PIPE
- EX. CONTOUR
- PROPOSED CONTOUR

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
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NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL PERMIT No.

NO SITE WORK MAY BEGIN UNTIL A VALID PERMIT IS ISSUED. ALL WORK MUST BE DONE IN ACCORDANCE WITH THE APPROVED PLANS AND THE PERMIT REQUIREMENTS.

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

STORM DRAIN PLAN

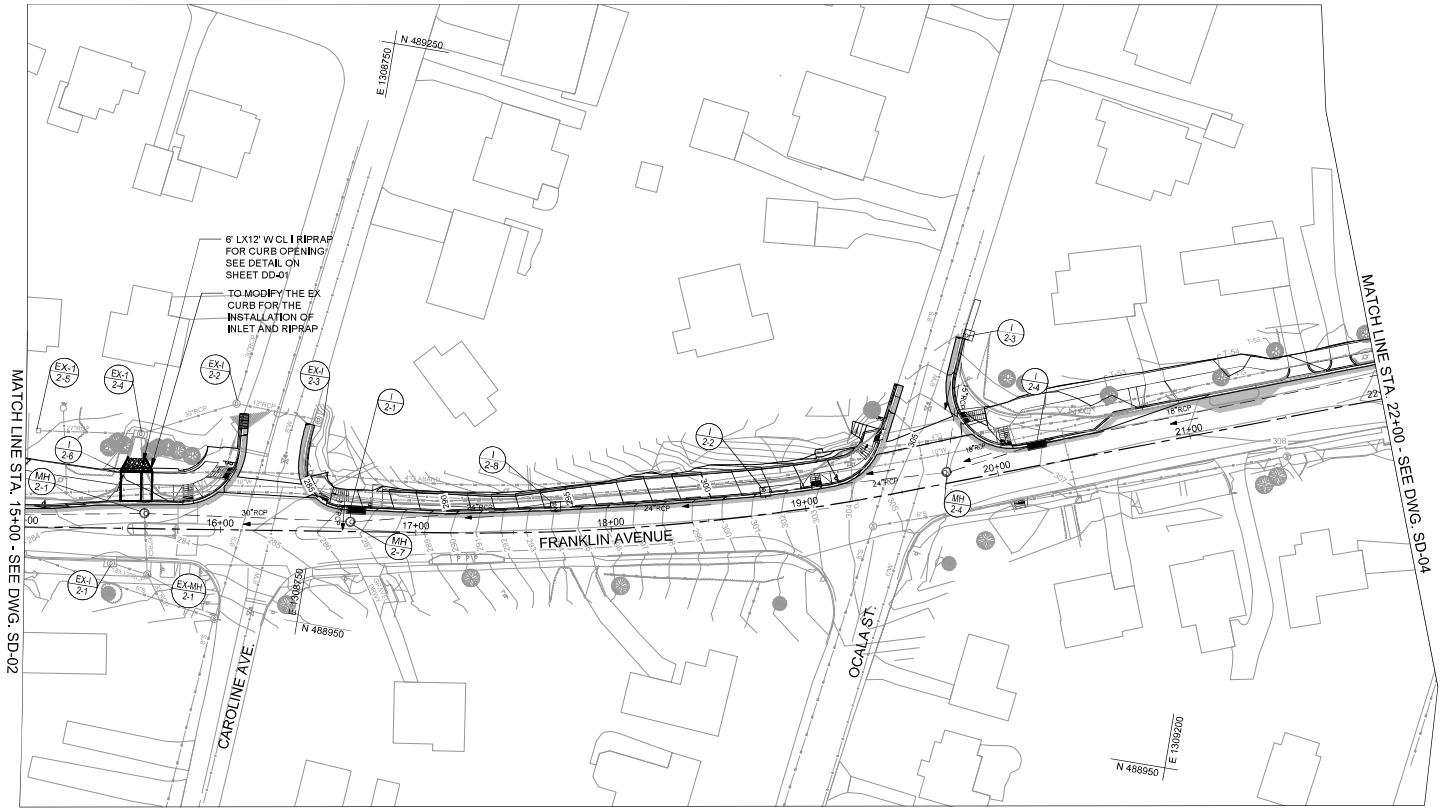
SCALE :

SD-02

Project No.: TBD

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\SD-Sheet.dwg
DATE: Mar 15, 2023 - 9:48am

SHEET NO.	TOTAL SHEETS
31	109



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LEGEND

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- BMP-PLANTER BOX
- PROPOSED STRUCTURE NUMBER (I 1-1)
- EXISTING STRUCTURE NUMBER (EX-I 1-1)
- PROPOSED PIPE
- EX. CONTOUR
- PROPOSED CONTOUR

0 30 60
SCALE: 1" = 30'

SHELADIA Engineering Inc.
Engineers, Architects Development Consultants
18035 Sandy Grove Road, Rockville, MD, 20850
Phone: 301-525-3939 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
MCDPS

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL PERMIT No.
MCDOT APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE OF THE MCDOT APPROVAL SHOWN ABOVE OR UNTIL DEADLINE FOR PLAN EXTENSIONS EXPIRES

FRANKLIN AVENUE SIDEWALK

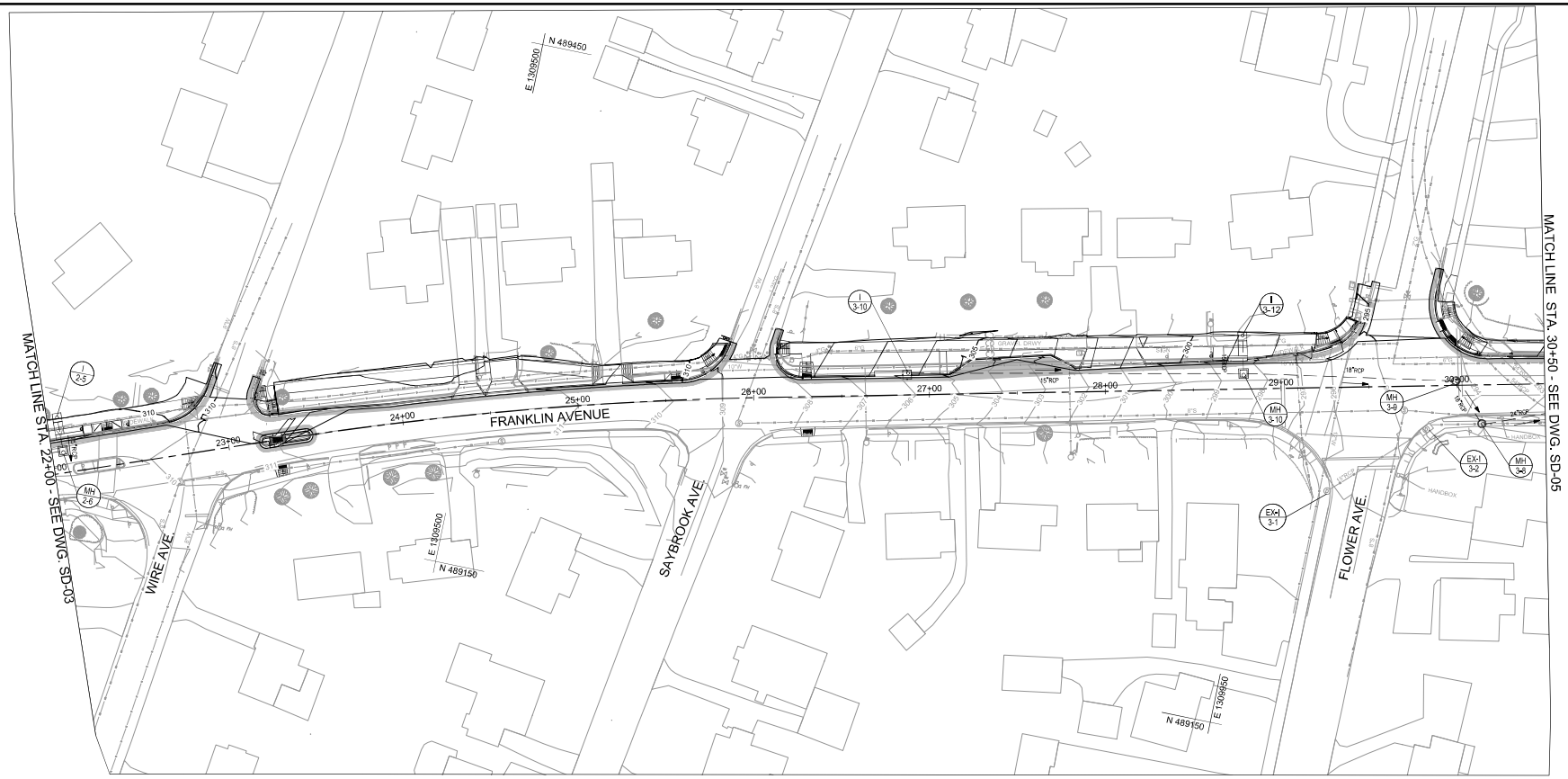
STORM DRAIN PLAN

SCALE : SD-03

Project No.: TBD 31 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pSD-Sheet.dwg
DATE: Mar 15, 2023 - 9:49am

SHEET NO.	TOTAL SHEETS
32	109



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- PROPOSED STRUCTURE NUMBER (I 1-1)
- EXISTING STRUCTURE NUMBER (EX-I 1-1)
- PROPOSED PIPE
- EX. CONTOUR
- PROPOSED CONTOUR

0 30 60
SCALE: 1" = 30'

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Phone: 301-525-3939 Fax: 301-948-7174
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NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL PERMIT NO.

NO DEFT APPROVAL OF THE PLANS IS A CONTRACT ONE VEAR FROM THE DATE OF THE DEPT. OF PERMITTING SERVICES FOR ANY SITE WHICH DOES NOT HAVE AN ISSUED PERMIT TO PERFORM WORK WITHIN THE PROJECT.

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

STORM DRAIN PLAN

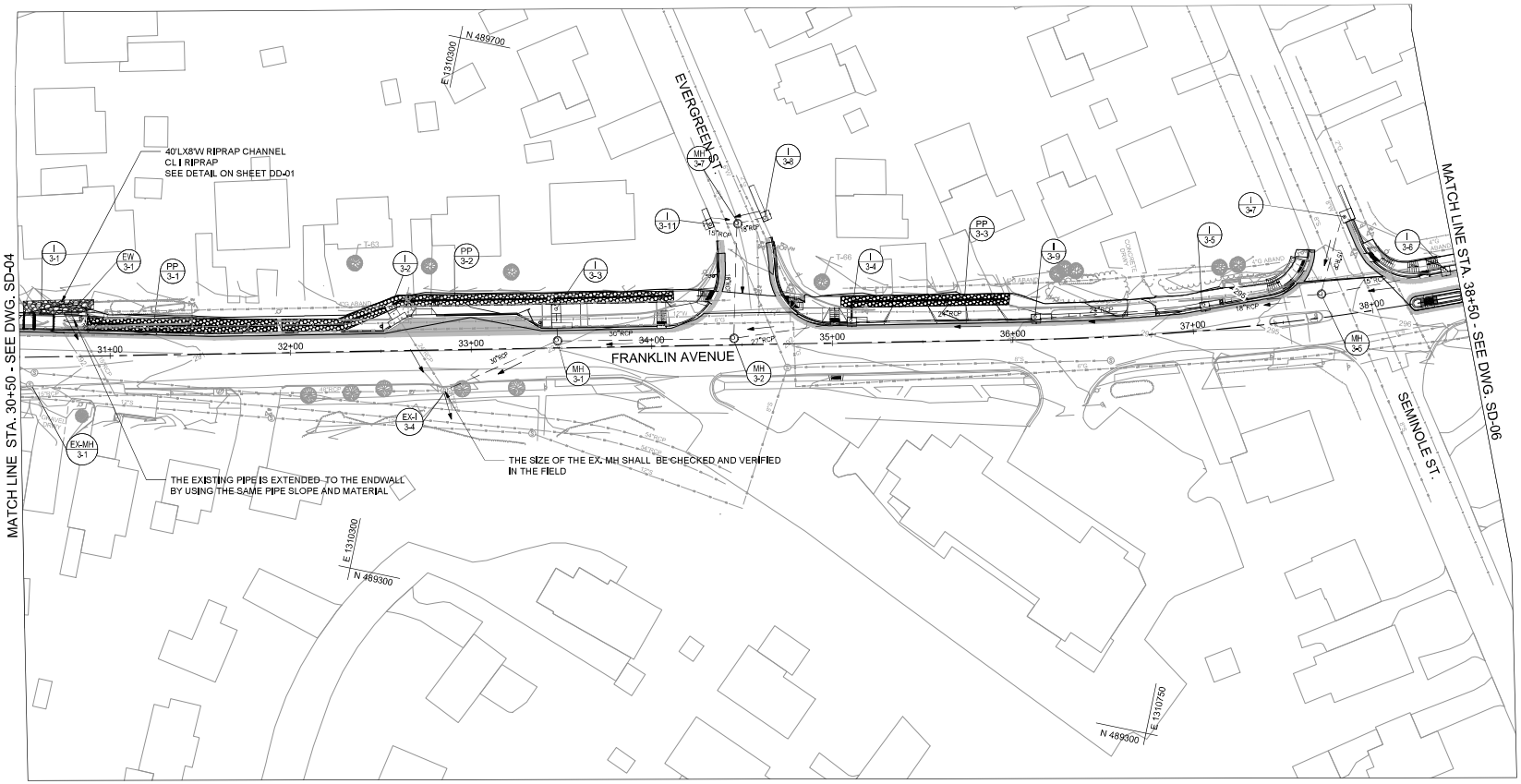
SCALE :

SD-04

Project No.: TBD

FILE: K:\5547 MC DOT\T12 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\SD-Sheet.dwg
DATE: Mar 15, 2023 - 9:50am

SHEET NO.	TOTAL SHEETS
33	109



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- I 1-1 — PROPOSED STRUCTURE NUMBER
- EX-I 1-1 — EXISTING STRUCTURE NUMBER
- PROPOSED PIPE
- EX. CONTOUR
- PROPOSED CONTOUR

0 30 60
SCALE: 1" = 30'

Engineers, Architects Development Consultants
SHELADIA
Maryland Corp.
18825 Sandy Grove Road, Rockville, MD, 20850
Phone: 301-525-1935 Fax: 301-445-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
MCDPS

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL PERMIT NO.

NO EXIT APPROVAL BY THE PLANNING BOARD ONE YEAR FROM THE DATE OF THE PLANNING BOARD'S FINAL EXIT APPROVAL UNLESS THE PLANNING BOARD HAS EXTENDED THE VALIDITY PERIOD

FRANKLIN AVENUE SIDEWALK

STORM DRAIN PLAN

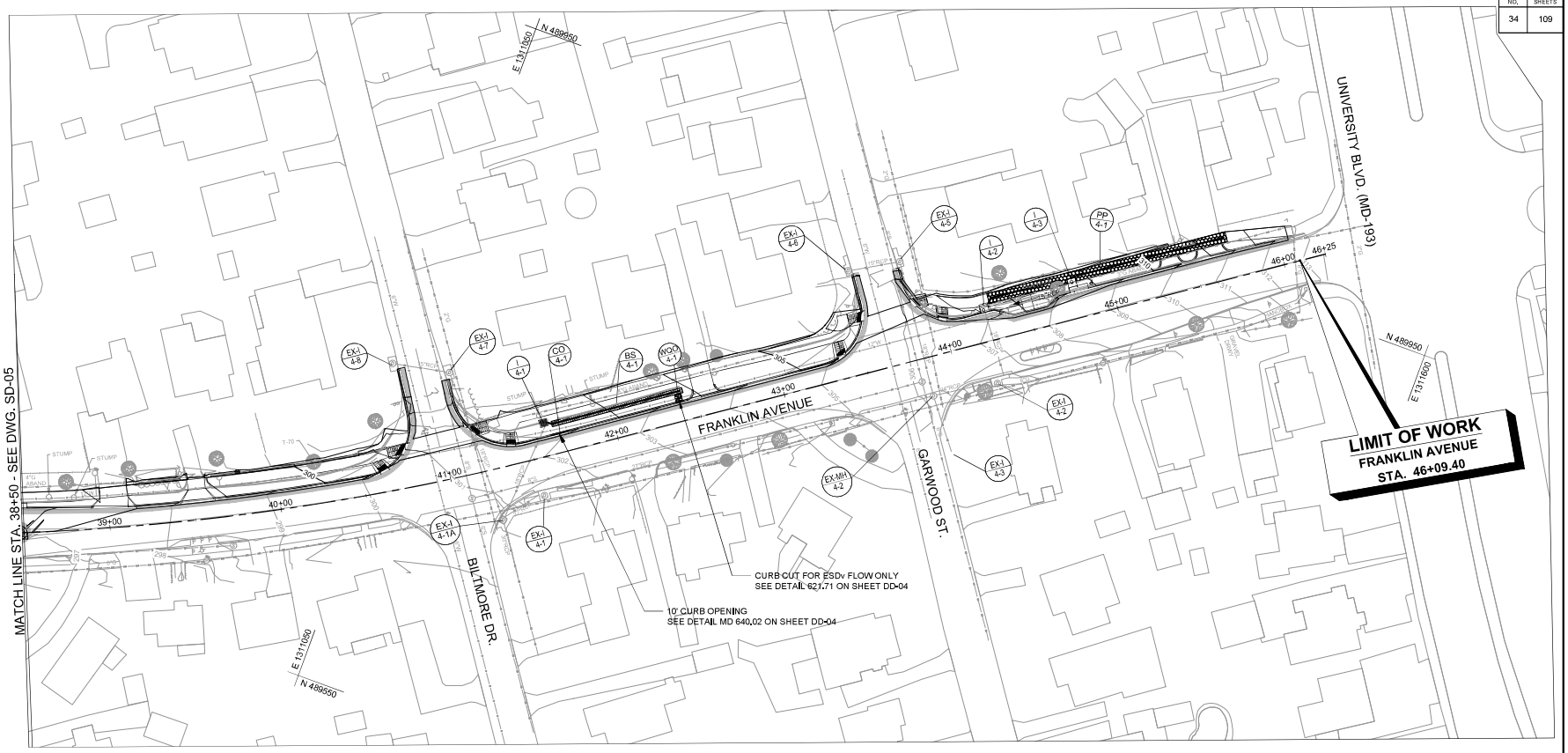
SCALE :

SD-05

Project No.: TBD — 33 of 109

FILE: K:\5547 MC DOT\T12 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\SD-Sheet.dwg
DATE: Mar 15, 2023 - 9:51am

SHEET NO.	TOTAL SHEETS
34	109



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- PROPOSED PIPE
- EX. CONTOUR
- PROPOSED CONTOUR

0 30 60
SCALE: 1" = 30'

SHELADIA Engineering Inc.
Engineers, Architects
Development Consultants
18835 Brady Grove Road, Rockville, MD, 20850
Phone: 301-525-3935 Fax: 301-445-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL TERMS

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

NO DEPT APPROVAL OF THIS PLAN IS ALLOWED ONE YEAR FROM THE DATE SHOWN ON THE DEPT. APPROVAL LETTER IF LIMITED ACTIVITY HAS NOT BEEN INITIATED AND THE PROJECT IS DELAYED

FRANKLIN AVENUE SIDEWALK

STORM DRAIN PLAN

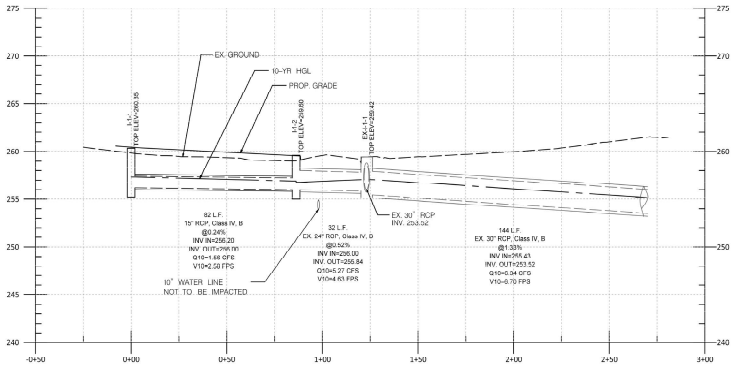
SCALE :

SD-06

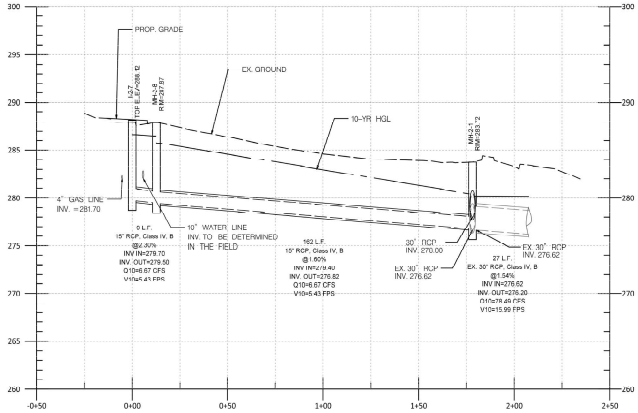
Project No.: TBD — 34 of 109

FILE: K:\5547 MC DOT\T12 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pSD-Sheet.dwg
DATE: Mar 15, 2023 - 9:52am

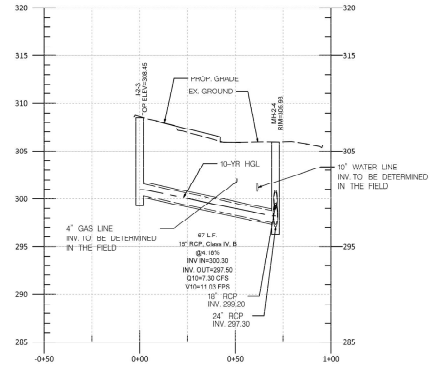
SHEET NO.	TOTAL SHEETS
35	109



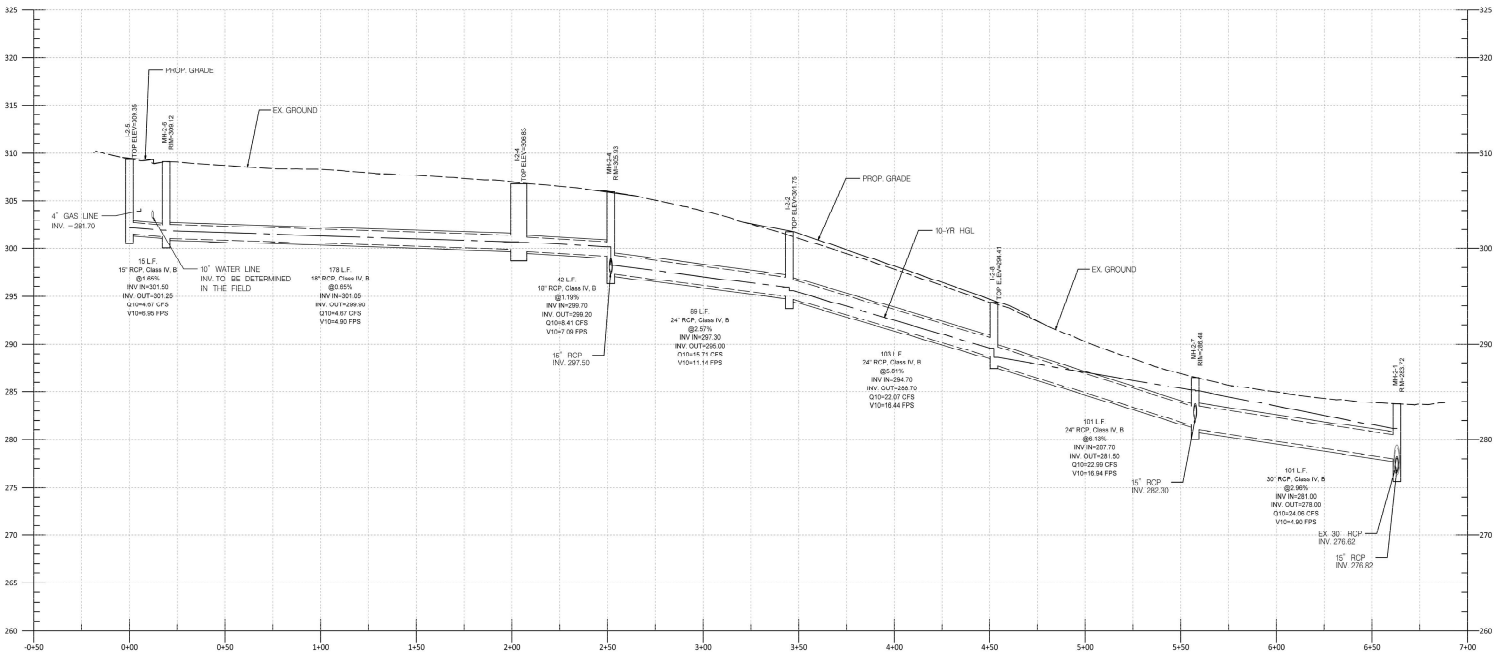
I-1-1 to EX-I-1-1



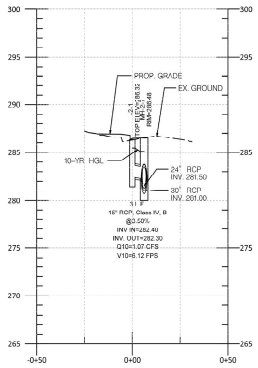
I-2-7 to MH-2-1



I-2-3 to MH-2-4



I-2-5 to MH-2-1



I-2-1 to MH-2-7

NOTE
THE WATER AND GAS LINES SHOWN ON THE PROFILES INDICATE THE LOCATIONS ONLY. THE INVERTS OF THOSE UTILITIES NEED BE MEASURED AND VERIFIED BY SURVEY ENGINEERS IN THE FIELD. AND THE INVERTS /DEPTH SHALL BE UPDATED ON THE PROFILES ONCE AVAILABLE.

SHELADIA Engineers, Architects Development Consultants
18835 Stony Grove Road, Rockville, MD, 20850
Phone: 301-926-3935 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: ___ Drawn by: ___ Checked by: ___

SEE TITLE SHEET FOR SIGNATURES

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL PERMIT No.

THE DATE OF APPROVAL OF THIS PLAN IS SUBJECT TO ONE YEAR FROM THE DATE SIGNED ABOVE. THIS PLAN IS NOT VALID AFTER THE EXPIRATION DATE UNLESS THE PLAN HAS BEEN RE-ENDORSED.

FRANKLIN AVENUE SIDEWALK

STORM DRAIN PROFILE

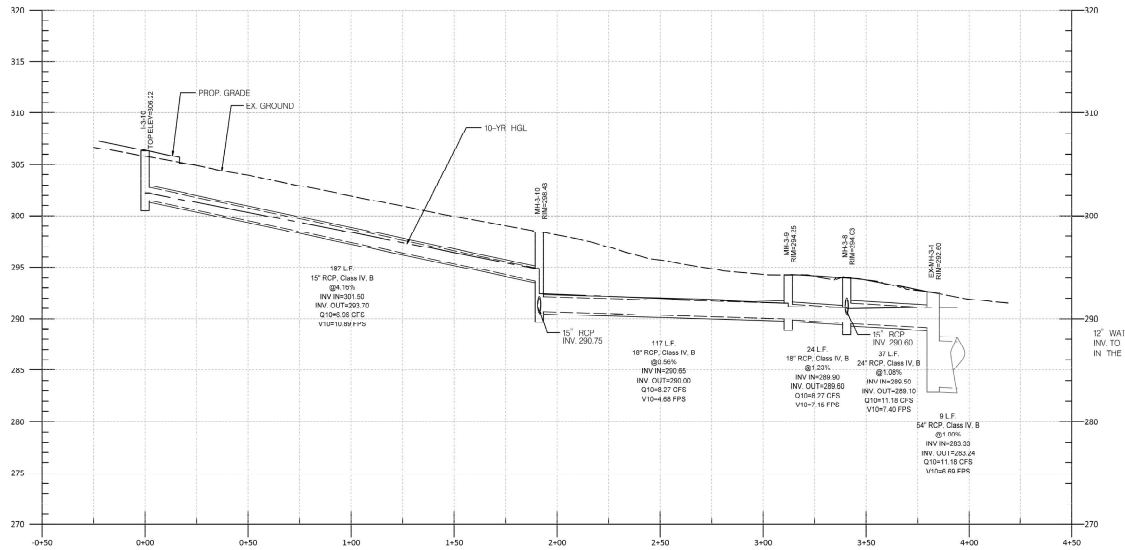
SCALE : HOR:1"=30'; VERT:1"=5'

DP-01

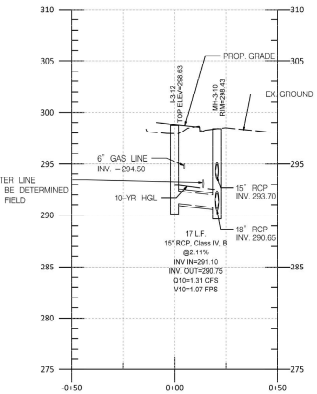
Project No.: TBD — 35 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\DP-Sheets.dwg
DATE: Mar 09, 2023 - 2:37pm

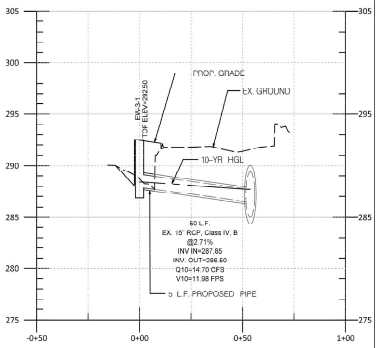
SHEET NO.	TOTAL SHEETS
36	109



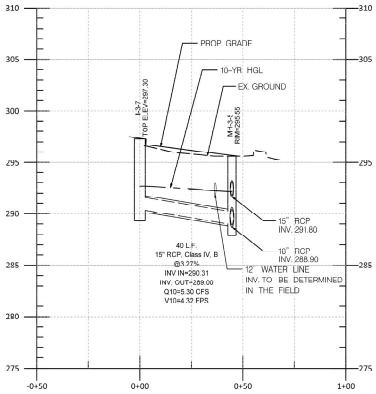
I-3-10 to EX-MH-3-1



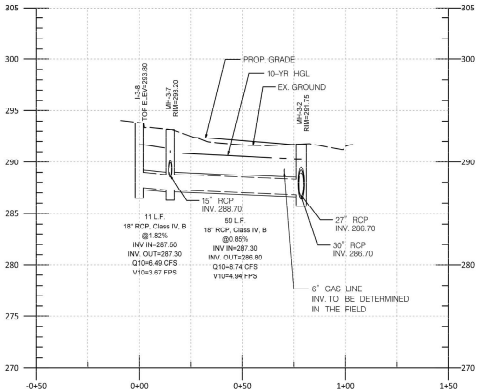
I-3-12 to MH-3-10



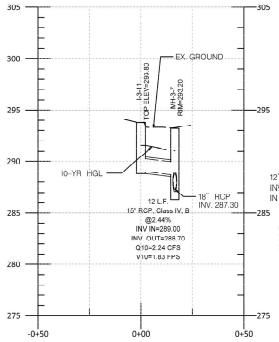
EW-3-1 to 54" PIPE



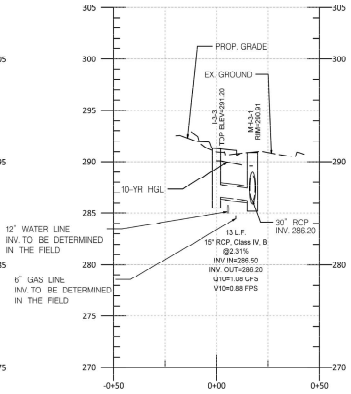
I-3-7 to MH-3-5



I-3-8 to MH-3-2



I-3-11 to MH-3-7



I-3-3 to MH-3-1

NOTE
THE WATER AND GAS LINES SHOWN ON THE PROFILES INDICATE THE LOCATIONS ONLY. THE INVERTS OF THOSE UTILITIES NEED BE MEASURED AND VERIFIED BY SURVEY ENGINEERS IN THE FIELD, AND THE INVERTS /DEPTH SHALL BE UPDATED ON THE PROFILES ONCE AVAILABLE.

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NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Approved — Date
VARIFIED

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date
SEDIMENT CONTROL PERMIT NO.
NO DEBT APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE SIGNED BY THE CHIEF, DIVISION OF WATER QUALITY PLANNING IN WHICH DEBTS ARE STATED.

FRANKLIN AVENUE SIDEWALK

DRAINAGE DETAILS

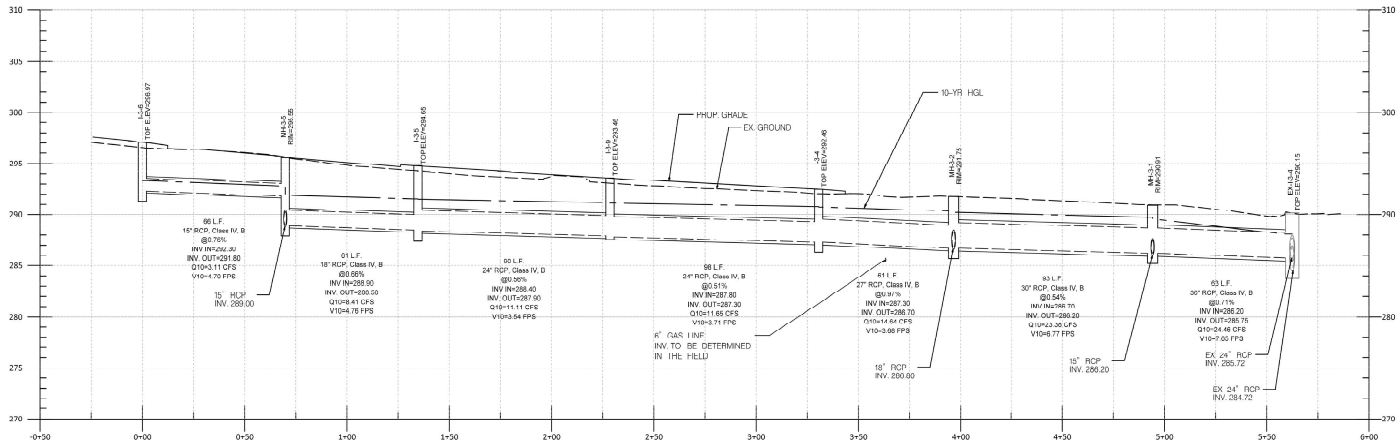
SCALE : HOR:1"=30'; VERT:1"=5'

DP-02

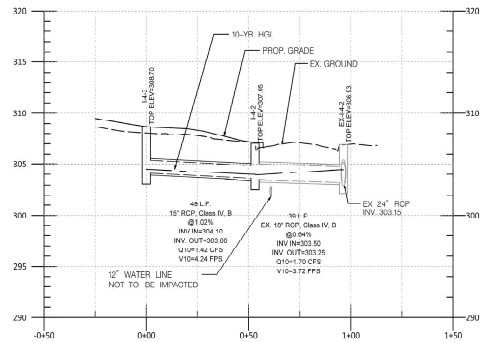
Project No.: TBD — 36 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\DP-Sheets.dwg
DATE: Mar 09, 2023 - 2:40pm

SHEET NO.	TOTAL SHEETS
37	109



I-3-6 to EX-I-3-4



I--4-3 to EX-I-4-2

NOTE
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NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: ____ Drawn by: ____ Checked by: ____

SEE TITLE SHEET FOR SIGNATURES

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
MCDPS

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDOPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TEMPLATE
MCDOT APPROVAL OF THIS PLAN IS ALLOWED ONE YEAR FROM THE DATE SHOWN ON THE PLAN. IF CONSTRUCTION IS NOT STARTED WITHIN THE ALLOWED TIME PLAN MUST BE RESUBMITTED

FRANKLIN AVENUE SIDEWALK

DRAINAGE DETAILS

SCALE : HOR:1"=30'; VERT:1"=5'

DP-03

Project No.: TBD — 37 of 109

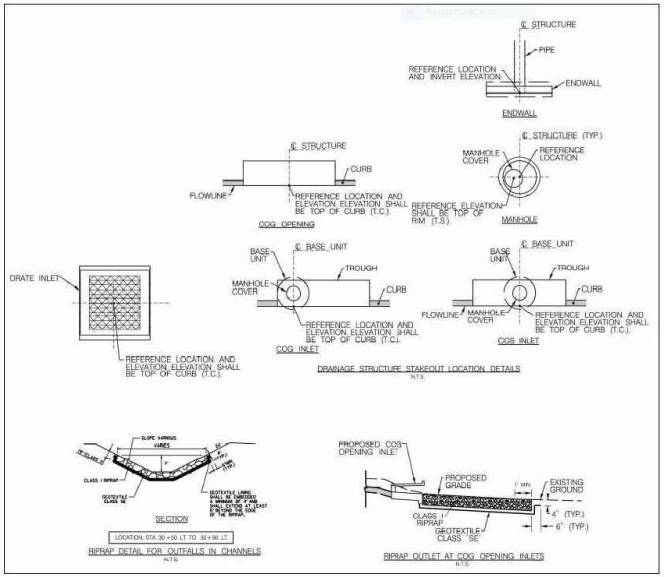
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\DP-Sheets.dwg
DATE: Mar 09, 2023 - 2:42pm

SHEET NO.	TOTAL SHEETS
38	109

STRUCTURE NO	TYPE	BASELINE	STATION	OFFSET	L/RT	INV. OUT	STANDARD	STRUCTURE DEPTH	TOP ELEV*
I-1-1	STD 10' TYPE "B" INLET	FRANKLIN AVE	1+79.2	12.2	LT	256.20	MC 502.01	4.15	260.35
I-1-2	STD 15' TYPE "A" INLET	FRANKLIN AVE	2+66.50	12.2	LT	256.30	MC 501.01	3.60	259.60
MH-2-1	72" DIA PRECAST MANHOLE	FRANKLIN AVE	15+61.1	14.63	LT	276.32	MD 384.05	7.10	283.72
I-2-1	STD TRIPLE WR INLET	FRANKLIN AVE	16+69.4	11	LT	282.40	MD 374.08	3.92	286.32
I-2-2	STD 20' REVERSE TYPE "B" INLET	FRANKLIN AVE	18+80	10.8	LT	294.70	MC 502.02	7.05	301.75
MH-2-4	60" DIA PRECAST MANHOLE	FRANKLIN AVE	19+74.5	5.9	LT	297.30	MD 384.03	8.63	305.93
I-2-3	STD 20' TYPE "B" INLET	FRANKLIN AVE	19+96.60	73.6	LT	300.30	MC 502.01	8.15	308.45
I-2-4	STD TRIPLE WR INLET	FRANKLIN AVE	20+22.1	12.1	LT	299.70	MD 374.08	7.13	306.83
MH-2-6	STD TYPE "B" 48" SQ. MANHOLE	FRANKLIN AVE	22+06.2	12.5	LT	301.35	MC 515.01	8.07	309.12
I-2-5	CUSTOM 15' COG INLET	FRANKLIN AVE	22+06.2	19.2	LT	301.50	---	7.85	309.35
I-2-6	5' AND 10' COG OPENING	FRANKLIN AVE	15+56.6	21	LT	-	MD 374.68	---	283.86
I-2-7	STD 20' TYPE "B" INLET	FRANKLIN AVE	13+95.90	11.3	LT	279.70	MC 502.01	8.42	288.12
MH-2-7	60" DIA PRECAST MANHOLE	FRANKLIN AVE	16+66.2	5.1	LT	281.30	MD 384.03	5.48	286.48
MH-2-8	STD TYPE "B" 48" SQ. MANHOLE	FRANKLIN AVE	13+95.90	5.3	LT	279.40	MC 515.01	8.47	287.87
I-2-8	STD 10' REVERSE TYPE "B" INLET	FRANKLIN AVE	17+71.85	12.3	LT	287.70	MC 502.02	6.71	294.41
I-3-1	5' AND 10' COG OPENING	FRANKLIN AVE	30+61.4	15.3	LT	-	MD 374.68	---	292.62
EW-3-1	STD TYPE "C" ENDWALL	FRANKLIN AVE	30+78.4	23.25	LT	287.35	MD 354.01	---	292.80
I-3-2	CUSTOM 10' COG INLET	FRANKLIN AVE	32+60.5	16	LT	286.20	---	4.40	290.60
I-3-3	CUSTOM 10' COG INLET	FRANKLIN AVE	33+47.70	11.1	LT	286.50	---	4.70	291.20
MH-3-1	60" DIA PRECAST MANHOLE	FRANKLIN AVE	33+47.90	4.1	LT	286.20	MD 384.03	4.71	290.91
MH-3-2	60" DIA PRECAST MANHOLE	FRANKLIN AVE	34+45.5	3.5	LT	286.70	MD 384.03	5.05	291.75
I-3-4	STD 10' REVERSE TYPE "B" INLET	FRANKLIN AVE	35+11	11.1	LT	287.30	MC 502.02	5.16	292.46
I-3-5	STD 10' REVERSE TYPE "B" INLET	FRANKLIN AVE	37+07.4	12.8	LT	288.40	MC 502.02	6.25	294.65
MH-3-5	60" DIA PRECAST MANHOLE	FRANKLIN AVE	37+73.4	13.1	LT	288.90	MD 384.03	6.65	295.55
I-3-6	STD 10' REVERSE TYPE "B" INLET	FRANKLIN AVE	38+43.1	14.3	LT	292.30	MC 502.02	4.67	296.97
I-3-7	STD REVERSE 20' TYPE "B" INLET	FRANKLIN AVE	37+94.9	54.8	LT	290.31	MC 502.02	6.99	297.30
MH-3-7	STD TYPE "A" 48" DIA. MANHOLE	FRANKLIN AVE	34+48.8	66.9	LT	287.30	MC 510.01	5.90	293.20
I-3-8	STD 20' TYPE "B" INLET	FRANKLIN AVE	34+58.2	70.2	LT	287.50	MC 502.01	6.30	293.80
MH-3-8	STD TYPE "A" 48" DIA. MANHOLE	FRANKLIN AVE	30+13.6	22.35	RT	289.50	MC 510.01	4.53	294.03
I-3-9	STD 10' REVERSE TYPE "B" INLET	FRANKLIN AVE	36+13.05	11.1	LT	287.80	MC 502.02	5.66	293.46
MH-3-9	STD TYPE "A" 48" DIA. MANHOLE	FRANKLIN AVE	29+99.2	5.4	LT	289.90	MC 510.01	4.35	294.25
MH-3-10	STD TYPE "B" 48" SQ. MANHOLE	FRANKLIN AVE	28+78.3	9.4	LT	290.35	MC 515.01	7.78	298.43
I-3-10	STD 20' REVERSE TYPE "B" INLET	FRANKLIN AVE	26+87.7	11.1	LT	301.50	MC 502.02	4.72	306.22
I-3-11	STD 10' TYPE "B" INLET	FRANKLIN AVE	34+34.8	68	LT	289.30	MC 502.01	4.80	293.80
I-3-12	CUSTOM 10' COG INLET	FRANKLIN AVE	28+78.8	15.98	LT	291.10	--	7.53	298.63
I-4-1	STD TYPE "k" INLET (10' CURB OPENING FOR FLOW IN)	FRANKLIN AVE	41+60.4	19.3	LT	297.50	MD 378.11	3.60	301.10
I-4-2	STD 5' TYPE "B" INLET	FRANKLIN AVE	44+24.9	17	LT	303.50	MC 502.01	3.55	307.05
I-4-3	CUSTOM 10' COG INLET	FRANKLIN AVE	44+78.3	15.5	LT	304.10	---	4.50	308.60
CO 4-1	STD CURB OPENING	FRANKLIN AVE	41+69.5	11.1	LT	-	MD 640.02	---	---

FROM	TO	SIZE (IN)	TYPE	LENGTH (L.F.)
I-1-1	I-1-2	15	RCP CLASS IV	82
I-2-5	MH-2-6	15	RCP CLASS IV	15
MH-2-6	I-2-4	18	RCP CLASS IV	178
I-2-4	MH-2-4	18	RCP CLASS IV	42
I-2-3	MH-2-4	15	RCP CLASS IV	67
MH-2-4	I-2-2	24	RCP CLASS IV	89
I-2-2	I-2-8	24	RCP CLASS IV	103
I-2-1	MH-2-7	15	RCP CLASS IV	3
I-2-7	MH-2-8	15	RCP CLASS IV	9
MH-2-8	MH-2-1	15	RCP CLASS IV	162
MH-2-7	MH-2-1	30	RCP CLASS IV	101
I-2-8	MH-2-7	24	RCP CLASS IV	101
I-3-7	MH-3-5	15	RCP CLASS IV	40
MH-3-5	I-3-5	18	RCP CLASS IV	61
I-3-6	MH-3-5	15	RCP CLASS IV	66
I-3-5	I-3-9	24	RCP CLASS IV	90
I-3-4	MH-3-2	27	RCP CLASS IV	61
I-3-8	MH-3-7	18	RCP CLASS IV	11
MH-3-7	MH-3-2	18	RCP CLASS IV	59
MH-3-2	MH-3-1	30	RCP CLASS IV	93
I-3-3	MH-3-1	15	RCP CLASS IV	13
MH-3-1	EX-I-3-4	30	RCP CLASS IV	63
EW-3-1	**--	15	RCP CLASS IV	5
I-3-10	MH-3-10	15	RCP CLASS IV	187
I-3-9	I-3-4	24	RCP CLASS IV	98
MH-3-10	MH-3-9	18	RCP CLASS IV	117
MH-3-9	MH-3-8	18	RCP CLASS IV	24
MH-3-8	EX-MH-3-1	24	RCP CLASS IV	37
I-3-11	MH-3-7	15	RCP CLASS IV	12
I-3-12	MH-3-10	15	RCP CLASS IV	17
I-4-3	I-4-2	15	RCP CLASS IV	49

**ONLY 5 FEET PIPE DOWNSTREAM OF EW 3-1 IS PROPOSED FOR THE EXTENSION OF THE EX. 15" PIPE.



EW - ENDWALL
I - INLET
MH - MANHOLE
PP - PERVIOUS CONCRETE
CO - STD CURB OPENING (MD 640.02)
WQO - CURB CUT FOR ESD: FLOW (DETAIL 621.41)

NOTE:
1.THE DOWNSTREAM OF I-3-1 IS A RIPRAP LINED DITCH.
SEE THE PLAN FOR THE DETAILS.
2.GEOTEXTILE SHALL BE EMBEDDED A MINIMUM OF 4" AND SHALL EXTEND AT LEAST 6" BEYOND THE EDGE OF RIPRAP (TYPICAL).

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NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: ____ Drawn by: ____ Checked by: ____

SEE TITLE SHEET FOR SIGNATURES

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
MCDEP

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDOPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TEMPLATE
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FRANKLIN AVENUE SIDEWALK

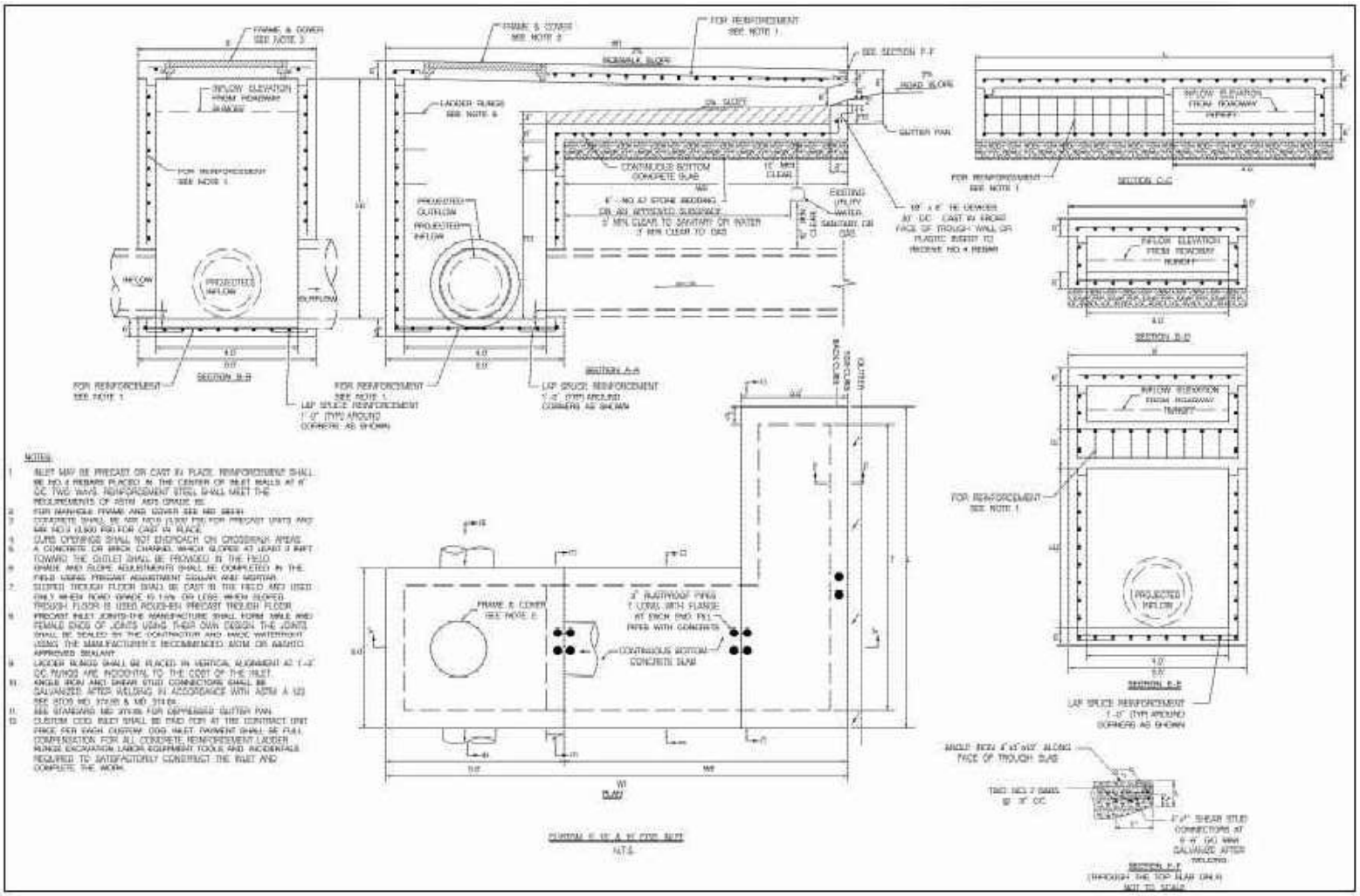
DRAINAGE DETAILS

SCALE : AS SHOWN

DD-01

Project No.: TBD — 38 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pDD-Details.dwg
DATE: Mar 13, 2023 - 10:39am



NOTES:

1. INLET MAY BE PRECAST OR CAST IN PLACE. REINFORCEMENT SHALL BE NO 4 REBARS PLACED IN THE CENTER OF INLET WALLS AT 6" OC TWO WAYS. REINFORCEMENT STEEL SHALL MEET THE REQUIREMENTS OF ASTM A615 GRADE 60.
2. FOR MANHOLE FRAME AND COVER SEE MD 380.01.
3. CONCRETE SHALL BE 3000 PSI (28 DAY) FOR PRECAST UNITS AND 3000 PSI (28 DAY) FOR CAST IN PLACE.
4. CURB OPENINGS SHALL NOT ENCROACH ON CROSSWALK AREAS.
5. A CONCRETE OR BRICK CHANNEL WHICH SLOPES AT LEAST 3 INFT TOWARD THE OUTLET SHALL BE PROVIDED IN THE FIELD. GRADE AND SLOPE ADJUSTMENTS SHALL BE COMPLETED IN THE FIELD USING PRECAST ADJUSTMENT COLLAR AND MORTAR.
7. SLOPED TROUGH FLOOR SHALL BE CAST IN THE FIELD AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS. WHEN SLOPED TROUGH FLOOR IS USED, ROUGH-BIN PRECAST TROUGH FLOOR.
8. PRECAST INLET JOINTS-THE MANUFACTURE SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING THE MANUFACTURER'S RECOMMENDED ASTM OR AASHTO APPROVED SEALANT.
9. LADDER RUNGS SHALL BE PLACED IN VERTICAL ALIGNMENT AT 1'-0" OC. RUNGS ARE INCIDENTAL TO THE COST OF THE INLET.
10. ANGLE IRON AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123 REF ATOS MD 370.00 & MD 370.03.
11. SEE STANDARD MD 370.03 FOR DEPRESSED GUTTER PAN.
12. CUSTOM COD INLET SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH CUSTOM COD INLET. PAYMENT SHALL BE FULL COMPENSATION FOR ALL CONCRETE, REINFORCEMENT, LADDER RUNGS, EXCAVATION, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS REQUIRED TO SATISFACTORILY CONSTRUCT THE INLET AND COMPLETE THE WORK.

STRUCTURE NO	T(FT)	L(FT)	W1(FT)	W2(FT)	H1(FT)	H2(FT)	H3(IN)	STRUCTURE DEPTH
I-2-5	15	16	15	10	7.75	5.17	6.40	7.95
I-3-2	10	11	11.7	6.7	4.18	1.73	5.61	4.45
I-3-3	10	11	13.2	8	4.61	2.11	5.92	4.85
I-3-12	10	11	16	11	7.48	4.86	6.64	7.66
I-4-3	10	11	8	3	4.26	1.96	4.72	4.60

SHELADIA Engineers, Architects Development Consultants
18035 Shady Grove Road, Rockville, MD, 20850
Phone: 301-926-3935 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date

Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date

SEDIMENT CONTROL CERTIFICATE

MCDPS APPROVAL OF THIS PLAN IS CONTINGENT UPON REVIEW AND APPROVAL OF ALL OTHER REQUIRED PERMITS AND ACCEPTANCE OF ALL FEES AND PERFORMANCE BONDS

FRANKLIN AVENUE SIDEWALK

DRAINAGE DETAILS

SCALE : AS SHOWN

DD-02

Project No.: TBD — 39 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pDD-Details.dwg
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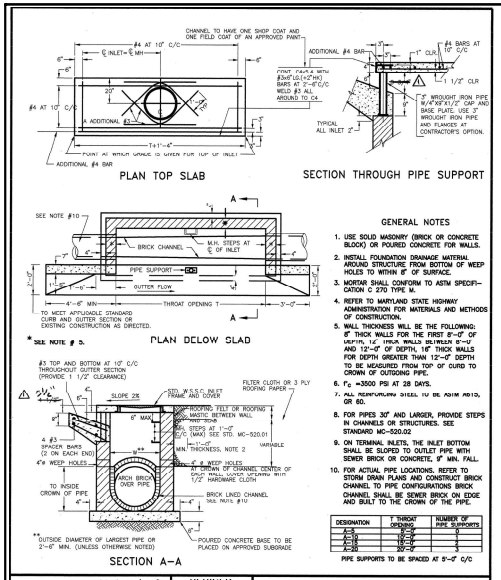
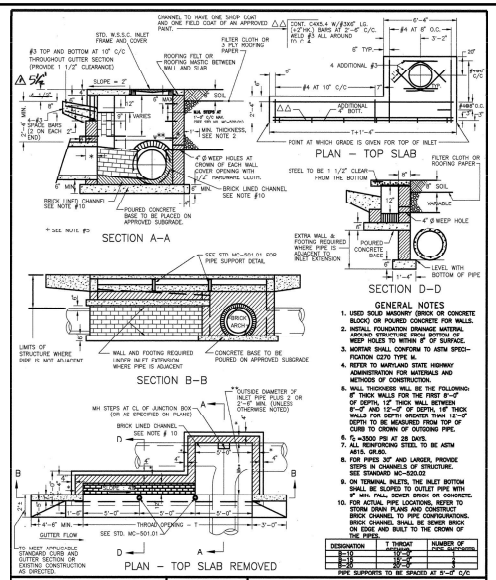


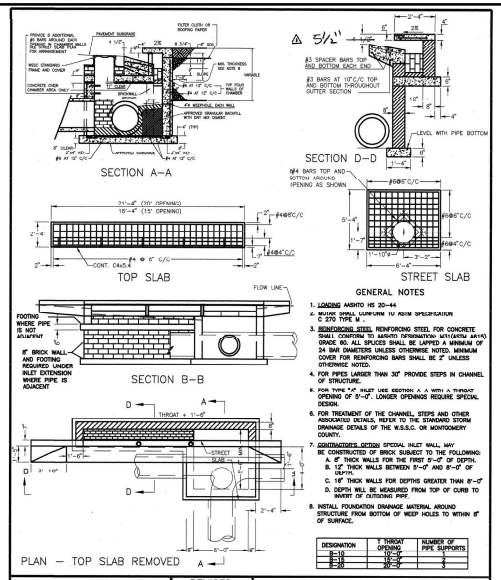
DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
A-5	5'-0"	3
A-6	6'-0"	4
A-7	7'-0"	4
A-8	8'-0"	4
A-9	9'-0"	4
A-10	10'-0"	5

APPROVED JAN 5/96 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.	RESTORED 11" DEPRESSION AT GUTTER EDGE 6/25/12	"A" INLET
CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-501.01



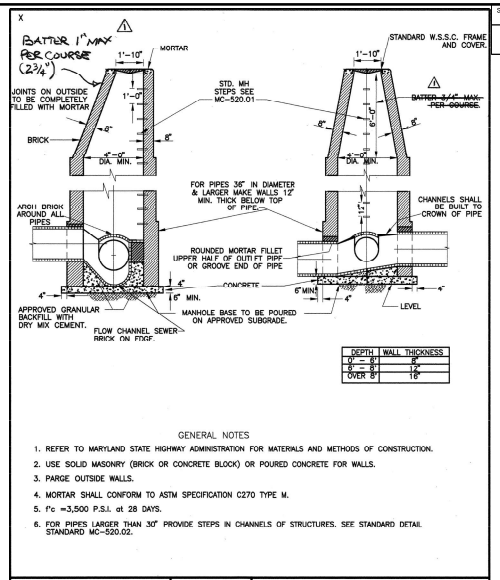
DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
B-5	5'-0"	3
B-6	6'-0"	4
B-7	7'-0"	4
B-8	8'-0"	4
B-9	9'-0"	4
B-10	10'-0"	5

APPROVED JAN 5/96 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.	RESTORED 11" DEPRESSION AT GUTTER EDGE 6/25/12	"B" INLET
CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-502.01



DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
B-13	13'-0"	5
B-15	15'-0"	6
B-20	20'-0"	8

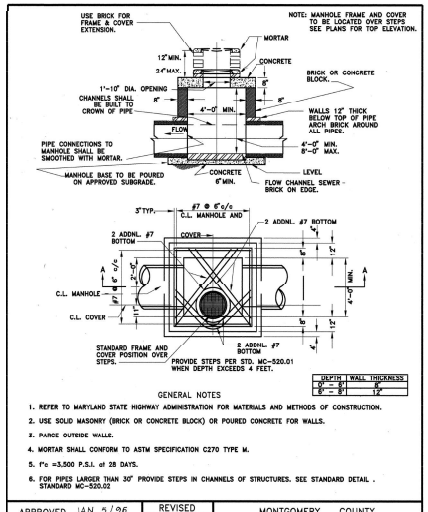
APPROVED JAN 5/96 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.	RESTORED 11" DEPRESSION AT GUTTER EDGE 6/25/12	REVERSE "B" INLET
CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-502.02



DEPTH	WALL THICKNESS
0' - 6'	8"
6' - 8'	12"
OVER 8'	16"

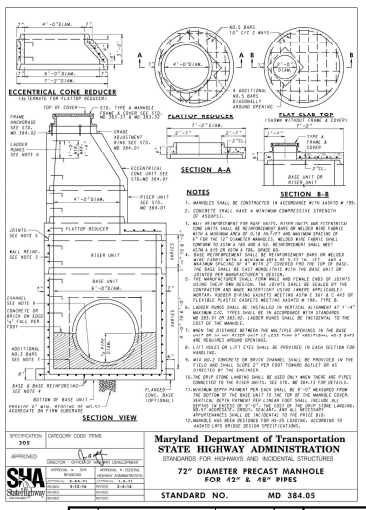
SHEET NO.	TOTAL SHEETS
40	109

APPROVED JAN 5/96 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.	CORRECTED MAX BATTER 6/25/12	"A" MANHOLE
CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-510.01



DEPTH	WALL THICKNESS
0' - 6'	8"
6' - 8'	12"

APPROVED JAN 5/96 DATE	REVISED	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIRECTOR, DEPT. OF TRANS.		"B" MANHOLE
CHIEF, DIV. OF ENG. SERVICES		STANDARD NO. MC-515.01



SPECIFICATION	CATEGORY CODE ITEMS
305	

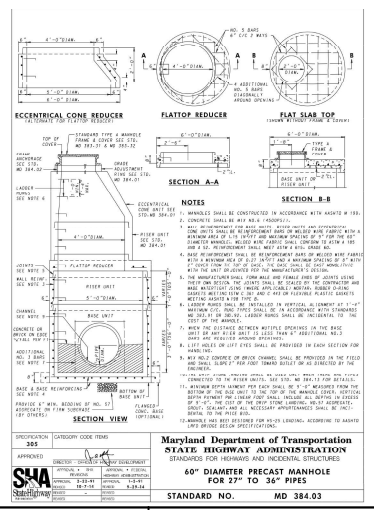
APPROVED: DIRECTOR - DIVISION OF ENGINEERING AND DEVELOPMENT

APPROVAL + DATE REVISIONS	APPROVAL + FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 9-26-95	APPROVAL 9-26-95
DATE(S) 6-13-96	DATE(S) 3-6-96
DATE(S)	DATE(S)
DATE(S)	DATE(S)

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

72" DIAMETER PRECAST MANHOLE FOR 42" & 48" PIPES

STANDARD NO. MD 384.05



SPECIFICATION	CATEGORY CODE ITEMS
305	

APPROVED: DIRECTOR - DIVISION OF ENGINEERING AND DEVELOPMENT

APPROVAL + DATE REVISIONS	APPROVAL + FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 5-22-97	APPROVAL 5-6-97
DATE(S) 10-7-98	DATE(S) 9-29-94
DATE(S)	DATE(S)
DATE(S)	DATE(S)

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

60" DIAMETER PRECAST MANHOLE FOR 27" TO 36" PIPES

STANDARD NO. MD 384.03

SHELADIA Engineers, Architects Development Consultants
18025 Sandy Grove Road, Rockville, MD. 20850
Phone: 301-926-3935 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date
APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ____ Drawn by: ____ Checked by: ____

SEE TITLE SHEET FOR SIGNATURES

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL PERMIT NO.
NO DEFT APPROVAL OF THIS PLAN IS ALLOWED ONE YEAR FROM THE DATE OF THE DEPT. OF PERMITTING SERVICES APPROVAL. ONLY THE PLANS SHOWN ON THE PERMIT REVIEW STAMPED SET.

FRANKLIN AVENUE SIDEWALK

DRAINAGE DETAILS

SCALE : AS SHOWN

DD-03

Project No.: TBD — 40 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pDD-Details.dwg
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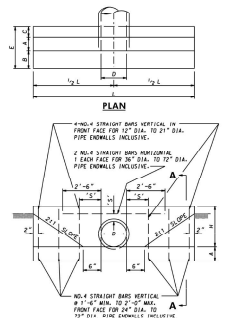


QUANTITIES FOR ESTIMATING PURPOSES ONLY

OPENING		DIMENSIONS						QUANTITIES	
D INCHES	AREA SQ.FT.	A	B	C	E	F	H	L	CONC. C.Y.	STEEL LBS.
12	0.79	9"	6"	6"	1'-9"	9"	7'-9"	8'-6"	0.61	41
15	1.23	9"	6"	6"	1'-9"	9"	7'-9"	9'-0"	0.77	47
18	1.77	9"	6"	6"	1'-9"	9"	7'-9"	9'-0"	0.95	54
21	2.40	9"	6"	6"	1'-9"	9"	7'-6"	10'-3"	1.14	70
24	3.14	9"	14"	6"	2'-5"	9"	7'-9"	11'-6"	1.56	80
27	3.98	9"	14"	6"	2'-5"	9"	7'-9"	12'-9"	1.82	88
30	4.91	9"	14"	6"	2'-5"	12"	7'-6"	14'-0"	2.22	98
33	5.94	9"	14"	6"	2'-5"	12"	7'-9"	15'-0"	2.48	105
36	7.07	12"	16"	10"	3'-2"	12"	4'-0"	16'-8"	4.16	182
42	9.62	12"	16"	10"	3'-2"	12"	4'-6"	19'-0"	5.07	206
48	12.57	12"	16"	10"	3'-2"	12"	5'-0"	21'-6"	6.09	244
54	15.90	12"	20"	12"	3'-8"	12"	5'-6"	24'-0"	7.52	275
60	19.64	12"	20"	12"	3'-8"	12"	6'-0"	26'-6"	8.82	304
72	28.27	12"	20"	12"	3'-8"	12"	7'-0"	31'-6"	12.46	377

'S' DISTANCES

4" FOR 12" DIA. TO 21" DIA. PIPES INCLUSIVE.
6" FOR 24" DIA. TO 36" DIA. PIPES INCLUSIVE.
8" FOR 42" DIA. TO 72" DIA. PIPES INCLUSIVE.

GENERAL NOTES

SPECIFICATIONS: LATEST S.H.A.
CONCRETE SHALL BE MIX NO.2
REINFORCING: DEFORMED STEEL BARS-NO.4
CHAMFER: ALL EXPOSED EDGES 1"x1" OR AS DIRECTED

SPECIFICATION	CATEGORY CODE ITEMS
305	

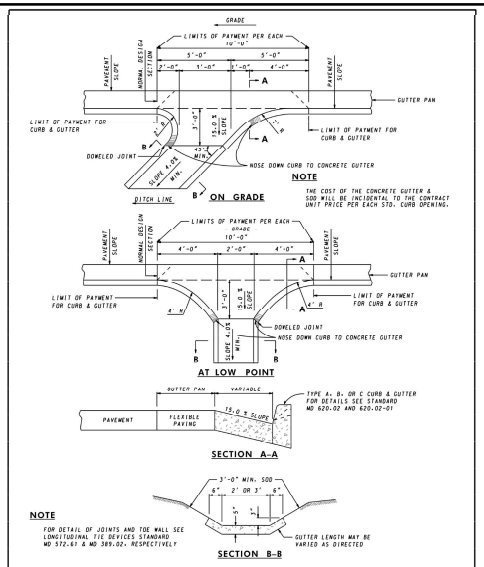
APPROVED — DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD TYPE C ENDWALL
METAL OR CONCRETE ROUND PIPE

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-28-84	APPROVAL 12-13-84
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

STANDARD NO. MD 354.01



SPECIFICATION	CATEGORY CODE ITEMS
602	

APPROVED — DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

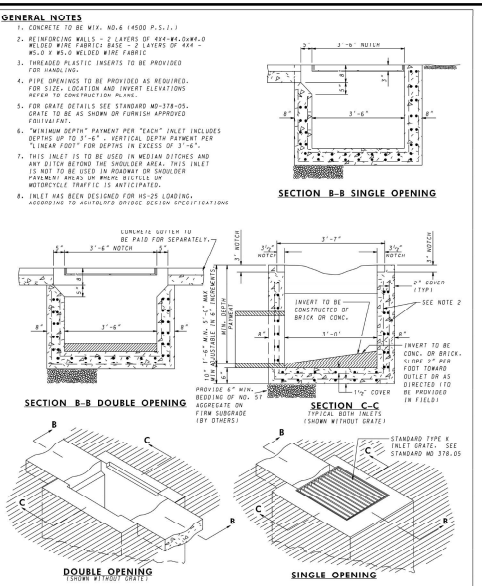
STANDARD CURB OPENING DETAILS
FOR COMBINATION CURB & GUTTER

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 3-15-82	APPROVAL
REVISED 10-1-01	REVISED 8-1-84
REVISED	REVISED
REVISED	REVISED

STANDARD NO. MD 640.02

GENERAL NOTES

1. CONCRETE TO BE MIX. NO.6 (4500 P.S.I.)
2. REINFORCING WALLS - 2 LAYERS OF 4X4-W4.0x#4.0 WELDED WIRE FABRIC: BASE - 2 LAYERS OF 4X4 - W5.0 X #5.0 WELDED WIRE FABRIC
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION AND INVERT ELEVATIONS REFER TO CONSTRUCTION PLANS.
5. FOR GRATE DETAILS SEE STANDARD MD-378-05. GRATE TO BE AS SHOWN OR FURNISH APPROVED EQUIVALENT.
6. "MINIMUM DEPTH" PAYMENT PER "EACH" INLET INCLUDES DEPTHS UP TO 3'-6". VERTICAL DEPTH PAYMENT PER "LINEAR FOOT" FOR DEPTHS IN EXCESS OF 3'-6".
7. THIS INLET IS TO BE USED IN MEDIAN DITCHES AND ANY DITCH BEYOND THE SHOULDER AREA. THIS INLET IS NOT TO BE USED IN ROADWAY OR SHOULDER PAVEMENT AREAS UNLESS DISTRICT OR WATERCYCLE TRAFFIC IS ANTICIPATED.
8. INLET HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO AASHTO/DPW/DOT DESIGN SPECIFICATIONS
9. THE COST OF THE CONCRETE GUTTER & SOD WILL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER EACH STD. CURB OPENING.



SPECIFICATION	CATEGORY CODE ITEMS
305	

APPROVED — DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

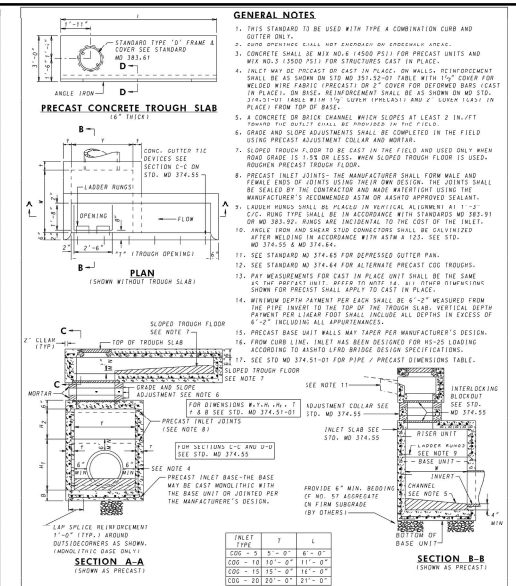
PRECAST STANDARD
SINGLE OR DOUBLE OPENING
TYPE K INLET OPEN-END GRATE

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 4-4-84	APPROVAL 8-1-84
REVISED 10-1-01	REVISED 6-23-87
REVISED 10-7-14	REVISED 9-29-14
REVISED	REVISED

STANDARD NO. MD 378.11

GENERAL NOTES

1. THIS STANDARD TO BE USED WITH TYPE A COMBINATION CURB AND GUTTER ONLY.
2. CURB OPENINGS SHALL NOT EXCEEDED ON CROSSWALK AREAS.
3. CONCRETE SHALL BE MIX NO.6 (4500 PSI) FOR PRECAST UNITS AND MIX NO.3 (3500 PSI) FOR STRUCTURES CAST IN PLACE.
4. INLET MAY BE PRECAST OR CAST IN PLACE. ON WALLS: REINFORCEMENT SHALL BE AS SHOWN ON STD MD 351.52-07 TABLE WITH 1½" COVER FOR WELDED WIRE FABRIC (PRECAST) OR 2" COVER FOR DEFORMED BARS (CAST IN PLACE). ON BASE: REINFORCEMENT SHALL BE AS SHOWN ON MD STD. 374.51-01 TABLE WITH 1½" SUPER (PRECAST) AND 2" COVER (CAST IN PLACE) FROM TOP OF BASE.
5. A CONCRETE OR BRICK CHANNEL WHICH SLOPES AT LEAST 2 IN./FT TOWARD THE OUTLET SHALL BE PROVIDED IN THE FIELD.
6. GRADE AND SLOPE ADJUSTMENTS SHALL BE COMPLETED IN THE FIELD USING PRECAST ADJUSTMENT COLLAR AND MORTAR.
7. SLOPED TROUGH FLOOR TO BE CAST IN THE FIELD AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS. WHEN SLOPED TROUGH FLOOR IS USED. ROUGHEN PRECAST TROUGH FLOOR.
8. PRECAST INLET JOINTS- THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING THE MANUFACTURER'S RECOMMENDED ASTM OR AASHTO APPROVED SEALANT.
9. LADDER RUNGS SHALL BE PLACED IN VERTICAL ALIGNMENT AT 1'-2" C/C. RUNG TYPE SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 OR MD 383.92. RUNGS ARE INCIDENTAL TO THE COST OF THE INLET.
10. ANGLE IRON AND SHEAR STUD CONNECTORS SHALL BE GALVINIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123. SEE STD. MD 374.55 & MD 374.64.
11. SEE STANDARD MD 374.65 FOR DEPRESSED GUTTER PAN.
12. SEE STANDARD MD 374.64 FOR ALTERNATE PRECAST CGC TROUGHS.
13. PAY MEASUREMENTS FOR CAST IN PLACE UNIT SHALL BE THE SAME AS THE PRECAST UNIT. REFER TO NOTE 14. ALL OTHER REINFORCING SHOWN FOR PRECAST SHALL APPLY TO CAST IN PLACE.
14. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 6'-2" MEASURED FROM THE PIPE INVERT TO THE TOP OF THE TROUGH SLAB. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 6'-2" INCLUDING ALL APPURTENANCES.
15. PRECAST BASE UNIT WALLS MAY TAPER PER MANUFACTURER'S DESIGN.
16. FROM CURB LINE, INLET HAS BEEN DESIGNED FOR HS-25 LOADING ACCORDING TO AASHTO LFRD BRIDGE DESIGN SPECIFICATIONS.
17. SEE STD MD 374.51-01 FOR PIPE / PRECAST DIMENSIONS TABLE.



SPECIFICATION	CATEGORY CODE ITEMS
305	

APPROVED — DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

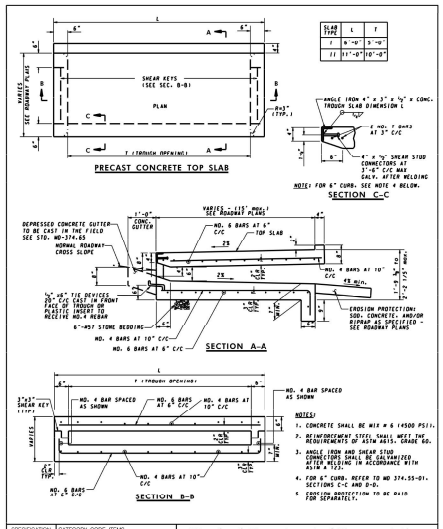
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST OR CAST IN PLACE
SQUARE AND RECTANGULAR COG INLETS
5', 10', 15' & 20'

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 2-22-91	APPROVAL 1-31-91
REVISED 8-2-10	REVISED 7-26-10
REVISED 10-7-14	REVISED 9-29-14
REVISED	REVISED

STANDARD NO. MD 374.51

SHEET NO.	TOTAL SHEETS
41	109



SPECIFICATION	CATEGORY CODE ITEMS
305	

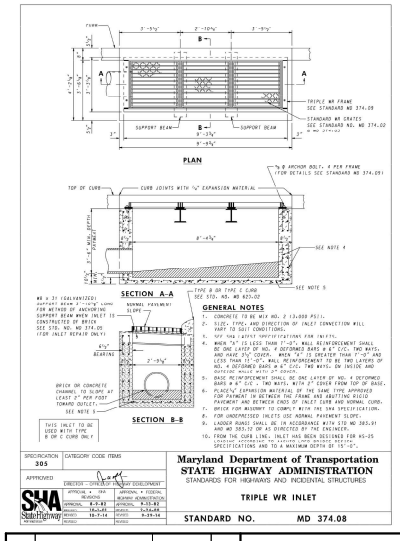
APPROVED — DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST OR CAST IN PLACE
COG (CGO) OPENING FOR 8" CURB
5' OR 10' ONLY

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 12-28-82	APPROVAL 7-13-92
REVISED 1-9-09	REVISED 11-24-97
REVISED	REVISED
REVISED	REVISED

STANDARD NO. MD 374.68



GENERAL NOTES

1. CONCRETE TO BE MIX NO. 2 (3,000 PSI).
2. ALL CONCRETE TO BE CORRECTION OF INLET CONNECTION WILL START TO SET CONDITIONS.
3. SEE SHA 2 ASTM SPECIFICATIONS FOR INLETS.
4. WHEN "X" IS LESS THAN 7'-0", WALL REINFORCEMENT SHALL BE ONE LAYER OF NO. 4 DEFORMED BARS @ 6" C/C. TWO WAYS, AND HAVE 2½" COVER. WHEN "X" IS GREATER THAN 7'-0" AND LESS THAN 11'-0", WALL REINFORCEMENT TO BE TWO LAYERS OF NO. 4 DEFORMED BARS @ 6" C/C. TWO WAYS. ON INSIDE AND OUTSIDE OF WALL.
5. BASE REINFORCEMENT SHALL BE ONE LAYER OF NO. 4 DEFORMED BARS @ 6" C/C. TWO WAYS, WITH 2" COVER FROM TOP OF BASE.
6. PLACE ½" EXPANSION MATERIAL OF THE SAME TYPE APPROVED FOR PAYMENT IN BETWEEN THE FRAME AND ABUTTING RIGID PAVEMENT AND BETWEEN CROSS OF INLET CURB AND NORMAL CURB.
7. BRICK FOR MASONRY TO COMPLY WITH THE SHA SPECIFICATIONS.
8. FOR UNDERPASSED INLETS USE NORMAL PAVEMENT SLOPE.
9. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STD MD 383.91 AND MD 383.92 OF AS DIRECTED BY THE ENGINEER.
10. FROM THE CURB LINE, INLET HAS BEEN DESIGNED FOR HS-25 SPECIFICATIONS AND TO A MAXIMUM DEPTH OF 15'-0".

SPECIFICATION	CATEGORY CODE ITEMS
305	

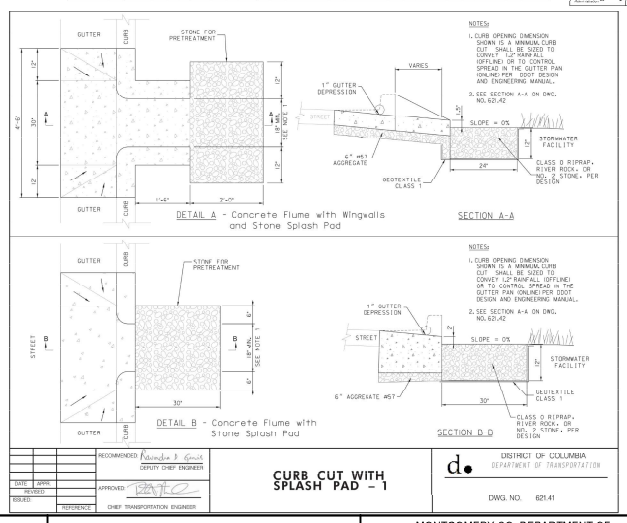
APPROVED — DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TRIPLE WR INLET

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-2-93	APPROVAL 9-13-93
REVISED 10-7-14	REVISED 9-29-14
REVISED	REVISED
REVISED	REVISED

STANDARD NO. MD 374.08



DATE	APPR.
REVISED	
ISSUED	
REFERENCE	

RECOMMENDED — DEPUTY CHIEF ENGINEER
APPROVED — CHIEF, TRANSPORTATION ENGINEER

CURB CUT WITH SPLASH PAD - 1

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 621.41

NO.	REVISION	DATE	BY

Engineers, Architects Development Consultants
SHELADIA
18025 Sandy Grove Road, Rockville, MD, 20850
Phone: 301-926-3935 Fax: 301-440-7174
www.sheladia.com

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: ____ Drawn by: ____ Checked by: ____

SEE TITLE SHEET FOR SIGNATURES

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:	Sediment Control Technical Requirements:
Reviewed — Date	Reviewed — Date
Approved — Date	Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TECHNICIAN
THIS SHEET APPROVAL OF THE PLANS IS ACCEPTING THE VERIFICATION THAT THE SITE DEVELOPMENT WILL BE CONSTRUCTED AS SHOWN ON THE PLANS AND THAT ALL CONDITIONS STATED ON THE PLANS WILL BE FULFILLED.

FRANKLIN AVENUE SIDEWALK

DRAINAGE DETAILS

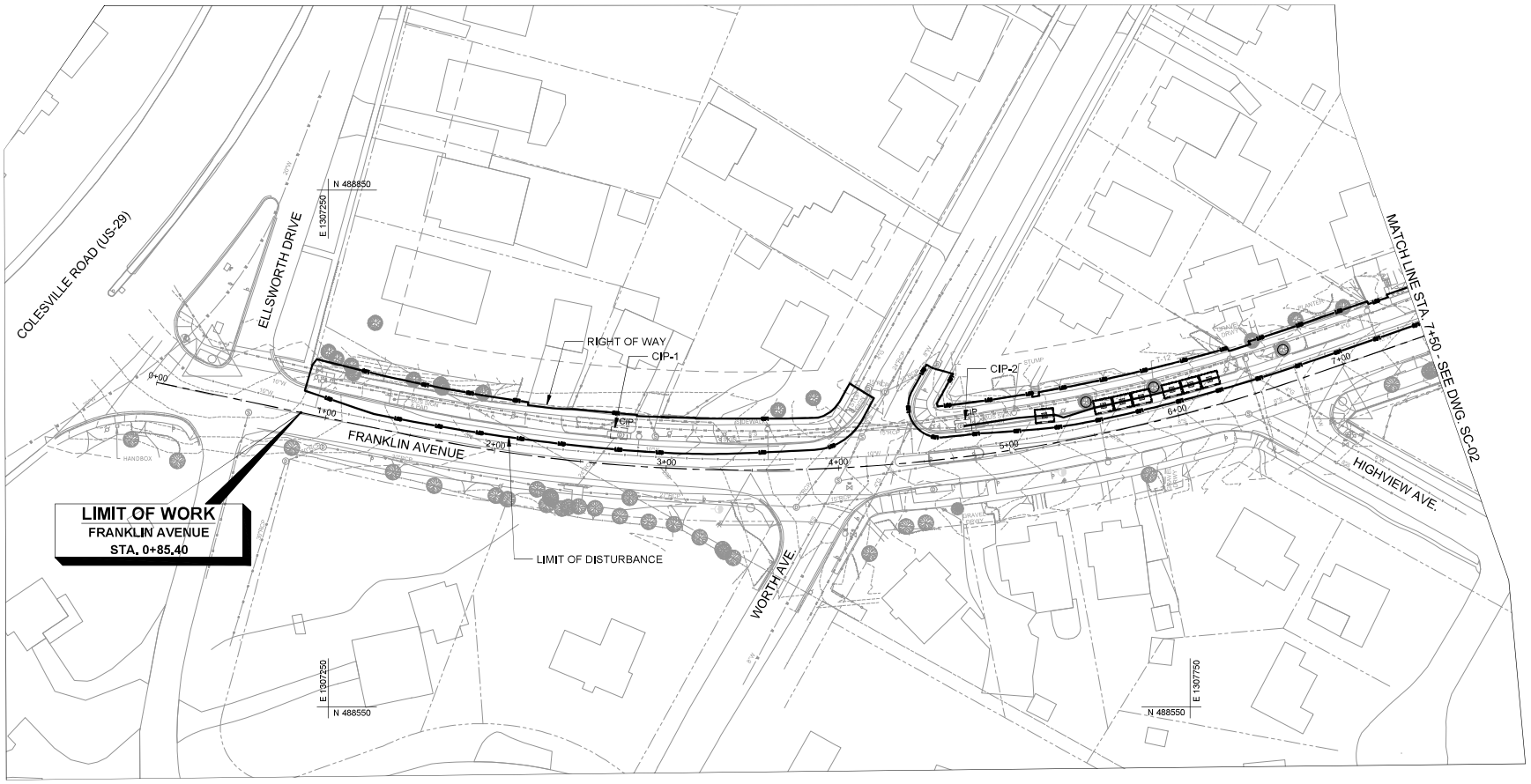
SCALE : AS SHOWN

DD-04

Project No.: TBD — 41 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pDD-Details.dwg
DATE: Mar 13, 2023 - 11:49am

SHEET NO.	TOTAL SHEETS
42	109



NOTES

1. NO SEDIMENT LADEN RUNOFF SHALL LEAVE THE WORK AREA UNLESS DIRECTED TO AN MDE APPROVED SEDIMENT CONTROL DEVICES.
2. EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.
3. THE CONTRACTOR SHOULD PROVIDE THE STABILIZED CONSTRUCTION ENTRANCE AS NEEDED AND THE LOCATION SHOULD BE APPROVED BY EROSION AND SEDIMENT CONTROL INSPECTOR.
4. SEE THE GENERAL NOTES SHEET FOR THE SEQUENCE OF CONSTRUCTION OF PHASE 1.

CURB INLET PROTECTION(CIP)		
CIP-1	STA. 2+69.2, 17.1 LT	1 EA
CIP-2	STA. 4+75.2, 18.1 LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
- TSOS — TEMPORARY STONE OUTLET STRUCTURE

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18035 Shady Grove Road, Rockville, MD, 20850
Phone: 301-926-3939 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE I

SCALE :

SC-01

Project No.: TBD — 42 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase I Sheet.dwg
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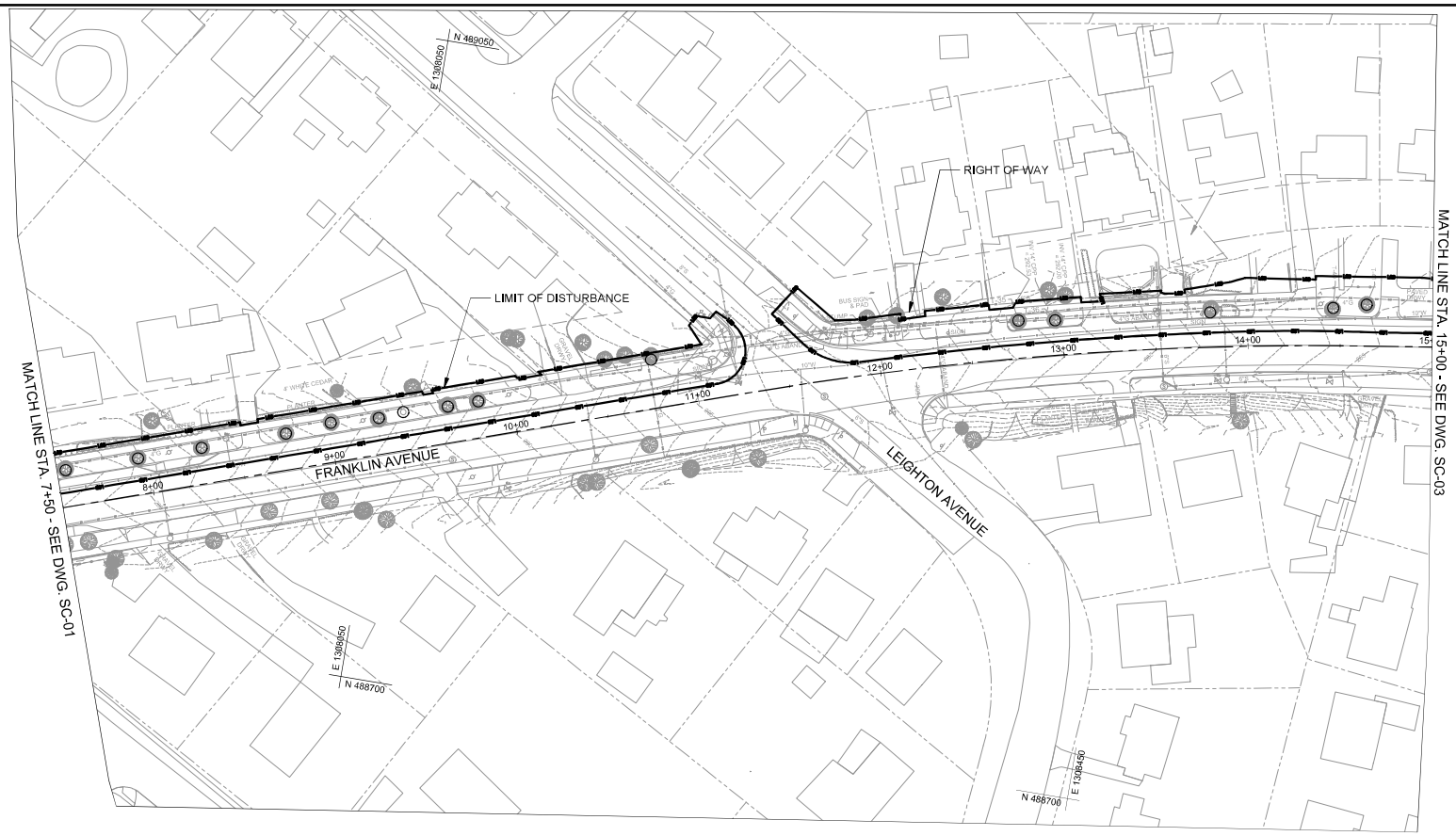
SHEET NO.	TOTAL SHEETS
43	109



NOTES

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3. THE CONTRACTOR SHOULD PROVIDE THE STABILIZED CONSTRUCTION ENTRANCE AS NEEDED AND THE LOCATION SHOULD BE APPROVED BY EROSION AND SEDIMENT CONTROL INSPECTOR.
4. SEE THE GENERAL NOTES SHEET FOR THE SEQUENCE OF CONSTRUCTION OF PHASE 1.

LEGEND

— LOD —	LIMIT OF DISTURBANCE
	TREE PROTECTION FENCE
CIP	CURB INTET PROTECTION
SIP	STANDARD INLET PROTECTION
TSOS	TEMPORARY STONE OUTLET STRUCTURE

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
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www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

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GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL TERMINATION

NO DEBIT APPROVAL BY THE PLANNING BOARD ONE YEAR FROM THE DATE OF THE PLAN APPROVAL IS GRANTED UNLESS THE PLAN IS ACTUALLY IMPLEMENTED.

FRANKLIN AVENUE SIDEWALK

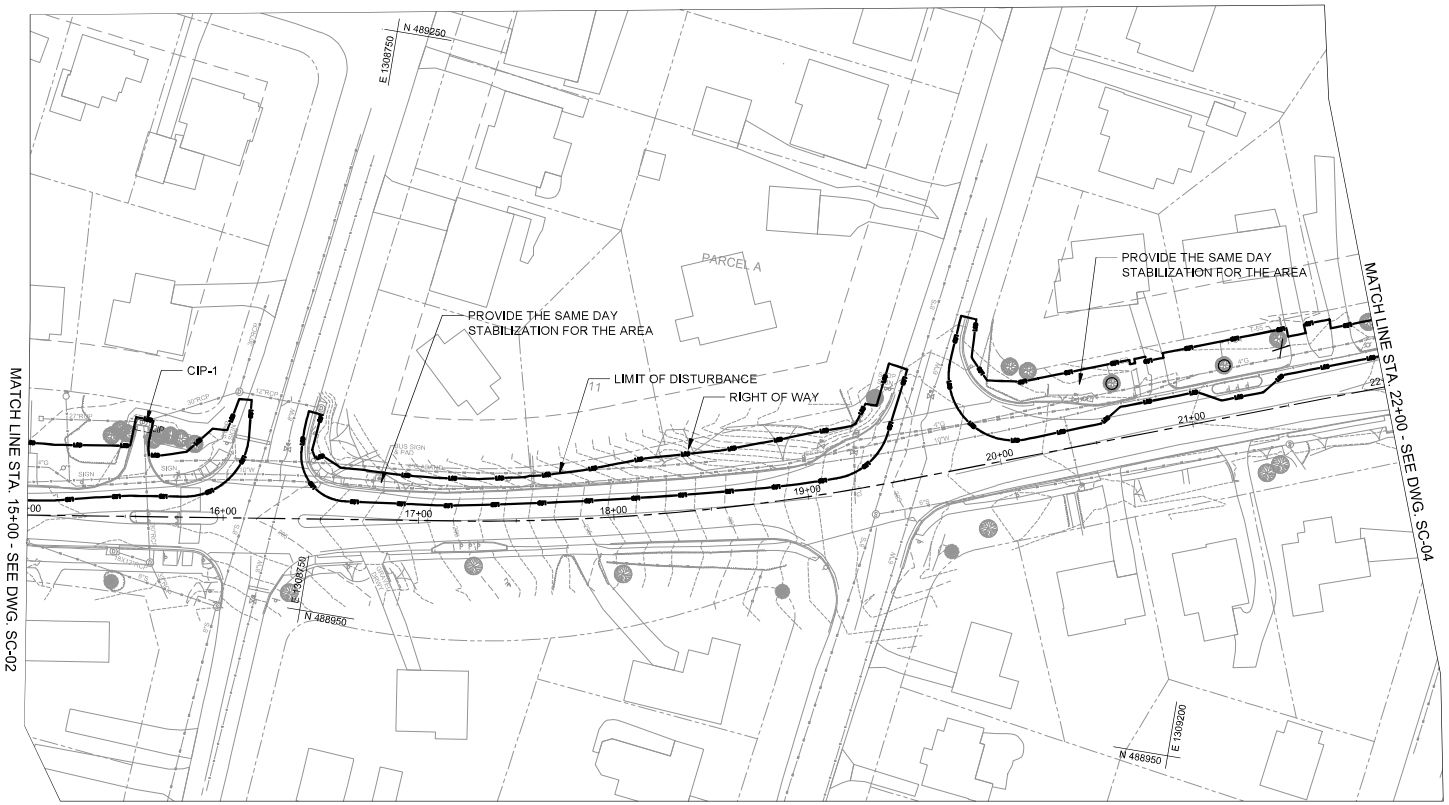
EROSION &SEDIMENT CONTROL PLAN PHASE I

SCALE :

SC-02

Project No.: TBD — 43 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase I Sheet.dwg
DATE: Mar 10, 2023 - 4:42pm



NOTES

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4. SEE THE GENERAL NOTES SHEET FOR THE SEQUENCE OF CONSTRUCTION OF PHASE 1.

CURB INLET PROTECTION(CIP)		
CIP-1	STA. 15+56.9, 45.2' LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
- TSOS — TEMPORARY STONE OUTLET STRUCTURE

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18035 Shady Grove Road, Rockville, MD, 20850
Phone: 301-926-3939 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
SEE TITLE SHEET FOR SIGNATURES
Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE I

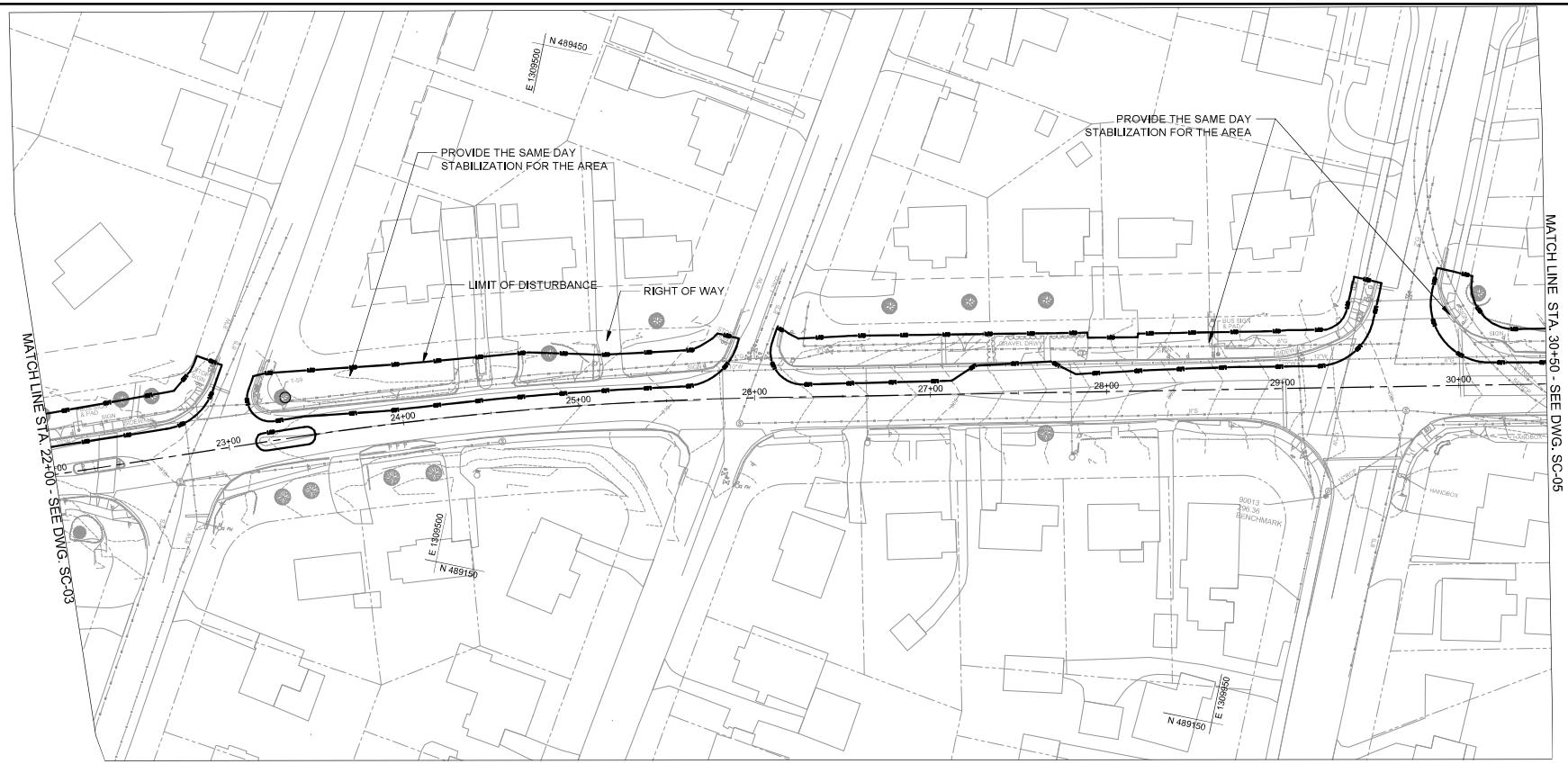
SCALE :

SC-03

Project No.: TBD — 44 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase I Sheet.dwg
DATE: Mar 10, 2023 - 4:48pm

SHEET NO.	TOTAL SHEETS
45	109



NOTES

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4. SEE THE GENERAL NOTES SHEET FOR THE SEQUENCE OF CONSTRUCTION OF PHASE 1.

LEGEND

— LOD —	LIMIT OF DISTURBANCE
TPF	TREE PROTECTION FENCE
CIP	CURB INTET PROTECTION
SIP	STANDARD INLET PROTECTION
TSOS	TEMPORARY STONE OUTLET STRUCTURE

0 30 60
SCALE: 1" = 30'

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OWNER/ADDRESS:
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100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL PERMIT NO.

NO DOT APPROVAL OF THIS PLAN IS ALLOWED ONE YEAR FROM THE DATE SIGNED BY THE MCDOT DIRECTOR OR DULY DELEGATED DESIGNEE THE PLAN MUST BE RESUBMITTED FOR REVIEW.

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE I

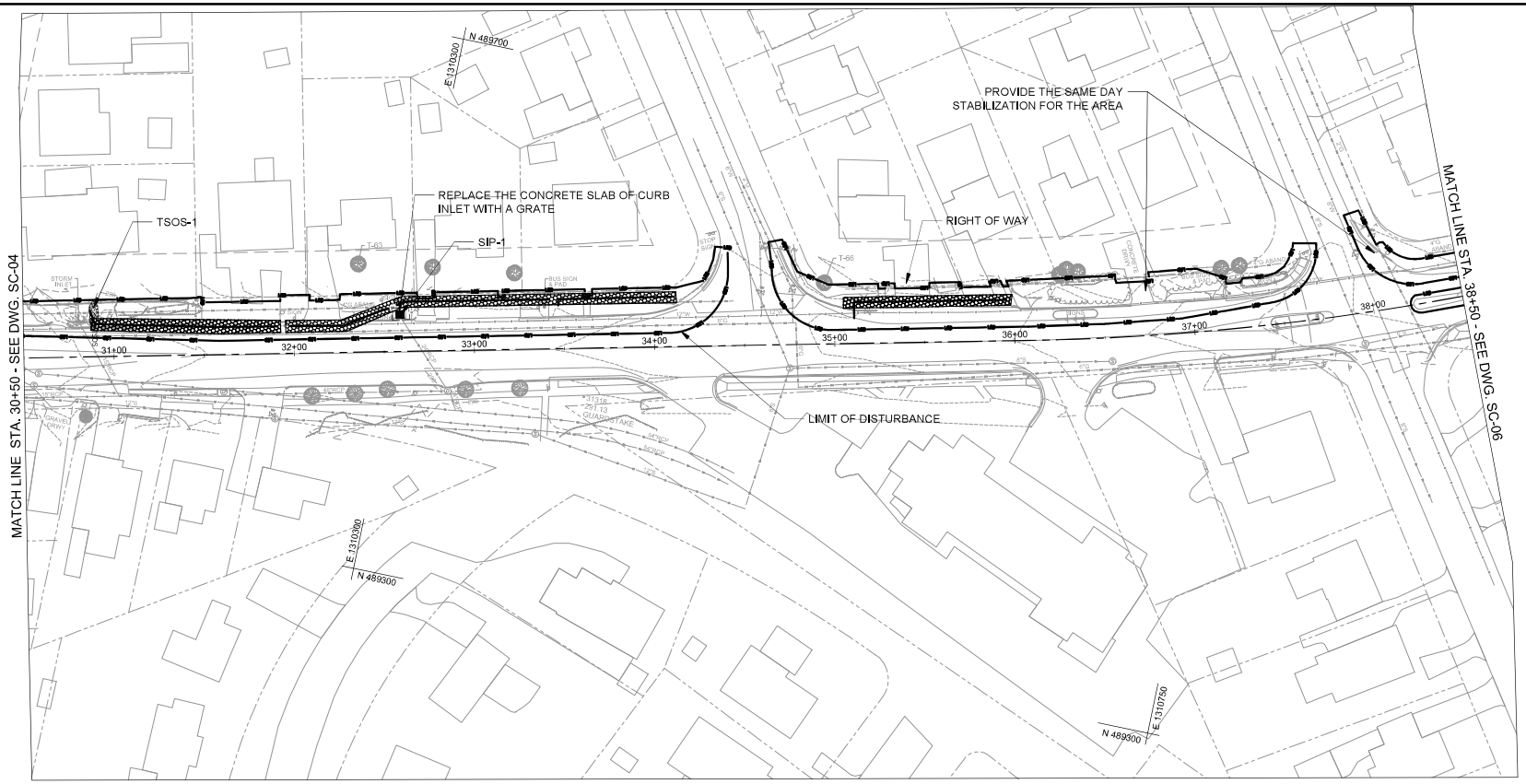
SCALE :

SC-04

Project No.: TBD

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase I Sheet.dwg
DATE: Mar 10, 2023 - 4:51pm

SHEET NO.	TOTAL SHEETS
46	109



NOTES

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4. SEE THE GENERAL NOTES SHEET FOR THE SEQUENCE OF CONSTRUCTION OF PHASE 1.

STANDARD INLET PROTECTION(SIP)		
SIP-1	STA. 32+59.0, 20.7' LT	1 EA

TEMP. STONE OUTLET PROTECTION(TSOS)		
TSOS-1	STA. 30+39.0, 23.5' LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
- TSOS — TEMPORARY STONE OUTLET STRUCTURE

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18825 Sandy Grove Road, Rockville, MD, 20850
Phone: 301-926-3939 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
SEE TITLE SHEET FOR SIGNATURES
Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:	Sediment Control Technical Requirements:	Administrative Requirements:
Reviewed — Date	Reviewed — Date	Reviewed — Date
Approved — Date	Approved — Date	SEDIMENT CONTROL CERTIFICATE NO.
VARIANCE NO.		NO DEBT APPROVAL OF THE PLANS IS EXPECTED ONE YEAR FROM THE DATE OF THE PLAN APPROVAL IF NO DEBT IS EXPECTED ONLY FOR THE PLANS WHICH WERE FINALIZED

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

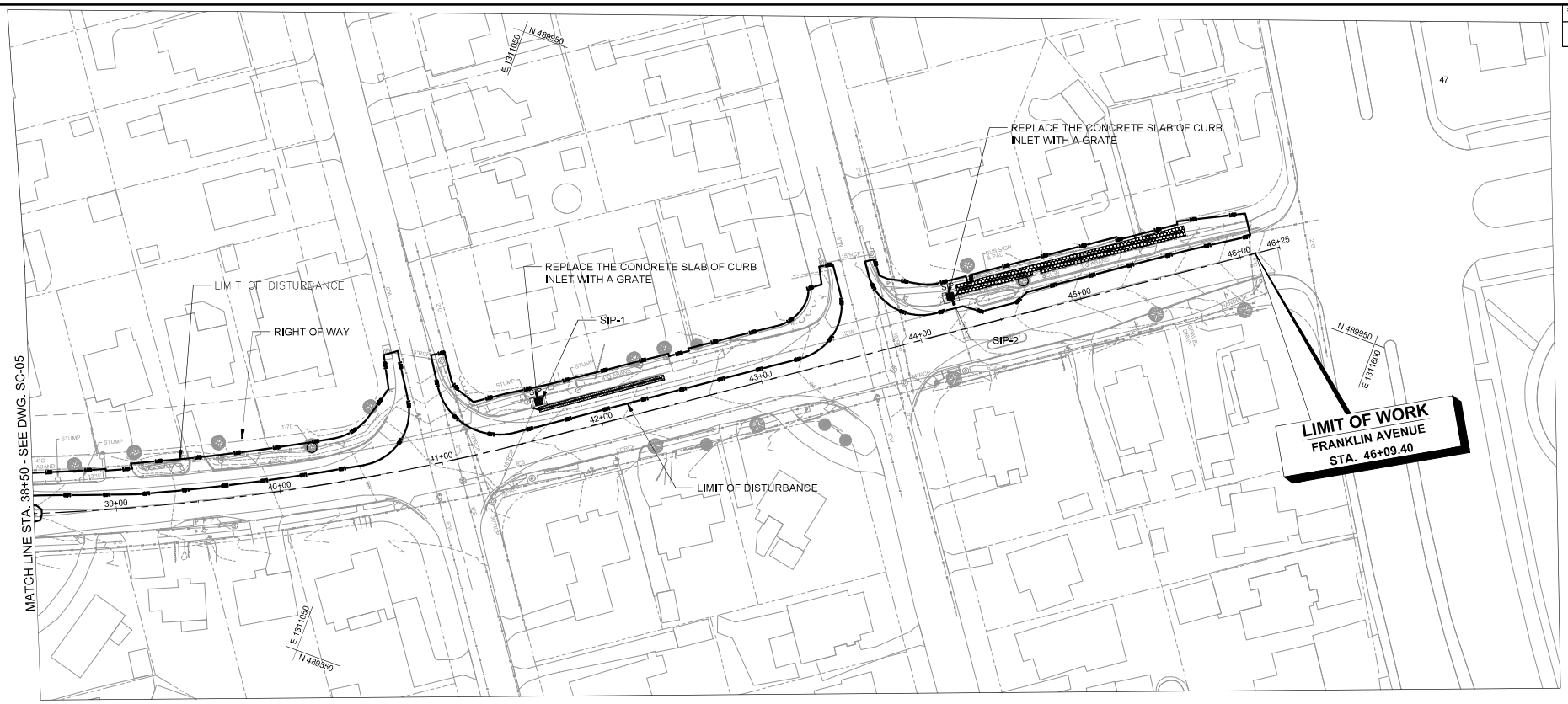
EROSION &SEDIMENT CONTROL PLAN PHASE I

SCALE : SC-05

Project No.: TBD — 46 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase I Sheet.dwg
DATE: Mar 10, 2023 - 4:53pm

SHEET NO.	TOTAL SHEETS
	109



NOTES

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4. SEE THE GENERAL NOTES SHEET FOR THE SEQUENCE OF CONSTRUCTION OF PHASE 1.

STANDARD INLET PROTECTION(SIP)		
SIP-1	STA. 41+15.9, 22.4' LT	1 EA
SIP-2	STA. 44+23.7, 21.3 LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
- TSOS — TEMPORARY STONE OUTLET STRUCTURE

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18835 Stony Grove Road, Rockville, MD, 20850
Phone: 301-525-3939 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: ____ Drawn by: ____ Checked by: ____

SEE TITLE SHEET FOR SIGNATURES

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE I

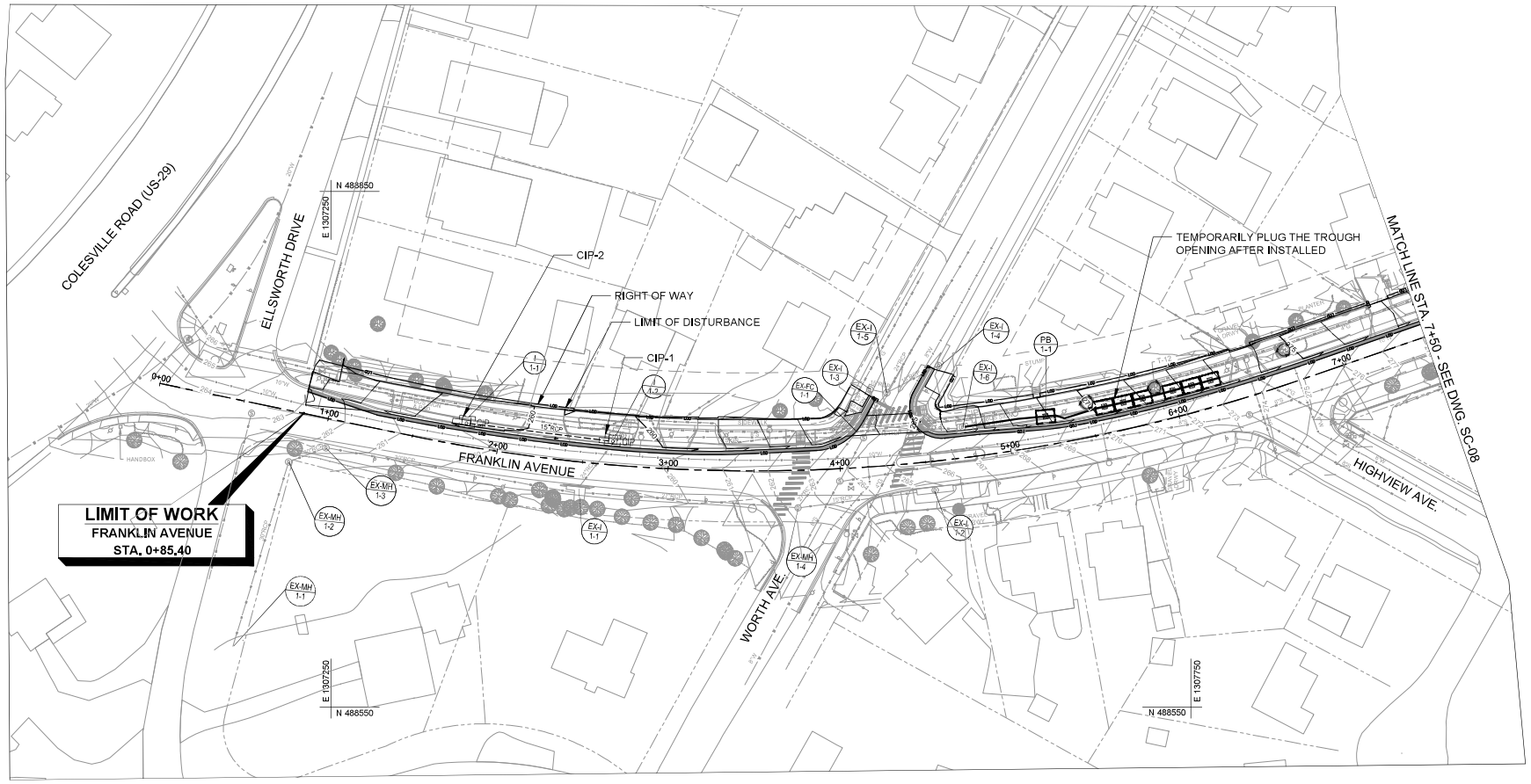
SCALE :

SC-06

Project No.: TBD — 47 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase I Sheet.dwg
DATE: Mar 10, 2023 - 4:57pm

SHEET NO.	TOTAL SHEETS
48	109



NOTES

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4. SEE THE GENERAL NOTES SHEET FOR THE SEQUENCE OF CONSTRUCTION OF PHASE 2.
5. THE CONTRACTOR SHALL INSTALL INLET PROTECTIONS AT THE SAME DAY THAT INLETS BECOME FUNCTIONAL.
6. EROSION AND SEDIMENT CONTROL MEASURES SHOWN IN GREY ARE INSTALLED UNDER PHASE I SHALL BE KEPT AND MAINTAINED AS LONG AS POSSIBLE.

CURB/STANDARD INLET PROTECTION(CIP/SIP)		
CIP-1	STA. 2+66.5, 12.20 LT	1 EA
CIP-2	STA. 1+75, 12.20 LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
- TSOS — TEMPORARY STONE OUTLET STRUCTURE

SHELADIA Engineers, Architects Development Consultants
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Phone: 301-926-3939 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
MCDPS

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TEMPLATE No.
NO DEBIT APPROVAL OF THIS PLAN IS ALLOWED ONE YEAR FROM THE DATE SHOWN ON THE MCDPS APPROVAL LETTER UNLESS SIGNED FOR AN EXTENSION BY THE DIRECTOR OF MCDPS

FRANKLIN AVENUE SIDEWALK

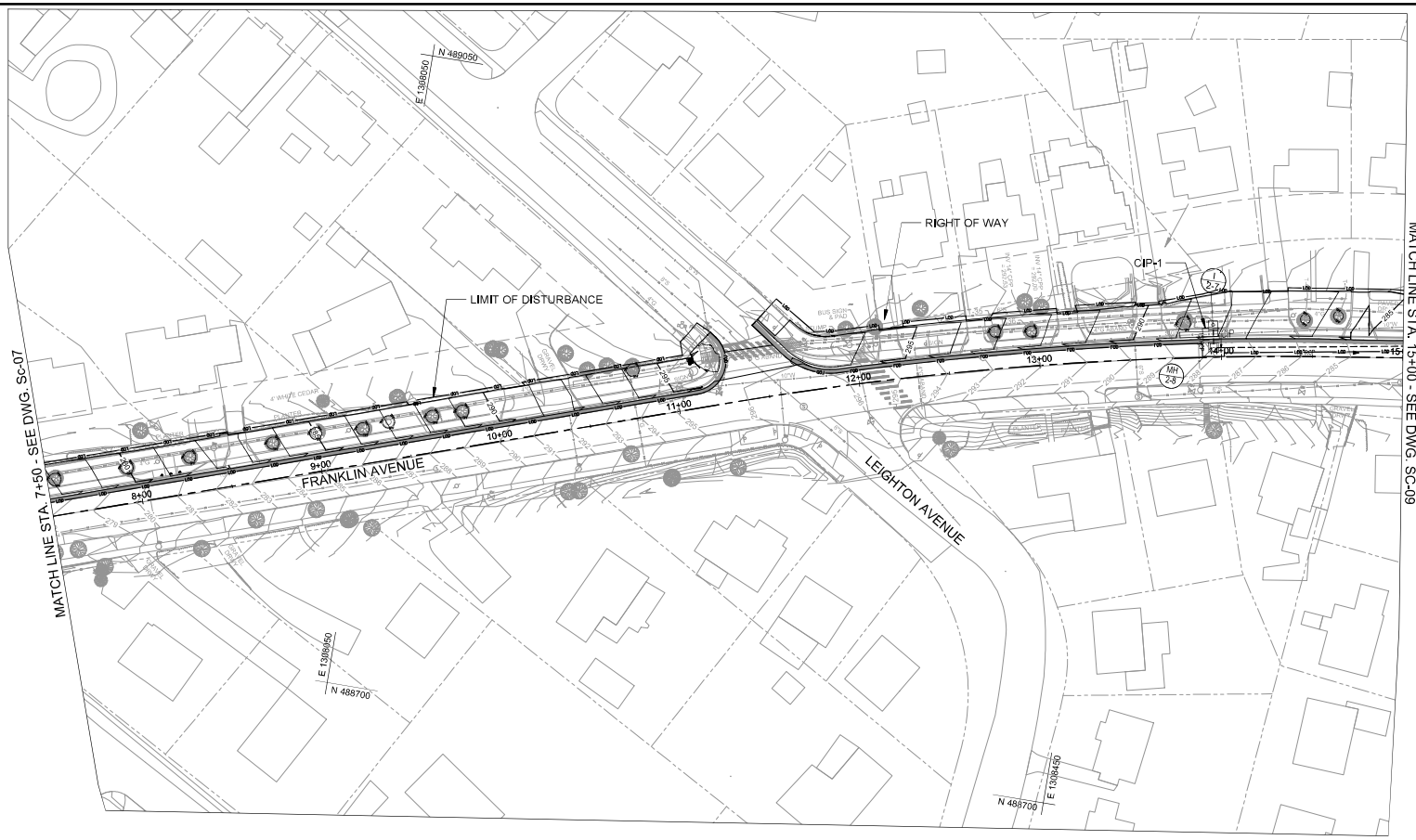
EROSION &SEDIMENT CONTROL PLAN PHASE II

SCALE :

SC-07

Project No.: TBD — 48 of 109

SHEET NO.	TOTAL SHEETS
49	109



NOTES

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4. SEE THE GENERAL NOTES SHEET FOR THE SEQUENCE OF CONSTRUCTION OF PHASE 2.
5. THE CONTRACTOR SHALL INSTALL INLET PROTECTIONS AT THE SAME DAY THAT INLETS BECOME FUNCTIONAL.
6. EROSION AND SEDIMENT CONTROL MEASURES SHOWN IN GREY ARE INSTALLED UNDER PHASE I SHALL BE KEPT AND MAINTAINED AS LONG AS POSSIBLE.

CURB INLET PROTECTION(CIP)		
CIP-1	STA. 13+95.90, 11.30 LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
- TSOS — TEMPORARY STONE OUTLET STRUCTURE

SHELADIA Engineers, Architects Development Consultants
Corporation
18035 Sandy Grove Road, Rockville, MD, 20850
Phone: 301-525-3939 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
MCDPS

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL PERMIT NO.

MCDOT APPROVAL OF THIS PLAN IS ALLOWED ONE YEAR FROM THE DATE SIGNED BY THE MCDOT. REVIEWED PLANS NOT STAMPED VALID FOR ONE YEAR WILL BE DISCARDED.

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE II

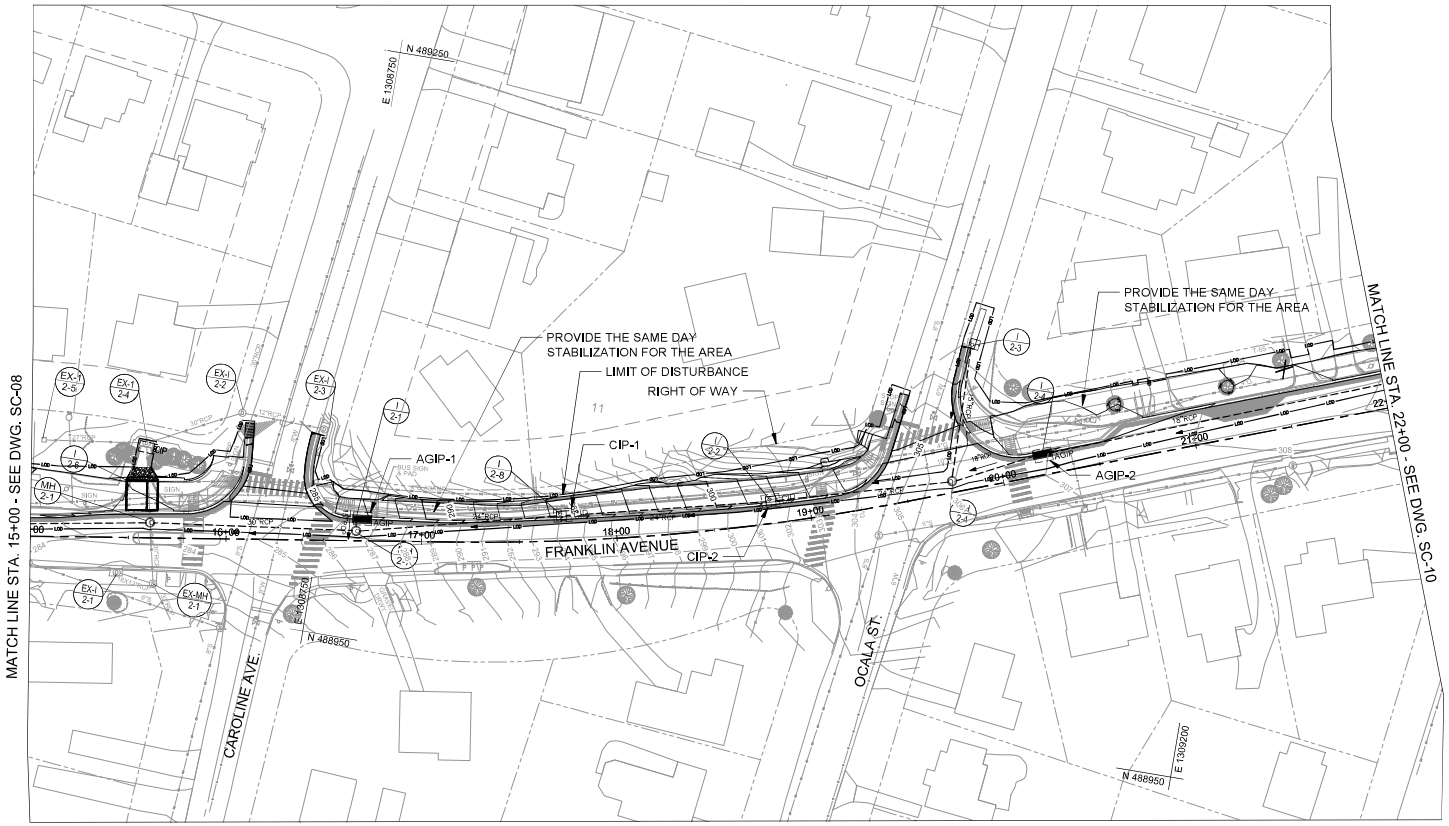
SCALE :

SC-08

Project No.: TBD

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase II Sheet.dwg
DATE: Mar 15, 2023 - 10:35am

SHEET NO.	TOTAL SHEETS
50	109



CURB INLET PROTECTION(CIP)		
CIP-1	STA. 17+72.10, 12.30' LT	1 EA
CIP-2	STA. 18+80, 10.80' LT	1 EA

AT GRADE INLET PROTECTION(AGIP)		
AGIP-1	STA. 16+66.1, 12.5' LT	1 EA
AGIP-2	STA. 20+19.8, 12.10' LT	1 EA

NOTES

1. NO SEDIMENT LADEN RUNOFF SHALL LEAVE THE WORK AREA UNLESS DIRECTED TO AN MDE APPROVED SEDIMENT CONTROL DEVICES.
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LEGEND

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- TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
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NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date

Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date

SEDIMENT CONTROL TERMINATION

NO DEBIT APPROVAL BY THE PLANNING BOARD ONE YEAR FROM THE DATE OF THE PLAN APPROVAL IS GRANTED UNLESS THE PLANNING BOARD HAS ALSO GRANTED ONLY THE PLAN PRELIMINARY APPROVAL

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE II

SCALE :

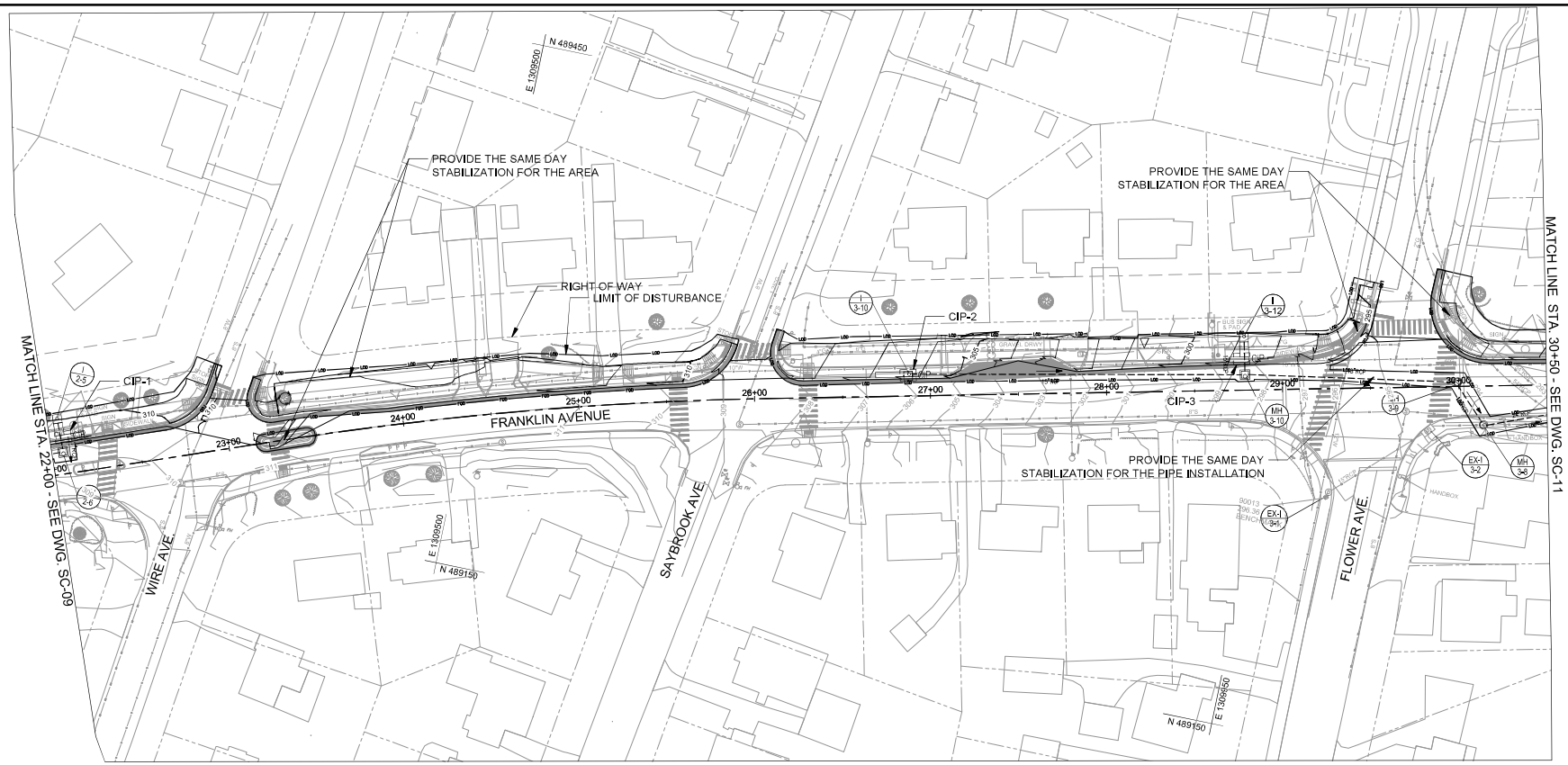
SC-09

Project No.: TBD

50 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase II Sheet.dwg
DATE: Mar 15, 2023 - 10:36am

SHEET NO.	TOTAL SHEETS
51	109



NOTES

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CURB INLET PROTECTION(CIP)		
CIP-1	STA. 22+06.2, 19.2' LT	1 EA
CIP-2	STA. 26+87.7, 11.0' LT	1 EA
CIP-3	STA. 28+78.3, 15.98' LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
- TSOS — TEMPORARY STONE OUTLET STRUCTURE

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NO.	REVISION	DATE	BY

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GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE II

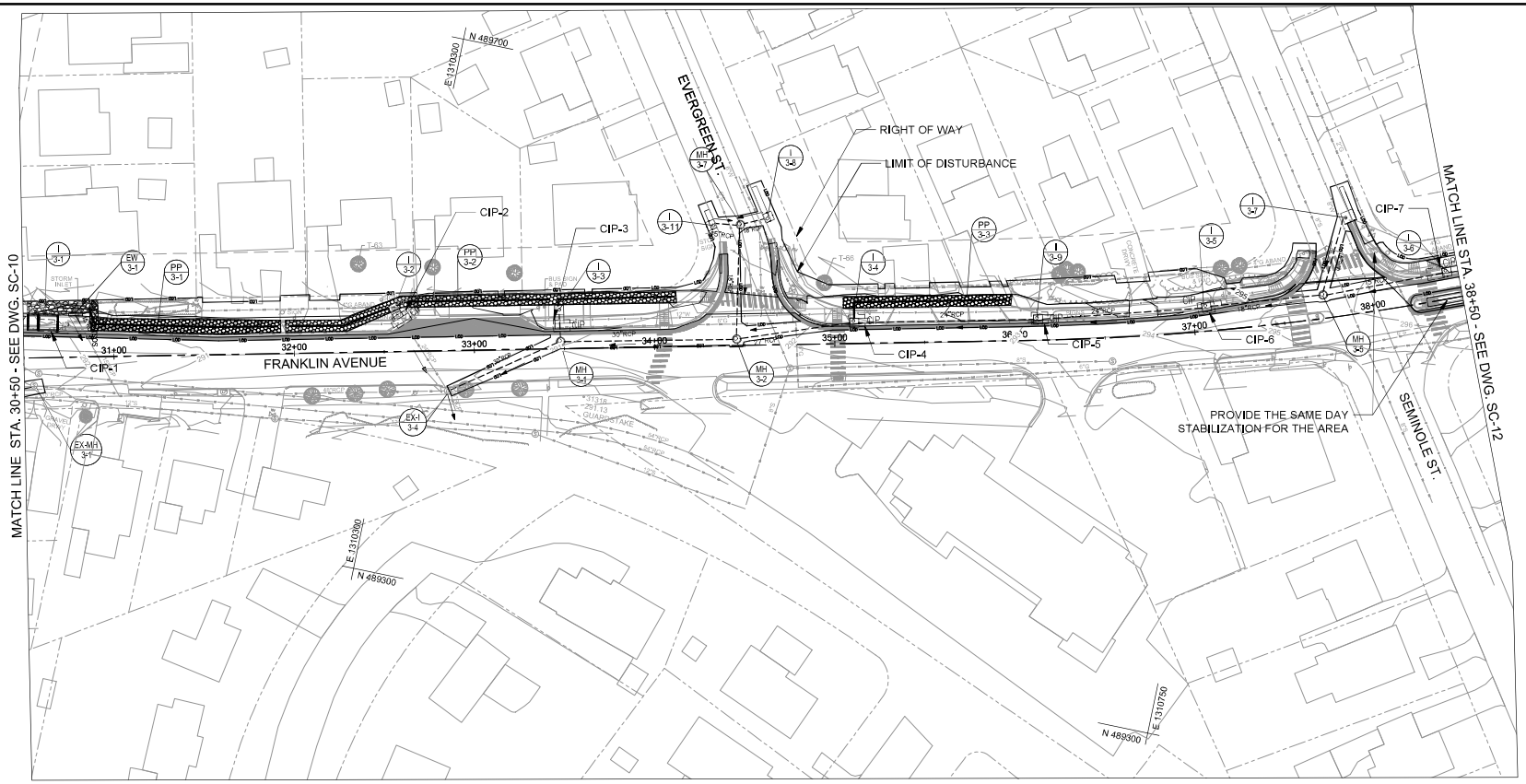
SCALE :

SC-10

Project No.: TBD — 51 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase II Sheet.dwg
DATE: Mar 15, 2023 - 10:36am

SHEET NO.	TOTAL SHEETS
52	109



NOTES

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CURB INLET PROTECTION(CIP)		
CIP-1	STA. 30+61.4, 15.30' LT	1 EA
CIP-2	STA. 32+60.5, 16.0' LT	1 EA
CIP-3	STA. 33+47.90, 11.0' LT	1 EA
CIP-4	STA. 35+11, 11.0' LT	1 EA
CIP-5	STA. 36+13.05, 11.0' LT	1 EA
CIP-6	STA. 37+07.4, 14.3' LT	1 EA
CIP-7	STA. 38+37.30, 14.3' LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
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NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL CERTIFICATE No.

NO DEBT APPROVAL OF THIS PLAN IS ALLOWED ONE YEAR FROM THE DATE SIGNED BY THE MCDPS DIRECTOR OR DULY AUTHORIZED DESIGNEE FOR PLAN PERFORMANCE BONDING

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE II

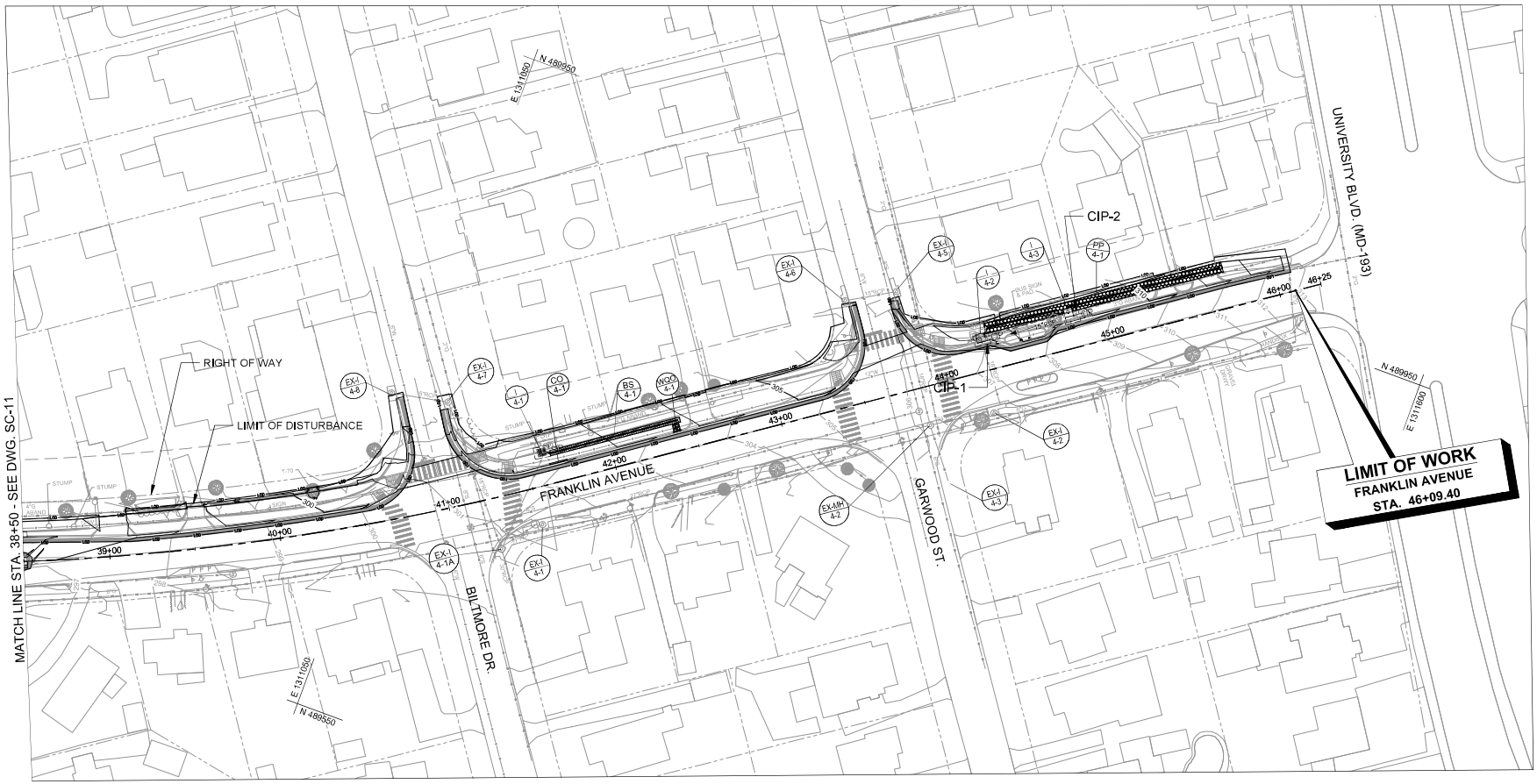
SCALE : AS SHOWN

SC-11

Project No.: TBD — 52 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase II Sheet.dwg
DATE: Mar 15, 2023 - 10:37am

SHEET NO.	TOTAL SHEETS
53	109



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CURB INLET PROTECTION(CIP)		
CIP-1	STA. 44+24.9, 17.03' LT	1 EA
CIP-2	STA. 44+78.31, 15.50 LT	1 EA

LEGEND

- LOD — LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE
- CIP — CURB INTET PROTECTION
- SIP — STANDARD INLET PROTECTION
- TSOS — TEMPORARY STONE OUTLET STRUCTURE

SHELADIA Engineers, Architects Development Consultants
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NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date
SEDIMENT CONTROL TECHNICIAN
NO DEPT APPROVAL OF THIS PLAN IS ALLOWED ONE YEAR FROM THE DATE OF THE PLAN APPROVAL IF NO PROGRESS HAS BEEN MADE TO THE PLAN THAT MEETS A STANDARD

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

EROSION &SEDIMENT CONTROL PLAN PHASE II

SCALE :

SC-12

Project No.: TBD — 53 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pES-Phase II Sheet.dwg
DATE: Mar 15, 2023 - 10:38am

SHEET NO.	TOTAL SHEETS
	109

STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. THE PERMITTEE SHALL NOTIFY THE DEPARTMENT OF PERMITTING SERVICES (DPS) FORTY-EIGHT (48) HOURS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND, UNLESS WAIVED BY THE DEPARTMENT, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN THEM OR THEIR REPRESENTATIVE, THEIR ENGINEER AND AN AUTHORIZED REPRESENTATIVE OF THE DEPARTMENT.

2. THE PERMITTEE MUST OBTAIN INSPECTION AND APPROVAL BY DPS AT THE FOLLOWING POINTS:

A. AT THE REQUIRED PRE-CONSTRUCTION MEETING.

B. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES AND PRIOR TO ANY OTHER LAND DISTURBING ACTIVITY.

C. DURING THE INSTALLATION OF A SEDIMENT BASIN OR STORMWATER MANAGEMENT STRUCTURE AT THE REQUIRED INSPECTION POINTS (SEE INSPECTION CHECKLIST ON PLAN). NOTIFICATION PRIOR TO COMMENCING CONSTRUCTION IS MANDATORY.

D. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S).

E. PRIOR TO FINAL ACCEPTANCE.

3. THE PERMITTEE SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE, SHALL HAVE THEM INSPECTED AND APPROVED BY THE DEPARTMENT PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES, SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM THE DEPARTMENT.

4. THE PERMITTEE SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED PUBLIC THOROUGHFARE(S). ALL MATERIALS DEPOSITED ONTO PUBLIC THOROUGHFARE(S) SHALL BE REMOVED IMMEDIATELY.

5. THE PERMITTEE SHALL INSPECT PERIODICALLY AND MAINTAIN CONTINUOUSLY IN EFFECTIVE OPERATING CONDITION, ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIME AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM THE DEPARTMENT. THE PERMITTEE IS RESPONSIBLE FOR IMMEDIATELY REPAIRING OR REPLACING ANY SEDIMENT CONTROL MEASURES WHICH HAVE BEEN DAMAGED OR REMOVED BY THE PERMITTEE OR ANY OTHER PERSON.

6. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

A) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND

B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
ALL AREAS DISTURBED OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST BE MINIMIZED AND STABILIZED IMMEDIATELY. MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.

7. THE PERMITTEE SHALL APPLY SOD, SEED, AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED ON THAT AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS, AND AREAS WITHIN FIFTY (50) FEET OF A BUILDING UNDER CONSTRUCTION MAY BE EXEMPT FROM THIS REQUIREMENT, PROVIDED THAT EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED AND MAINTAINED TO PROTECT THOSE AREAS.

8. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, THE PERMITTEE SHALL STABILIZE ALL CONTRIBUTORY DISTURBED AREAS WITH REQUIRED SOIL AMENDMENTS AND TOPSOIL, USING SOD OR AN APPROVED PERMANENT SEED MIXTURE AND AN APPROVED ANCHORED MULCH. WOOD FIBER MULCH MAY ONLY BE USED IN SEEDING SEASON WHEN THE SLOPE DOES NOT EXCEED 10% AND GRADING HAS BEEN DONE TO PROMOTE SHEET FLOW DRAINAGE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED WITHIN SEVEN (7) CALENDAR DAYS OF ESTABLISHMENT. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY, AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, AN APPROVED TEMPORARY SEED AND STRAW ANCHORED MULCH SHALL BE APPLIED TO DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE COMPLETED PRIOR TO THE FOLLOWING APRIL 15.

9. THE SITE PERMIT, WORK, MATERIALS, APPROVED SC/SM PLANS, AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY DULY AUTHORIZED OFFICIALS OF MONTGOMERY COUNTY.

10. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO LOWER THE WATER DOWN SLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. MECHANICAL DEVICES MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.

11. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITHIN 3 CALENDAR DAYS OF ESTABLISHMENT WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING OR BY OTHER APPROVED STABILIZATION MEASURES.

12. SEDIMENT CONTROL DEVICES SHALL BE REMOVED, WITH PERMISSION OF THE DEPARTMENT, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.

13. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS OR ON RESIDENTIAL LOTS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NONMAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN WITH A LOW-MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATIVE STABILIZATION.

14. THE PERMITTEE SHALL INSTALL A SPLASHBLOCK AT THE BOTTOM OF EACH DOWNSPOUT UNLESS THE DOWNSPOUT IS CONNECTED BY A DRAIN LINE TO AN ACCEPTABLE OUTLET.

15. FOR FINISHED GRADING, THE PERMITTEE SHALL PROVIDE ADEQUATE GRADIENTS SO AS TO PREVENT WATER FROM STANDING ON THE SURFACE OF LAWNS MORE THAN TWENTY-FOUR (24) HOURS AFTER THE END OF A RAINFALL, EXCEPT IN DESIGNATED DRAINAGE COURSES AND SWALE FLOW AREAS, WHICH MAY DRAIN AS LONG AS FORTY-EIGHT (48) HOURS AFTER THE END OF A RAINFALL.

16. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A BUILDING WHICH IS EXISTING OR UNDER CONSTRUCTION. NO BUILDING MAY BE CONSTRUCTED WITHIN 20 FEET OF A SEDIMENT TRAP OR BASIN.

17. ALL INLETS IN NON-SUMP AREAS SHALL HAVE ASPHALT BERMS INSTALLED AT THE TIME OF BASE PAVING ESTABLISHMENT.

18. THE SEDIMENT CONTROL INSPECTOR HAS THE OPTION OF REQUIRING ADDITIONAL SEDIMENT CONTROL MEASURES, AS DEEMED NECESSARY.

19. ALL TRAP ELEVATIONS ARE RELATIVE TO THE OUTLET ELEVATION, WHICH MUST BE ON EXISTING UNDISTURBED GROUND.

20. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

21. SEDIMENT TRAP(S)/BASIN(S) SHALL BE CLEANED OUT AND RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO THE POINT OF ONE-HALF (1/2) THE WET STORAGE DEPTH OF THE TRAP/BASIN (1/4 THE WET STORAGE DEPTH FOR ST-III) OR WHEN REQUIRED BY THE SEDIMENT CONTROL INSPECTOR.

22. SEDIMENT REMOVED FROM TRAPS/BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN.

23. ALL SEDIMENT BASINS AND TRAPS MUST BE SURROUNDED WITH A WELDED WIRE SAFETY FENCE. THE FENCE MUST BE AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THE TWO INCHES IN WIDTH AND FOUR INCHES IN HEIGHT, WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.

24. NO EXCAVATION IN THE AREAS OF EXISTING UTILITIES IS PERMITTED UNLESS THEIR LOCATION HAS BEEN DETERMINED. CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK.

25. OFF-SITE SPOIL OR BORROW AREAS MUST HAVE PRIOR APPROVAL BY DPS.

26. SEDIMENT TRAP/BASIN DEWATERING FOR CLEANOUT OR REPAIR MAY ONLY BE DONE WITH THE DPS INSPECTOR'S PERMISSION. THE INSPECTOR MUST APPROVE THE DEWATERING METHOD FOR EACH APPLICATION. THE FOLLOWING METHODS MAY BE CONSIDERED:

A. PUMP DISCHARGE MAY BE DIRECTED TO ANOTHER ON-SITE SEDIMENT TRAP OR BASIN, PROVIDED IT IS OF SUFFICIENT VOLUME AND THE PUMP INTAKE IS FLOATED TO PREVENT AGITATION OR SUCTION OF DEPOSITED SEDIMENTS; OR

B. THE PUMP INTAKE MAY UTILIZE A REMOVABLE PUMPING STATION AND MUST DISCHARGE INTO AN UNDISTURBED AREA THROUGH A NON-EROSIVE OUTLET; OR

C. THE PUMP INTAKE MAY BE FLOATED AND DISCHARGE INTO A DIRT BAG (12 OZ. NON-WOVEN FABRIC), OR APPROVED EQUIVALENT, LOCATED IN AN UNDISTURBED BUFFER AREA.
REMEMBER: DEWATERING OPERATION AND METHOD MUST HAVE PRIOR APPROVAL BY THE DPS INSPECTOR.

27. THE PERMITTEE MUST NOTIFY THE DEPARTMENT OF ALL UTILITY CONSTRUCTION ACTIVITIES WITHIN THE PERMITTED LIMITS OF DISTURBANCE PRIOR TO THE COMMENCEMENT OF THOSE ACTIVITIES.

28. TOPSOIL MUST BE APPLIED TO ALL PERVIOUS AREAS WITHIN THE LIMITS OF DISTURBANCE PRIOR TO PERMANENT STABILIZATION IN ACCORDANCE WITH MDE "STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS".

SEQUENCE OF CONSTRUCTION

A. STANDARD WORDING FOR INITIAL STEPS OF THE SEQUENCE OF CONSTRUCTION ON SEDIMENT CONTROL PLANS FOR SITES EXEMPT FROM THE FOREST CONSERVATION LAW.

1. PRIOR TO CLEARING OF TREES, INSTALLING SEDIMENT CONTROL MEASURES,OR GRADING, A PRECONSTRUCTION MEETING MUST BE CONDUCTED ON-SITEWITH THE MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES SEDIMENT CONTROL INSPECTOR (240) 777-0311 (48 HOURS NOTICE),THE OWNERS REPRESENTATIVE, AND THE SITE ENGINEER. IN ORDER FOR THE MEETING TO OCCUR, THE APPLICANT MUST PROVIDE ONE PAPER SET OF APPROVED SEDIMENT CONTROL PLANS TO THE MCDPS SEDIMENT CONTROL INSPECTOR AT THE PRECONSTRUCTION MEETING. IF NO PLANS ARE PROVIDED, THE MEETING SHALL NOT OCCUR AND WILL NEED TO BERESCHEDULED PRIOR TO COMMENCING ANY WORK.
2. THE LIMITS OF DISTURBANCE MUST BE FIELD MARKED PRIOR TO CLEARINGOF TREES, INSTALLATION OF SEDIMENT CONTROL MEASURES,CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITIES.
3. CLEAR AND GRADE FOR INSTALLATION OF SEDIMENT CONTROL DEVICES.
4. INSTALL SEDIMENT CONTROL DEVICES. TRAPS AND BASINS SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTION OF ANY EARTH DIKES THAT CONVEY DRAINAGE TO A TRAP AND/OR BASIN.
5. ONCE THE SEDIMENT CONTROL DEVICES ARE INSTALLED, THE PERMITTEE MUST OBTAIN WRITTEN APPROVAL FROM THE MCDPS INSPECTOR BEFORE PROCEEDING WITH ANY ADDITIONAL CLEARING, GRUBBING, OR GRADING.

PHASE I- CLEARING AND GRUBBING

1. THE PERMITTEE SHALL NOTIFY THE DEPARTMENT OF PERMITTING SERVICES (DPS) FORTY-EIGHT (48) HOURS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY.
2. CLEAR AND GRUB THE AREAS FOR THE CONSTRUCTION OF STABILIZED CONSTRUCTION ENTRANCES AS NEEDED.
3. CLEAR AND GRUB THE AREAS FOR THE INSTALLATION OF THE EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.
4. BEGIN CLEARING, GRUBBING, AND GRADING THE AREAS WITHIN THE LOD.
5. MAINTAIN THE LIMIT OF DISTURBANCE MUST BE FIELD MARKED BY SURVEYOR PRIOR TO CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION OR OTHER LAND DISTURBING ACTIVITIES. FLAG ALL TREES TO BE SAVED PRIOR TO CLEARING AND GRUBBING OPERATIONS PER FOREST CONSERVATION PLAN.
6. ALL STREAM, WETLAND AREAS, FLOODPLAINS AND 25' WETLAND BUFFERS WILL BE FLAGGED AND PROTECTED WITH EROSION AND SEDIMENT CONTROLS TO AVOID IMPACTS.
7. THE SEDIMENT CONTROL DEVICE AFTER CLEARING/GRUBBING.
8. THE SAME DAY STABILIZATION SHALL BE PROVIDED FOR THE DISTURBED AREAS WHERE ARE NOT DRAINING TO THE EROSION AND SEDIMENT CONTROL DEVICES.

PHASE II-SIDEWALK CONSTRUCTION

1. PERFORM GRADING AND INSTALL THE PROPOSED STORM DRAIN SYSTEMS, AND INSTALL THE INLET PROTECTION AS SHOWN ON THE PLANS. TEMPORARILY PLUG THE TROUGH OPENING OF THE PLATER BOX AFTER INSTALLED.
2. CONSTRUCT THE FULL DEPTH SIDEWALK AND TRANCE PAVEMENT, RETAINING WALLS AND OTHER ROADWAY WORKS.
3. WITH APPROVAL FROM THE MCDPS INSPECTOR, REMOVE THE EROSION AND SEDIMENT CONTROL MEASURED INSTALLED DURING PHASE I BUT NOT NEEDED ANY MORE.
4. AFTER THE DISTURBED CONTRIBUTING AREAS OF THE PERVIOUS CONCRETE SIDEWALK IS COMPLICATEDLY STABILIZED, START TO CONSTRUCT THE PERVIOUS CONCRETE SIDEWALK AND STABILIZE THE AREAS DISTURBED BY THIS PROCESS.
5. WITH THE APPROVAL FROM THE MCDPS INSPECTOR, REMOVE THE REMAINING SEDIMENT CONTROL MEASURES.
6. PREPARE AND SUBMIT TO MCDPS FOR REVIEW AND APPROVAL AN AS-BUILT PLAN OF THE STORMWATER MANAGEMENT FACILITIES.

SITE INFORMATION

TOTAL DISTURBED AREA: 2.02 AC
TOTAL VOLUME OF CUT: 1293 CU.YD
TOTAL VOLUME OF FILL: 1037 CU.YD

SHELADIA Engineers, Architects Development Consultants
Corporation 1987
18835 Stony Grove Road, Rockville, MD, 20850
Phone: 301-525-1935 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
SEE TITLE SHEET FOR SIGNATURES
Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
MCDPS

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TERMINATION
MCDPS APPROVAL OF THE PLAN IS VALID FOR ONE YEAR FROM THE DATE OF APPROVAL. IF CONSTRUCTION HAS NOT STARTED WITHIN THE ONE YEAR THE PLAN IS CONSIDERED EXPIRED

FRANKLIN AVENUE SIDEWALK

GENERAL NOTES

SCALE : AS SHOWN

SC-13

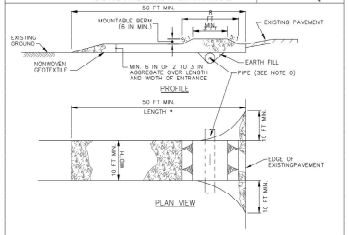
Project No.: TBD ____ of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pES-Details.dwg
DATE: Mar 09, 2023 - 3:18pm

SHEET NO.	TOTAL SHEETS
	109

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF COMPACTED STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VALUMBING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY AU MOVING MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS SPILLED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

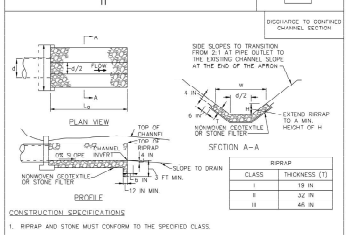
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL D-4-1-B ROCK OUTLET PROTECTION II

STANDARD SYMBOL ROPII

DISCHARGE TO DEFINED CHANNEL SECTION



RIPRAP	
CLASS	THICKNESS (T)
I	19 IN
II	32 IN
III	45 IN

CONSTRUCTION SPECIFICATIONS

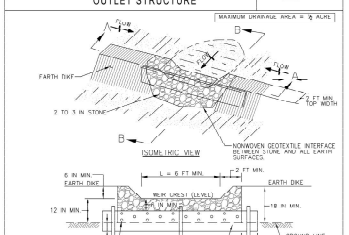
1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (6 TO 12 INCH STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
5. CONSTRUCT RIPRAP OUTFIT TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE STONE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 10 INCHES.
7. CONSTRUCT APRON WITH NO SLOPE ALONG ITS LENGTH AND WITHOUT DEPRESSIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-7 TEMPORARY STONE OUTLET STRUCTURE

STANDARD SYMBOL TSOS



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-7 TEMPORARY STONE OUTLET STRUCTURE

STANDARD SYMBOL TSOS

CONSTRUCTION SPECIFICATIONS

1. PROVIDE STORAGE VOLUME AS SPECIFIED ON APPROVED PLANS.
2. USE NONWOVEN GEOTEXTILE ON INTERFACE BETWEEN GROUND AND STONE.
3. PERFORATE BAFFLE BOARD WITH 3 ROWS OF 1 INCH DIAMETER HOLES 6 INCHES ON CENTER, EMBED A MINIMUM OF 4 INCHES INTO GROUND, AND EXTEND BAFFLE BOARD MINIMUM OF 12 INCHES INTO EARTH DIKE.
4. USE CLEAN 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE. PLACE WOVEN MONOFILAMENT GEOTEXTILE ON UPSTREAM FACE AND COVER WITH A MINIMUM OF 6 INCHES OF ADDITIONAL STONE.
5. USE NONWOVEN AND WOVEN MONOFILAMENT GEOTEXTILES AS SPECIFIED IN SECTION H-1 MATERIALS.
6. SET WEIR CREST OF STONE 6 INCHES LOWER THAN THE TOP OF EARTH DIKE. USE MINIMUM LENGTH OF 6 FEET FOR WEIR CREST.
7. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO WITHIN 6 INCHES OF WEIR CREST. REPLACE GEOTEXTILE AND STONE FACING WHEN STRUCTURE CEASES TO DRAIN. MAINTAIN LINE, GRADE, AND CROSS SECTION.
8. UPON REMOVAL OF STONE OUTLET STRUCTURE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

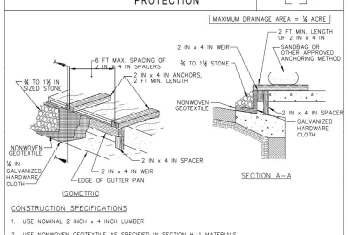
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-3 CURB INLET PROTECTION

STANDARD SYMBOL CIP



CONSTRUCTION SPECIFICATIONS

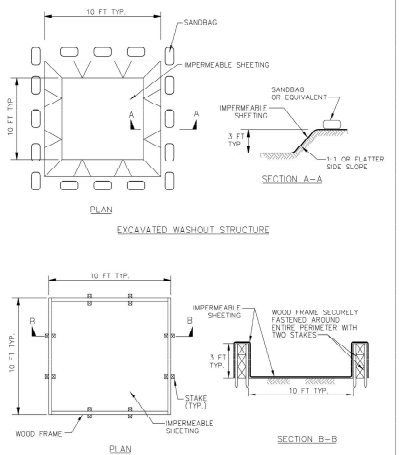
1. USE NOMINAL 2 INCH x 4 INCH LUMBER.
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
4. ATTACH A CONTINUOUS PIECE OF ¼ INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING 12 FEET BEYOND THE LAST SPACER.
5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
8. ATTACH A CONTINUOUS PIECE OF ¼ INCH GALVANIZED HARDWARE CLOTH AND PLACE ON TOP OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
9. AT NON SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
10. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL CWS



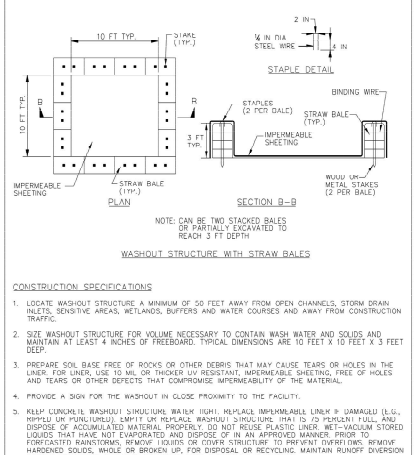
1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL CWS



CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., PUNCTURE OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER PRIOR TO FORECASTED RAINSTORMS. REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

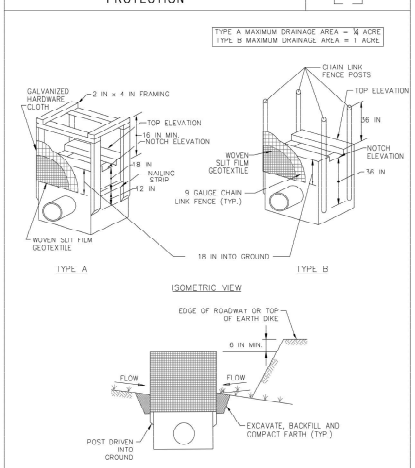
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL SIP



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL SIP

CONSTRUCTION SPECIFICATIONS

1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
3. FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 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 2X4 FRAME AS SHOWN. STRETCH ½ INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.

   FOR TYPE B, USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
4. BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
5. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Engineers, Architects Development Consultants
18025 Shady Grove Road, Rockville, MD, 20850
Phone: 301-926-3930 Fax: 301-948-7174
www.shelbiaiv.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:

DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:

Reviewed — Date

Approved — Date

Sediment Control Technical Requirements:

Reviewed — Date

Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:

Reviewed — Date

SEDIMENT CONTROL INSPECTOR

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL ONLY. PLEASE REFER TO MCDPS FOR ADDITIONAL REQUIREMENTS.

FRANKLIN AVENUE SIDEWALK

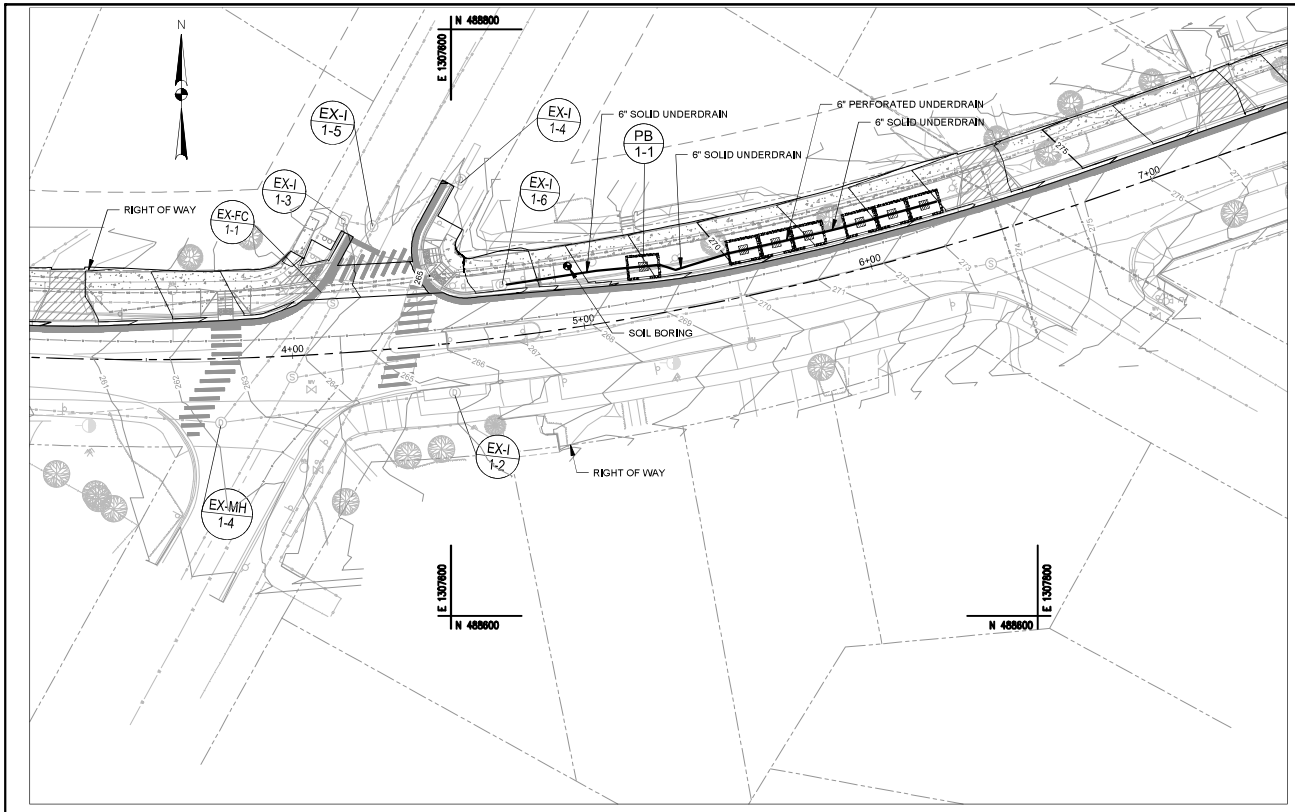
EROSION AND SEDIMENT CONTROL DETAILS

SCALE : AS SHOWN

SC-14

Project No.: TBD ____ of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pES-Details.dwg
DATE: Mar 09, 2023 - 3:26pm



CONSTRUCTION INSPECTION CHECK-OFF LIST FOR MICRO BIORETENTION FACILITY

STAGE	COUNTY INSPECTOR	OWNER/ DEVELOPER
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS Inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. **Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead.** Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.	INITIALS/DATE	INITIALS/DATE
1. Excavation for Micro Bioretention facility conforms to approved plans		
2. Placement of stone backfill and underdrain system conforms to approved plans		
3. Placement of filter media conforms to approved plans		
4. Connecting pipes and/or grading conveyance to the facility constructed per the approved plans		
5. Final grading and permanent stabilization conforms to approved plans		

CONSTRUCTION INSPECTION CHECK-OFF LIST FOR SWALES

STAGE	MCDPS INSPECTOR	OWNER/ DEVELOPER
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS Inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. The permittee must maintain a "record set" of approved SC/SM plans on-site at all times. **Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead.** Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer	INITIALS/DATE	INITIALS/DATE
1. Placement of backfill of underdrains and installation of diaphragms, forebays, check dams, or weirs conforms to approved plans		
2. Final grading and establishment of permanent stabilization conforms to approved plans		

ESD PLANTER BOX (PB) DESIGN SUMMARY

ESD NO.	POI	DRAINAGE AREA (AC)	IMPERV. AREA(AC)	SOIL TYPE	PE REQUIRED (R.O.W)*	PE TREATED**	ESDv PROVIDED (CF)
PB 1-1	POI-1	1.28	0.54	B	1.8	0.6	1274

*THE REQUIRED PE IS CALCULATED WITHIN THE R.O.W.
**PARTIAL TREATMENT IS PROVIDED FOR THE PP

NOTE
SEE THE DETAIL PLAN SHEETS FOR THE PLANTER BOX (PB) DIMENTIONS AND TYPICAL SECTIONS

LEGEND

BMP-PERVIOUS CONCRETE SIDEWALK

BMP-BIOSWALE

BMP-PLANTER BOX

0 20 40
SCALE: 1" = 20'

SHELADIA Engineers, Architects Development Consultants
18825 Shady Grove Road, Rockville, MD, 20850
Phone: 301-525-1935 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
Designed by: ____ Drawn by: ____ Checked by: ____

SEE TITLE SHEET FOR SIGNATURES

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date
WATER

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TECHNICIAN
MCDOT APPROVAL OF THIS PLAN IS ALLOWING ONE YEAR FROM THE DATE OF THE MCDOT APPROVAL AND NOT SUPERSEDE ANY PLAN THAT MAY BE ISSUED LATER.

FRANKLIN AVENUE SIDEWALK
PLANTER BOX
PB 1-1

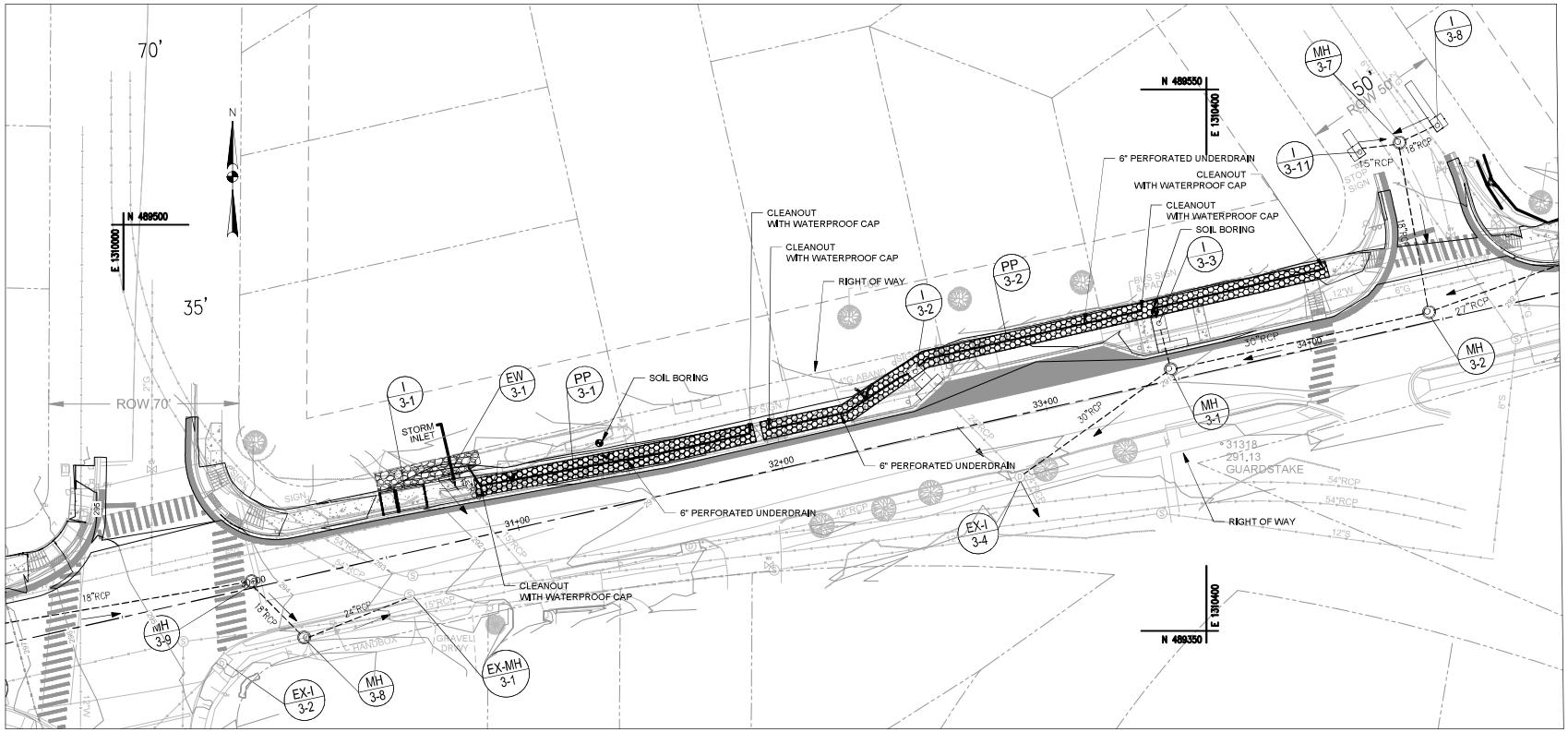
SCALE : AS SHOWN

SWM-01

Project No.: TBD — 56 of 109

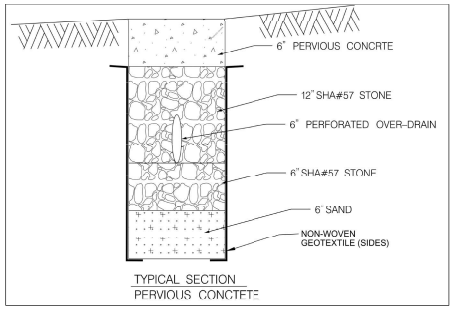
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pSW-Sheet.dwg
DATE: Mar 15, 2023 - 10:54am

SHEET NO.	TOTAL SHEETS
57	109



CONSTRUCTION INSPECTION CHECK-OFF LIST FOR PERMEABLE PAVEMENTS

STAGE	MCDPS INSPECTOR	OWNER/ DEVELOPER
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at those points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. **Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead.** Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.	INITIALS/DATE	INITIALS/DATE
1. Excavation to subgrade conforms to approved plans		
2. Placement and backfill of any drainage or distribution systems conforms to approved plans		
3. Placement or crushed stone subbase conforms to approved plans		
4. Placement of surface material conforms to approved plans		
5. Final grading and permanent stabilization conforms to approved plans		



TYPICAL SECTION
PERVIOUS CONCTETE

ESD PERVIOUS CONCRETE(PP) DESIGN SUMMARY

ESD NO.	POI	DRAINAGE AREA (AC)	IMPERV. AREA(AC)	SOIL TYPE	PE REQUIRED (R.O.W)*	PE TREATED**	ESDv PROVIDED (CF)
PP 3-1	POI-3	0.028	0.017	B/C	1.8	2.6	126
PP 3-2	POI-3	0.054	0.031	B/C	2.0	2.6	338

*THE REQUIRED PE IS CALCULATED WITHIN THE R.O.W.

NOTE
SEE THE DETAIL PLAN SHEETS FOR THE PLANTER BOX (PB) DIMENTIONS AND TYPICAL SECTIONS

LEGEND

BMP-PERVIOUS CONCRETE SIDEWALK

BMP-BIOSWALE

BMP-PLANTER BOX

0 20 40
SCALE: 1" = 20'

SHELADIA Engineers, Architects Development Consultants
18825 Sandy Grove Road, Rockville, MD, 20850
Phone: 301-525-3939 Fax: 301-445-7174
www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date

SEDIMENT CONTROL TECHNICIAN

NO DIRECT APPROVAL OF THIS PLAN IS ACCURED ONE YEAR FROM THE DATE OF THE FIRST REVIEW IF A PERMIT IS NOT ISSUED (SUBJECT TO PERMIT EXTENSIONS CHECKED)

FRANKLIN AVENUE SIDEWALK

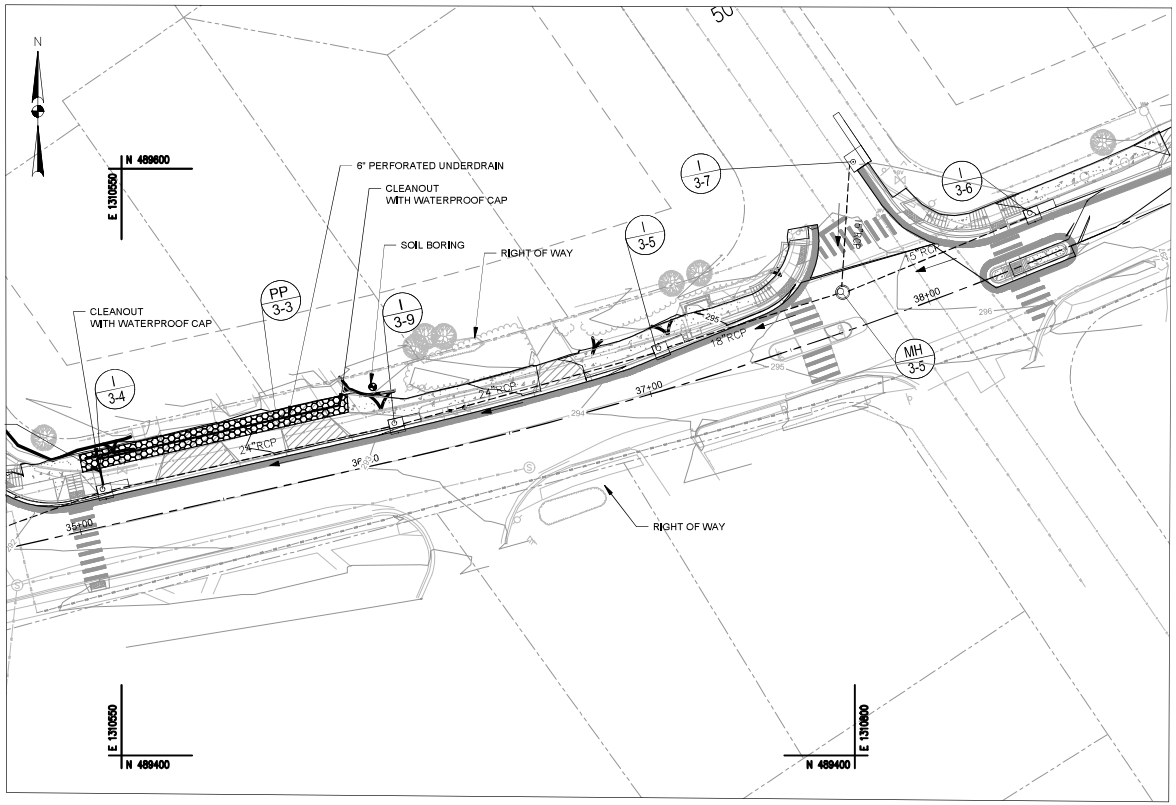
PERVIOUS CONCRETE
PP 3-1 & PP 3-2

SCALE : AS SHOWN

SWM-02

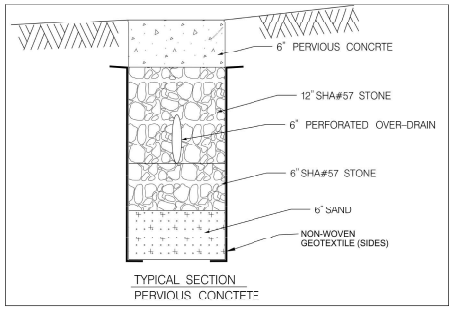
Project No.: TBD 57 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pSW-Sheet.dwg
DATE: Mar 15, 2023 - 10:55am



CONSTRUCTION INSPECTION CHECK-OFF LIST FOR PERMEABLE PAVEMENTS

STAGE	MCDPS INSPECTOR	OWNER/ DEVELOPER
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. **Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead.** Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.	INITIALS/DATE	INITIALS/DATE
1. Excavation to subgrade conforms to approved plans		
2. Placement and backfill of any drainage or distribution systems conforms to approved plans		
3. Placement of crushed stone subbase conforms to approved plans		
4. Placement of surface material conforms to approved plans		
5. Final grading and permanent stabilization conforms to approved plans		



TYPICAL SECTION
PERVIOUS CONCRETE

ESD PERVIOUS CONCRETE(PP) DESIGN SUMMARY

ESD NO.	POI	DRAINAGE AREA (AC)	IMPERV. AREA(AC)	SOIL TYPE	PE REQUIRED (R.O.W)*	PE TREATED**	ESDv PROVIDED (CF)
PP 3-3	POI-3	0.035	0.013	B	1.8	2.6	120

*THE REQUIRED PE IS CALCULATED WITHIN THE R.O.W.

NOTE
SEE THE DETAIL PLAN SHEETS FOR THE PLANTER BOX (PB) DIMENTIONS AND TYPICAL SECTIONS

LEGEND

BMP-PERVIOUS CONCRETE SIDEWALK

BMP-BIOSWALE

BMP-PLANTER BOX

0 20 40
SCALE: 1" = 20'

SHELADIA Engineers, Architects Development Consultants
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NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date

Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date

SEDIMENT CONTROL TEMPLATE

NO SITE WORK MAY BE PERFORMED UNTIL A VALID ESCP PLAN HAS BEEN ISSUED BY THE MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION. PLEASE CONTACT (240) 777-7770 FOR FURTHER INFORMATION.

FRANKLIN AVENUE SIDEWALK

PERVIOUS CONCRETE PP 3-3

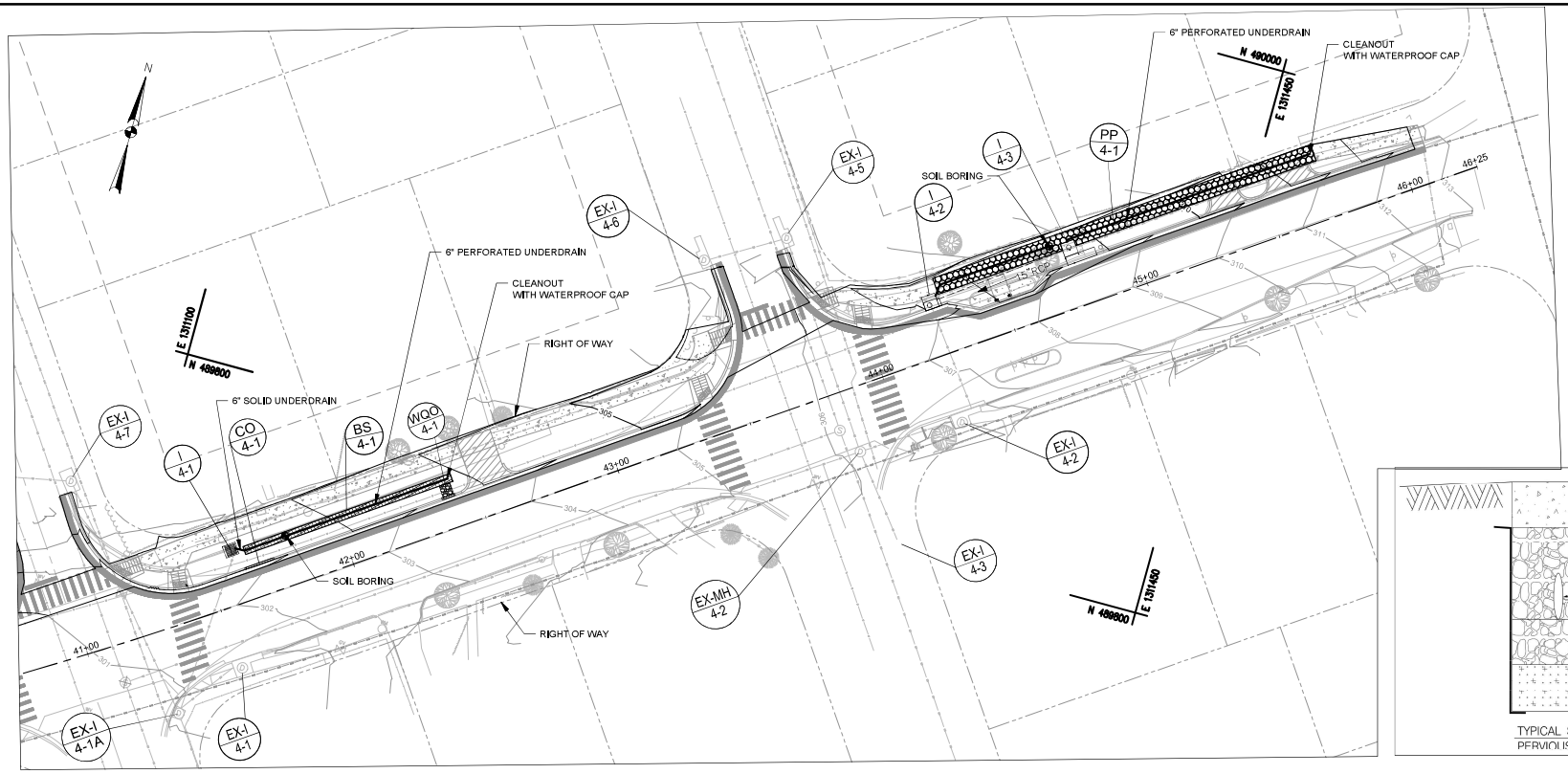
SCALE : AS SHOWN

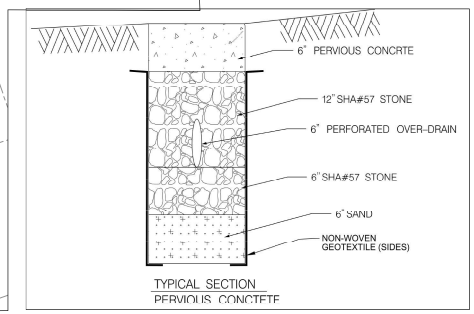
SWM-03

Project No.: TBD — 58 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pSW-Sheet.dwg
DATE: Mar 15, 2023 - 10:56am

SHEET NO.	TOTAL SHEETS
59	109





CONSTRUCTION INSPECTION CHECK-OFF LIST FOR PERMEABLE PAVEMENTS

STAGE	MCDPS INSPECTOR	OWNER/ DEVELOPER
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2. Placement and backfill of any drainage or distribution systems conforms to approved plans		
3. Placement of crushed stone subbase conforms to approved plans		
4. Placement of surface material conforms to approved plans		
5. Final grading and permanent stabilization conforms to approved plans		

CONSTRUCTION INSPECTION CHECK-OFF LIST FOR SWALES

STAGE	MCDPS INSPECTOR	OWNER/ DEVELOPER
MANDATORY NOTIFICATION: Inspection and approval of each practice is required at these points prior to proceeding with construction. The permittee is required to give the MCDPS Inspector twenty-four (24) hours notice (DPS telephone 240-777-0311). The DPS inspector may waive an inspection, and allow the owner/developer to make the required inspection per a prior scheduled arrangement which has been confirmed with the DPS inspector in writing. Work completed without MCDPS approval may result in the permittee having to remove and reconstruct the unapproved work. The permittee must maintain a "record set" of approved SC/SM plans on-site at all times. **Upon completion of the project, a formal Stormwater Management As-Built must be submitted to MCDPS unless a Record Drawing Certification has been allowed instead.** Each of the steps listed below must be verified by either the MCDPS Inspector OR the Owner/Developer.	INITIALS/DATE	INITIALS/DATE
1. Placement of backfill of underdrains and installation of diaphragms, forebays, check dams, or weirs conforms to approved plans		
2. Final grading and establishment of permanent stabilization conforms to approved plans		

ESD BIOSWALE (BS) AND PERVIOUS CONCRETE (PP) DESIGN SUMMARY

ESD NO.	POI	DRAINAGE AREA (AC)	IMPERV. AREA(AC)	SOIL TYPE	PE REQUIRED (R.O.W)*	PE TREATED**	ESDv PROVIDED (CF)
BS 4-1	POI-4	0.37	0.18	B	1.8	0.17	112
PP 4-1	POI-4	0.034	0.026	B	2.2	2.6	239

*THE REQUIRED PE IS CALCULATED WITHIN THE R.O.W.

NOTE
SEE THE DETAIL PLAN SHEETS FOR THE PLANTER BOX (PB) DIMENTIONS AND TYPICAL SECTIONS

LEGEND

BMP-PERVIOUS CONCRETE SIDEWALK

BMP-BIOSWALE

BMP-PLANTER BOX

0 20 40
SCALE: 1" = 20'

SHELADIA Engineers, Architects Development Consultants
18825 Shady Grove Road, Rockville, MD, 20850
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www.sheladia.com

NO.	REVISION	DATE	BY

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements: Reviewed — Date

SEDIMENT CONTROL TEMPLATE

MCDPS APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE SHOWN ON THE ABOVE SEDIMENT CONTROL TEMPLATE. ONLY THE PLAN THAT BEARS A CURRENT DATE IS VALID.

FRANKLIN AVENUE SIDEWALK

PERVIOUS CONCRETE & BIOSWALE PP 4-1 & BS 4-1

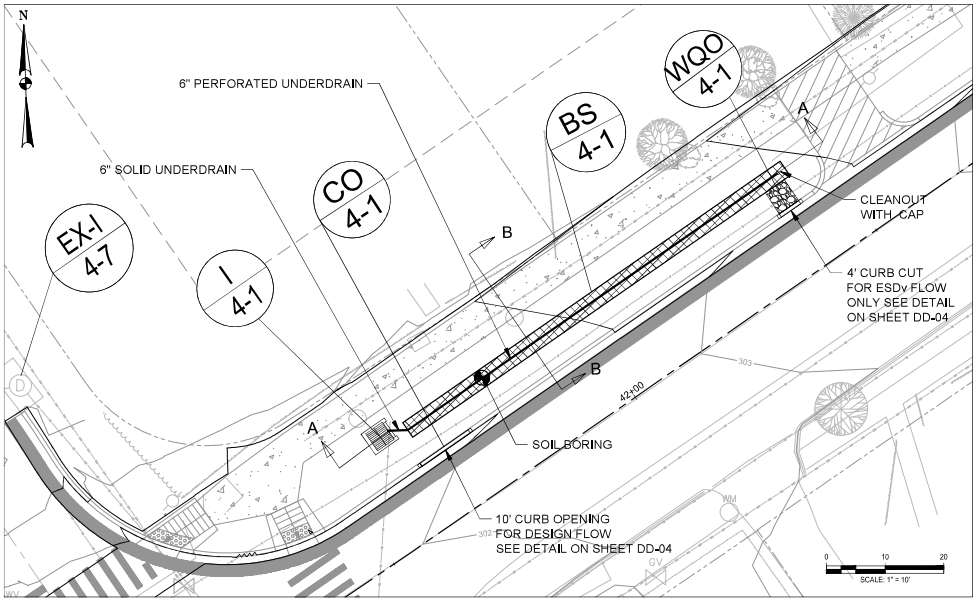
SCALE : AS SHOWN

SWM-04

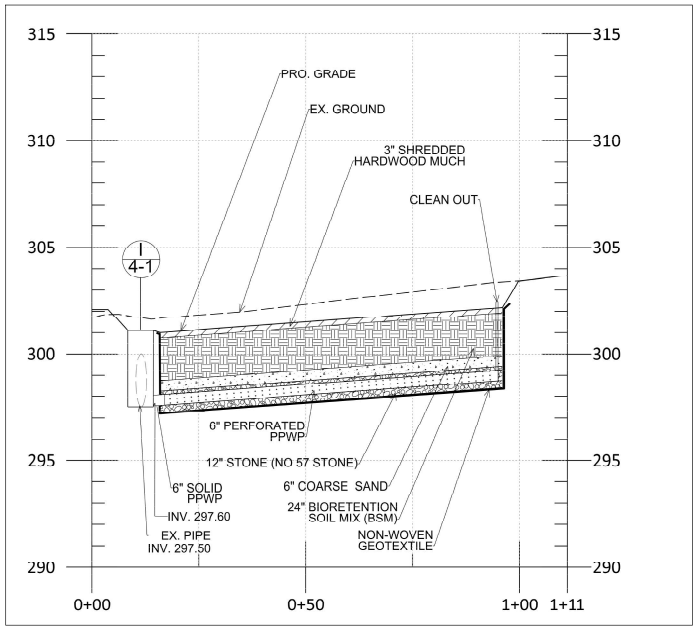
Project No.: TBD 59 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pSW-Sheet.dwg
DATE: Mar 15, 2023 - 10:56am

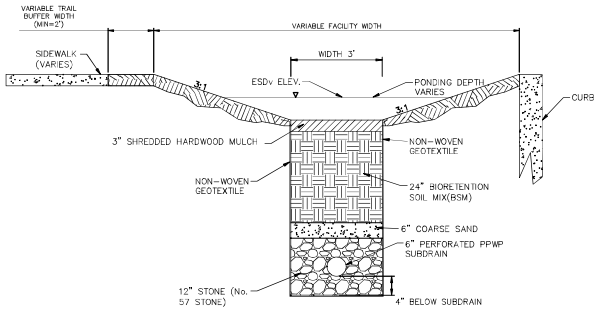
SHEET NO.	TOTAL SHEETS
60	109



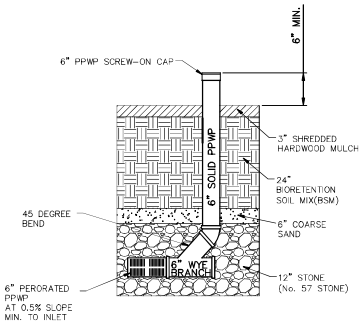
BIO-SWALE PLAN VIEW
BS 4-1



BIO-SWALE SECTION A-A



BIO-SWALE TYPICAL CROSS SECTION B-B
SCALE: NTS



BIO-SWALE CLEANOUT DETAIL
SCALE: NTS

AS-BUILT DATA FOR BIO-SWALE(BS)

	BS 4-1
TOTAL SWALE LENGTH (FT)	80
SWALE BOTTOM WIDTHS (FT)	3
SWALE SIDE SLOPE	3:1
SWALE LONGITUDINAL SLOPE (%)	1.7%
BIORETENTION SOIL MIX (IN)	24
COARSE SAND (IN)	6
NO 57 STONE (IN)	12
POROSITY OF MEDIA	0.4
TOTAL ESDv PROVIDED (CF)	112

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NO.	REVISION	DATE	BY

OWNER/ADDRESS:
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GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date
SEE TITLE SHEET FOR SIGNATURES
Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:
Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date
SEDIMENT CONTROL PERMIT NO.
NO EXCEPT APPROVAL OF THE PLANS & SPECIFICATIONS CONTAINED HEREIN. THE SUITE OF PLANS & SPECIFICATIONS MUST BE APPROVED PRIOR TO THE ISSUANCE OF PERMITS.

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK
BIOSWALE BS 4-1
CROSS SECTION & DETAILS

SCALE : AS SHOWN
SWM-05
Project No.: TBD
60 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pSW-Bioswale.dwg
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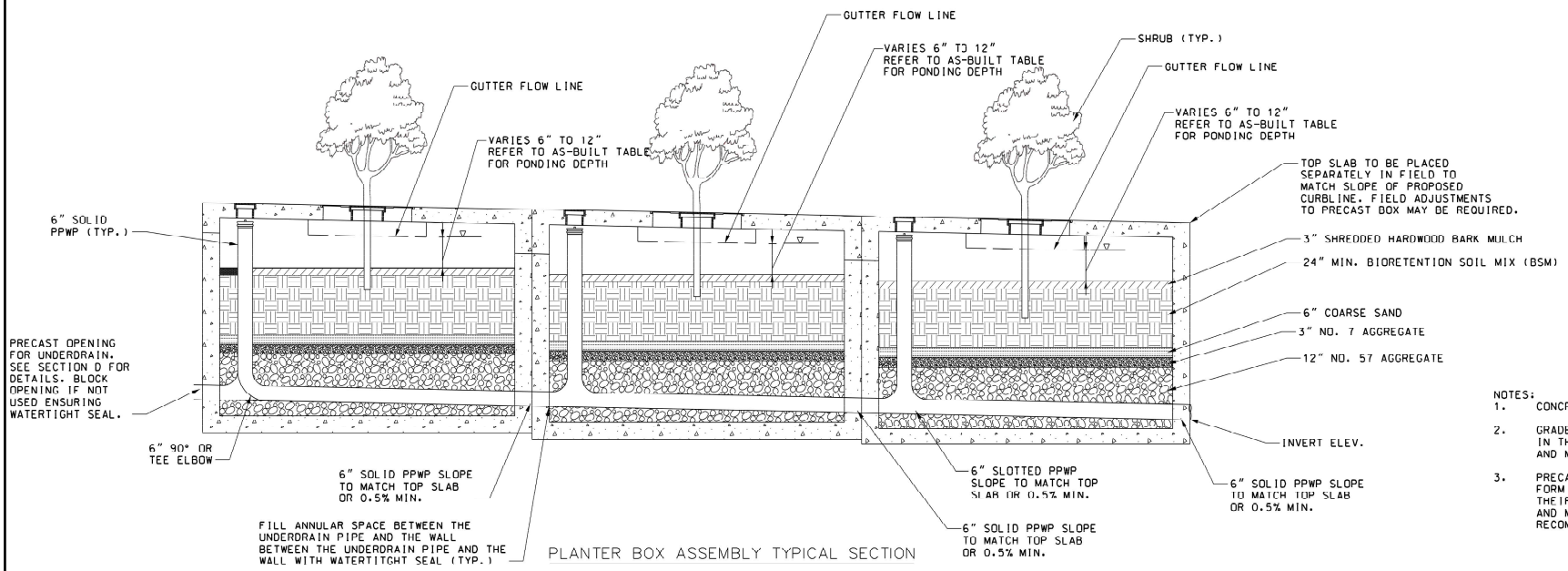

PLANTER BOX ASSEMBLY TYPICAL SECTION

NOTES:

1. CONCRETE SHALL BE MIX NO.6 (4500 PSI).
2. GRADE AND SLOPE ADJUSTMENTS SHALL BE COMPLETED IN THE FIELD USING PRECAST ADJUSTMENT COLLAR AND MORTAR.
3. PRECAST INLET JOINTS - THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED AND MADE WATERTIGHT USING THE MANUFACTURER'S RECOMMENDED ASTM OR AASHTO APPROVED SEALANT.

AS-BUILT DATA FOR PLANTER BOX (PB)

	PB 1-1
FILTER BED AREA (SF)	560
SURFACE VOLUME (CF)	560
OUTLET PIPE/UNDERDRAIN SIZE (INCH)	6
POND DEPTH (INCH)	12
MULCH THICKNESS (INCH)	3
BIORETENTION SOIL MIX THICKNESS (INCH)	24
COARSE SAND THICKNESS (INCH)	6
NO. 7 PEA GRAVEL THICKNESS (INCH)	3
NO.57 GRAVEL THICKNESS (INCH)	12
NUMBER OF CELL (EACH)	8
CLEANOUT (EACH)	8
TREES (EACH)	8
CELL SIZE (LXW)	10' LX7' W
TROUGH OPENING SIZE	4' WX3"H
UPSTREAM TROUGH INVERT ELEV.	N/A
STA.	5+75, 11.3' LT

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management: Reviewed — Date; Approved — Date
Sediment Control Technical Requirements: Reviewed — Date; Approved — Date
Administrative Requirements: Reviewed — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

FRANKLIN AVENUE SIDEWALK

PLANTER BOX DESIGN AND DETAILS

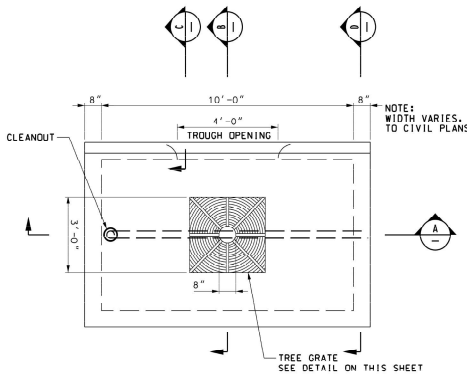
SCALE : AS SHOWN

SWM-06

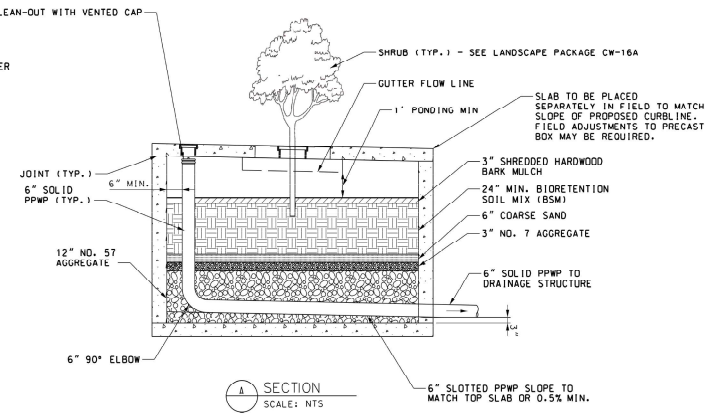
Project No.: TBD 61 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pSW-Details.dwg
DATE: Mar 13, 2023 - 12:36pm

SHEET NO.	TOTAL SHEETS
62	109

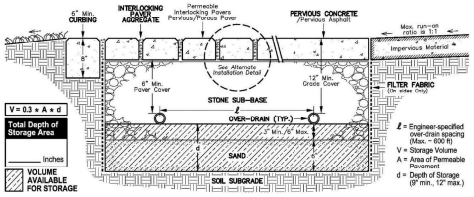


PLAN VIEW
TYPE A WITH NO OUTLET CHAMBER



A SECTION
SCALE: NTS

PERMEABLE PAVEMENT:



GENERAL REQUIREMENTS:

Within three (3) days of installation, contractor must perform single ring infiltration tests. Poured-in-place concrete must remain free from all light vehicular traffic for a minimum of seven (7) days. Heavy vehicular traffic must be restricted for at least ten (10) days after placement.

Post construction of infiltration rates required for all surfaces must conform to ASTM C1701 for poured-in-place permeable concrete, or ASTM C1781 for permeable pavers.

SETBACKS:

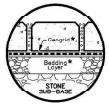
Pervious Pavements require MC DOT prior written approval before being designed within public rights of way.

The storage volume for any pervious surface shall be located down gradient of building structures and be setback a minimum of:

- 100 feet from primary potable water supply or open loop geothermal wells (10' for SF Residential)
- 50 feet from alternate potable water supply or closed loop geothermal wells (No setback for S.F. Residential)
- 25 feet from septic systems (10' for S.F. Residential)
- 10 feet from any other Infiltrating ESD Practice
- 10 feet from buildings
- Raised mulch/planting beds shall not be placed adjacent to Permeable Pavement

ALTERNATE INSTALLATION DETAIL:

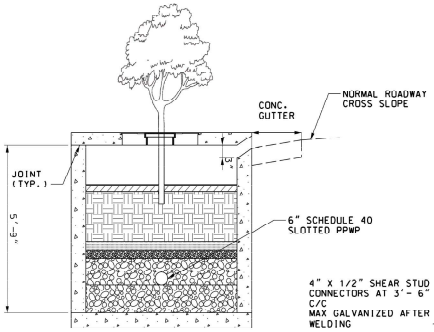
Optional engineer-approved installation as per manufacturers recommendations. *



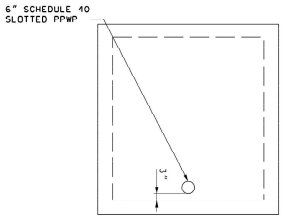
LEGEND:

CURBING	6" minimum width. Curbing is not required for sidewalk applications.
INTERLOCKING PAVER AGGREGATE	Paver gap aggregate shall be a silica-based stone per manufacturer's recommendations or meeting ASTM D448 size criteria of No. 8, 89, or 9 stone.
FILTER FABRIC	Engineer-approved, permeable, non-woven geotextile fabric. On sides only.
OVER-DRAIN	4" Schedule 40 PVC or HDPE N-12 installed perpendicular to grade. One foot of over-drain is required for every 600 sq. ft. Over-drain may not connect to drywells or any other SWM. Over-drain discharge point must be shown on the plan view.
OVER-DRAIN PERFORATION	• 3/8 Inch Holes • 4 inches on center • 90° around pipe
STONE SUB-BASE	Clean open graded, washed silica stone meeting MD SHA Course Aggregate 57 grading requirements. Filter cloth shall not be used horizontally between the sub-base material and the soil sub-grade.
SAND	See Montgomery County Sand Specifications.
SOIL SUBGRADE	Site geotechnical engineer-approved subgrade shall be proof rolled and scarified. Bottom shall be flat or per Stepped/Sloped Permeable Pavement Detail.
PERVIOUS CONCRETE	Pervious concrete construction must be performed by National Ready Mixed Association Certified Pervious Concrete Installer. All construction must be done per ACI 522.1R.

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES WATER RESOURCES DIVISION	PERMEABLE PAVEMENT DETAIL	DATE: MAY 1, 2017 SCALE: NONE



B SECTION
SCALE: NTS
REF: S5020PDRW102



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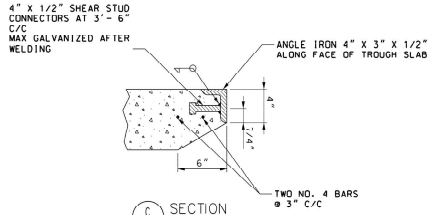

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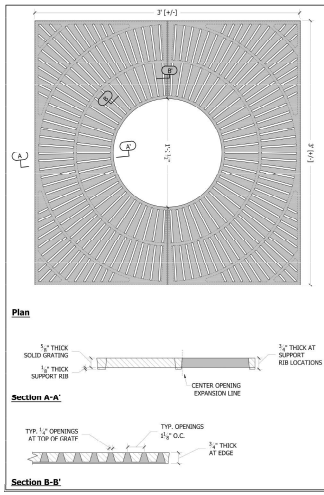

SPECIFICATIONS
- Material will be high quality (100% recycled grey iron; ASTM A48 class 35b or better; hardness 170-223 brinnell (unless specified otherwise; see below).
  Material:
  - Grey iron ASTM A48 (standard)
  - Aluminum, ASTM B26
  - Ductile iron, (required for all load ratings higher than pedestrian) ASTM A536 class 65-45-12.
  - Nickel bronze (ASTM B30)
  - Bronze (ASTM B26)
- Finish will be natural patina of raw iron (unless specified otherwise; see below).
  Finish:
  - Raw (standard)
  - Rust conditioner
  - Polyester Powder Coat*
  - Liquid Coat (wet paint)*
  Color:
  *Please specify standard RAL color or mfr. name and color code.
  - Brush (bronze/nickel/aluminum only)
  - Polish (bronze/nickel/aluminum only)
  - Galvanized (grey iron and ductile iron only)
  - Other:
- **Dimensions are nominal.**

Notes
1) Cast in two pieces.
2) Grate is 3/4" thick at edge.
3) Center opening expansion at 2' diameter.
4) No openings greater than 1/2", in conformance with ADA Accessibility Guidelines.
5) Grate weights 129 lbs.

Comments:

Tree Grate
3' Sq. Kiva

Page 1 of 1 Date: 5/22/12

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NO.	REVISION	DATE	BY

Engineers, Architects Development Consultants
SHELADIA ASSOCIATES, INC.
18025 Sandy Grove Road, Rockville, MD, 20850
Phone: 301-926-3939 Fax: 301-948-7174
www.sheladia.com

OWNER/ADDRESS:
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed — Date
Approved — Date

Sediment Control Technical Requirements:
Reviewed — Date
Approved — Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed — Date
SEDIMENT CONTROL TEMPLATE
NO DEBT APPROVAL OF THIS PLAN IS VALID FOR ONE YEAR FROM THE DATE SIGNED BY THE MCDPS DIRECTOR IF CONSTRUCTION HAS NOT BEEN STARTED OR PERMITS HAVE NOT BEEN ISSUED

FRANKLIN AVENUE SIDEWALK

SCALE : AS SHOWN

SWM-07

Project No.: TBD 62 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-28-22_Jerry_CADD\dwg Files\dwg Files\pSW-Details.dwg
DATE: Mar 13, 2023 - 12:43pm

SHEET NO.	TOTAL SHEETS
63	109

MONTGOMERY COUNTY STORMWATER MANAGEMENT FACILITY GUIDELINES

IN ORDER TO FUNCTION PROPERLY, ALL STORMWATER MANAGEMENT FACILITIES REQUIRE MAINTENANCE. MAINTENANCE REQUIREMENTS AND FREQUENCIES MAY VARY FROM SITE TO SITE AND BETWEEN TYPES OF FACILITIES. THE FOLLOWING INFORMATION IS DESIGNED TO PROVIDE GENERAL INFORMATION ABOUT FACILITY TYPES AND MAINTENANCE REQUIREMENTS. FOR SPECIFIC GUIDANCE ON STORMWATER MANAGEMENT FACILITY MAINTENANCE, CONTACT:

THE MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION (MCDEP) AT 240-777-7770.

NOTE: SPECIAL EQUIPMENT MAY BE REQUIRED FOR ANY PERSON ENTERING AN ENCLOSED SPACE. CONTACT MCDEP FOR GUIDANCE
PRIOR TO ATTEMPTING TO ENTER INTO ANY ENCLOSED SPACE.

FACILITIES APPLICABLE TO THIS AS-BUILT RECORD DRAWING ARE MARKED WITH AN "X" BELOW:

A. DRY DETENTION POND

A DRY DETENTION POND SERVES TO PROTECT DOWNSTREAM PROPERTIES AND RECEIVING STREAMS FROM EXCESSIVE EROSION AND FLOODING. IT DOES THIS BY TEMPORARILY STORING WATER DURING A LARGE STORM EVENT, AND RELEASING IT AT A CONTROLLED RATE THROUGH A LOW FLOW ORIFICE. ROUTINE MAINTENANCE FOR DRY PONDS INCLUDES REGULAR MOWING OF THE POND AND EMBANKMENT, AND CHECKING TO ENSURE THAT THE LOW FLOW ORIFICE AND TRASH GRATE DOES NOT BECOME CLOGGED WITH DEBRIS. THIS POND IS NOT DESIGNED TO HOLD A PERMANENT POOL OF WATER. STANDING WATER MAY INDICATE THAT THE LOW FLOW ORIFICE HAS BECOME CLOGGED AND IS IN NEED OF MAINTENANCE.

B. WET RETENTION POND

A WET RETENTION POND SERVES TO PROTECT DOWNSTREAM PROPERTIES AND RECEIVING STREAMS FROM EXCESSIVE EROSION AND FLOODING. IT DOES THIS BY TEMPORARILY STORING WATER DURING A LARGE STORM EVENT, AND RELEASING IT AT A CONTROLLED RATE THROUGH A LOW FLOW ORIFICE. IN ADDITION, THE POND PROVIDES A MEASURE OF WATER QUALITY BY RETAINING A PERMANENT POOL OF WATER. ROUTINE MAINTENANCE FOR THESE PONDS INCLUDES REGULAR MOWING OF THE POND SLOPES AND EMBANKMENT, AND CHECKING TO ENSURE THAT THE LOW FLOW ORIFICE DOES NOT BECOME CLOGGED WITH DEBRIS. A METAL HOOD OR ELBOW THAT EXTENDS BELOW THE PERMANENT WATER SURFACE ELEVATION TYPICALLY PROTECTS THE LOW FLOW ORIFICE ON THESE PONDS. IF THIS HOOD OR ELBOW IS COMPLETELY SUBMERGED BELOW THE SURFACE OF THE POND, THE ORIFICE IS LIKELY CLOGGED AND IN NEED OF MAINTENANCE.

C. UNDERGROUND STORAGE

THIS STRUCTURE CONSISTS OF UNDERGROUND STORAGE PIPES DESIGNED TO TEMPORARILY DETAIN STORMWATER RUNOFF AND RELEASE IT AT A CONTROLLED RATE THROUGH A LOW FLOW ORIFICE. ROUTINE MAINTENANCE CONSISTS OF INSPECTING THE ORIFICE TO ENSURE THAT IT DOES NOT BECOME CLOGGED WITH DEBRIS. NOTE: SPECIAL EQUIPMENT MAY BE REQUIRED FOR ANY PERSON ENTERING AN ENCLOSED SPACE. CONTACT MCDEP FOR GUIDANCE PRIOR TO ATTEMPTING TO ENTER INTO ANY ENCLOSED SPACE.

D. MONTGOMERY COUNTY SAND FILTER

THE PURPOSE OF THE SAND FILTER IS TO INTERCEPT AND TREAT STORMWATER RUNOFF TO IMPROVE THE QUALITY OF WATER LEAVING THE DEVELOPMENT. WATER FLOWS ONTO THE FILTER AND SLOWLY SEEPS THROUGH IT, WHERE IT IS COLLECTED BY AN UNDERDRAIN PIPE AND DIRECTED TO AN OUTFALL. THIS MOVEMENT OF THE WATER THROUGH THE SAND MEDIA FILTERS OUT MANY OF THE POLLUTANTS. THE SAND FILTER SHOULD USUALLY DRY UP WITHIN 48 HOURS. IF WATER STANDS ON THE FILTER FOR LONGER PERIODS OF TIME, MAINTENANCE IS REQUIRED.
BECAUSE THE SAND ACTS AS A FILTER, IT WILL EVENTUALLY CLOG. CLOGGING GENERALLY EFFECTS THE TOPMOST PORTION OF THE SAND, LEAVING UNDERLYING SAND UNCLOGGED. TO INCREASE THE LIFE OF THE FILTER, THE TOP LAYER SHOULD BE RAKED ON A REGULAR BASIS IN ORDER TO BREAK UP ANY SURFACE CLOGGING THAT MAY OCCUR. EVENTUALLY THE TOP 3" - 4" OF SAND WILL LIKELY REQUIRE REMOVAL AND REPLACEMENT WITH NEW, CLEAN MATERIAL. IF THE SAND FILTER IS PROVIDED WITH A GRAVEL TOP LAYER, ROUTINE RAKING WILL NOT BE POSSIBLE.

E. INFILTRATION TRENCH

AN INFILTRATION TRENCH IS AN UNDERGROUND STONE RESERVOIR WHICH COLLECTS STORM RUNOFF AND ALLOWS IT TO SLOWLY SEEP BACK INTO THE GROUND. ON TOP OF THE TRENCH IS A LAYER OF GRAVEL, UNDER WHICH IS A LAYER OF FILTER FABRIC. THE INFILTRATION TRENCH SHOULD APPEAR DRY WITHIN 12-24 HOURS AFTER A STORM EVENT. IF STANDING WATER IS OBSERVED ON THE FACILITY, IT MAY INDICATE THAT THE FILTER FABRIC IS IN NEED OF REMOVAL AND REPLACEMENT. THE PURPOSE OF THE FILTER FABRIC IS TO TRAP SMALL PARTICLES THAT MIGHT OTHERWISE ENTER THE FACILITY AND CAUSE THE BOTTOM OF THE TRENCH TO FAIL.

F. BIO FILTER

THE PURPOSE OF BIO FILTRATION IS TO INTERCEPT AND TREAT STORMWATER TO IMPROVE WATER LEAVING THE DEVELOPMENT. WATER FLOWS INTO THE FACILITY AND SLOWLY SEEPS THROUGH IT, WHERE IT IS COLLECTED BY AN UNDERDRAIN PIPE AND DIRECTED TO AN OUTFALL. THIS MOVEMENT OF THE WATER THROUGH THE MEDIA FILTERS OUT MANY OF THE POLLUTANTS. THE BIO FILTRATION AREA SHOULD USUALLY DRY UP WITHIN 48 HOURS. IF WATER STANDS ON THE FILTER FOR LONGER PERIODS OF TIME, MAINTENANCE IS REQUIRED. MAINTENANCE OF THIS TYPE OF FACILITY GENERALLY INCLUDES REPLACEMENT OF DEAD OR DISEASED PLANT MATERIAL AND REPLENISHMENT OF THE MULCH LAYER AS REQUIRED. IN ADDITION, IT MAY BE NECESSARY TO RAKE THE SURFACE OF THE SAND "WINDOW" TO ENCOURAGE PROPER DRAINAGE. THE BIO FILTER IS INTENDED TO BE AN ACTIVELY MAINTAINED LANDSCAPE AREA.

G. FLOW SPLITTER

MANY OF THE STORMWATER MANAGEMENT FACILITIES IN MONTGOMERY COUNTY RECEIVE DRAINAGE VIA A DEVICE WHICH IS DESIGNED TO DIVERT ONLY THE FIRST AND DIRTIEST FLUSH OF STORMWATER RUNOFF TO THE WATER QUALITY TREATMENT FACILITY. THIS INCREASES THE EFFICIENCY OF POLLUTANT REMOVAL. LARGER FLOWS ARE DIVERTED AROUND THE FACILITY TO PRESERVE EFFICIENCY. FLOW SPLITTER PIPES AND TRASH GRATES SHOULD BE CHECKED PERIODICALLY TO ENSURE THAT THEY ARE NOT CLOGGED WITH DEBRIS.
NOTE: SPECIAL EQUIPMENT MAY BE REQUIRED FOR ANY PERSON ENTERING AN ENCLOSED SPACE. CONTACT MCDEP FOR GUIDANCE PRIOR TO ATTEMPTING TO ENTER INTO ANY ENCLOSED SPACE.

H. STORMFILTER

THE STORMFILTER IS A PROPRIETARY DEVICE IN WHICH WATER FLOWS THROUGH A FILTER MEDIA TO REMOVE POLLUTANTS. THE FILTER MEDIA WILL REQUIRE PERIODIC REPLACEMENT, PER THE MANUFACTURER'S RECOMMENDATIONS. IN ADDITION TO FILTER MEDIA REPLACEMENT, THE STRUCTURE SHOULD BE CHECKED PERIODICALLY TO ENSURE THAT IT IS NOT CLOGGED WITH DEBRIS.

I. STORMCEPTOR, BAY SAVER, VORTECHNICS, OR OTHER HYDRODYNAMIC STRUCTURE

THESE PROPRIETARY STRUCTURES ARE ESSENTIALLY MANHOLES THAT SERVE TO SEPARATE SEDIMENTS FROM FLOATABLE POLLUTANTS, SUCH AS OIL. THE OILS AND SEDIMENTS ARE TRAPPED WITHIN THE FACILITY. THESE STRUCTURES SHOULD BE INSPECTED PERIODICALLY TO ENSURE THAT THE PIPES ARE NOT CLOGGED BY DEBRIS. IN ADDITION, THE POLLUTANT BUILD-UP WITHIN THE FACILITY MUST BE MONITORED REGULARLY AND THE TRAPPED MATERIALS REMOVED ONCE THE STORAGE CAPACITY OF THE DEVICE HAS BEEN REACHED. A LICENSED CONTRACTOR MUST REMOVE THE MATERIALS FROM THE FACILITY.

J. OTHER FACILITY - DESCRIBED BELOW:

1. THE PERMEABLE PAVEMENT

THE PERMEABLE PAVEMENT METHODS DESCRIBED IN THIS DOCUMENT ARE BASED ON THE PERMEABLE PAVING DESIGN FOUND IN CHAPTER 5 OF THE MARYLAND STORMWATER DESIGN MANUAL AND THE ENVIRONMENTAL SITE DESIGN (ESD) PROCESS & COMPUTATIONS SUPPLEMENT DATED JULY 2010. WHERE DEEMED APPROPRIATE, THE DESIGN SPECIFICATIONS HAVE BEEN MODIFIED BY THE MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES (DPS). DPS REQUIRES THAT ALL PERMEABLE PAVEMENTS SHALL INCLUDE AN OVER-DRAIN SYSTEM BUT NO UNDERDRAIN SYSTEM. THESE DESIGN STANDARDS ARE MEANT TO ESTABLISH MINIMUM STORMWATER MANAGEMENT (SWM) TREATMENT REQUIREMENTS AND ARE NOT INTENDED TO PROVIDE GUIDANCE OR REQUIREMENTS FOR ADEQUATE STRUCTURAL DESIGN. APPROPRIATE DESIGN FOR THE ANTICIPATED TRAFFIC LOAD AND USE IS THE RESPONSIBILITY OF THE DESIGN ENGINEER.
PERMEABLE PAVEMENTS ARE SUSCEPTIBLE TO CLOGGING. OWNERS ARE TO BE EDUCATED IN PROPER SYSTEM MAINTENANCE, INCLUDING PROPER TREATMENT FOR ICE AND SNOW IN THE WINTER TO ALLOW THE SYSTEM TO FUNCTION PROPERLY. USE OF SALTS ON PERMEABLE PAVEMENT WILL DECREASE THE EXPECTED LIFESPAN OF MATERIALS AND MAY NOT BE USED WITHIN THE FIRST 12 MONTHS OF PLACEMENT OF A POURED-IN PLACE PERMEABLE CONCRETE. ALL OTHER RESTRICTIONS SHOULD BE PER MANUFACTURER'S SPECIFICATIONS. APPLICATION OF COARSE SAND ON TOP OF PERMEABLE PAVEMENT WILL REQUIRE VACUUM CLEANING EACH SPRING.

2. MICRO-BIORETENTION

MICRO-BIORETENTION IS A FILTRATION SYSTEM THAT TREATS RUNOFF BY PASSING IT THROUGH A FILTER BED MIXTURE OF SAND, SOIL, AND ORGANIC MATTER. PRINCIPAL COMPONENTS OF THE SYSTEM INCLUDE: A) SURFACE PLANTING WITH WOODY AND HERBACEOUS PLANT SPECIES, B) A SURFACE 3 INCH THICK MULCH LAYER, C) A 2-4 FOOT PLANTING MEDIUM, D) A 6 INCH THICK SAND LAYER, AND E) PERFORATED PVC PIPE UNDERDRAIN WITHIN A GRAVEL BED. THE FACILITIES SHOULD BE WELL ANDSCAPED TO ENHANCE THEIR FUNCTION AND APPEARANCE. WHEN PROVIDING ADDITIONAL STORAGE FOR RECHARGE BELOW THE UNDERDRAIN, REFER TO THE ENHANCED FILTER DESIGN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

PERMEABL PAVEMENT SPECIFICATIONS AND DETAILS

1. SIZING

PERMEABLE PAVEMENTS ARE AN AT-SOURCE PRACTICE FOR REDUCING THE EFFECTS OF IMPERVIOUS COVER. THEY SHOULD BE SIZED TO CAPTURE AND STORE 100% OF THE TARGET TREATMENT VOLUME. THE TOTAL TREATMENT STORAGE PROVIDED IN A FACILITY THAT CAN BE CREDITED TOWARDS MEETING THE ESD REQUIREMENT, ESDV, SHALL BE COMPUTED AS THE STORAGE IN THE STONE SUBBASE AND SAND BRIDGING LAYER BELOW THE OVERDRAIN PIPES. COMPUTATIONS SHALL ACCOUNT FOR THE POROSITY (N = 0.30) OF THE STONE AND SAND. TO ACCOUNT FOR CONTINUAL VEHICULAR COMPACTION THAT PERMEABLE PAVEMENT RECEIVE, THE POROSITY OF PERMEABLE PAVEMENTS IS NOT 40% LIKE ALL OTHER ESD PRACTICES.
RUNOFF FROM ADJACENT PAVED AND UNPAVED AREAS ONTO PERMEABLE PAVEMENT SHOULD BE LIMITED AND WHENEVER POSSIBLE DIVERTED AWAY. HOWEVER, IN SOME CASES, THIS IS EITHER UNAVOIDABLE DUE TO SITE LAYOUT AND GRADING OR AN INTENTIONAL ELEMENT OF THE DESIGN (SUCH AS TREATING IMPERVIOUS DRIVE AISLES ADJACENT TO PERMEABLE PAVING.) WHEN THAT IS THE CASE THE AMOUNT OF DRAINAGE AREA THAT CAN BE TREATED BY THE PRACTICE IS LIMITED AS FOLLOWS: THE MAXIMUM RATIO OF ADJACENT CONTRIBUTING DRAINAGE AREA TO PERMEABLE PAVING SURFACE AREAIS 1:1, SO THE CONTRIBUTING DRAINAGE AREA CANNOT BE GREATER THAN THE PERMEABLE PAVEMENT SURFACE AREA.
RUNOFF FROM LANDSCAPED AREAS, FORESTS, AND OTHER PLANTED AREAS CONTAINS ORGANICS THAT HASTEN PAVEMENT CLOGGING AND INCREASE MAINTENANCE COSTS. RUNOFF FROM ADJACENT AREAS WITH THIS TYPE OF COVER SHOULD BE MINIMIZED AS MUCH AS POSSIBLE. WHEN DESIGNED PROPERLY THE TOTAL STORAGE VOLUME PROVIDED IN THIS PRACTICE, ESDV, CAN INCLUDE THE VOLUME IN STONE AND SAND VOIDS EXTENDED UNDER ADJACENT IMPERVIOUS AREAS. FOR INSTANCE, THE STONE AND SAND VOIDS UNDERNEATH BOTH A PERMEABLE PAVEMENT PARKING BAYS PLUS AN UPLAND ADJACENT IMPERVIOUS ASPHALT DRIVE AISLE CAN COUNT TOWARDS THE TOTAL STORAGE VOLUME PROVIDED. STORAGE IN PERMEABLE PAVEMENTS IN EXCESS OF THAT REQUIRED TO TREAT THE RUNOFF FOR THE 1-YR, 24-HOUR DESIGN STORM (2.6") SHALL NOT BE COUNTED TOWARDS THE ESDV PROVIDED. THEREFORE, AS AN ALTERNATIVE SURFACE WITH A MAXIMUM ALLOWABLE 1:1 ADDITIONAL CONTRIBUTING DRAINAGE AREA, THE MAXIMUM TREATMENT VOLUME IS OFTEN LIMITED TO THE VOLUME ACHIEVED BY THE 1-YR DESIGN STORM.

2. LOCATION

HOTSPOT RUNOFF: PERMEABLE PAVEMENTS SHOULD NOT BE USED TO TREAT HOTSPOTS THAT GENERATE HIGHER CONCENTRATIONS OF HYDROCARBONS, TRACE METALS, OR TOXICANTS THAN ARE FOUND IN TYPICAL STORMWATER RUNOFF AND MAY CONTAMINATE GROUNDWATER. SPECIFIC APPROVAL FROM THE FIRE MARSHAL'S OFFICE IS REQUIRED FOR EACH PERMEABLE PAVEMENT PLACEMENT AREA THAT IS PART OF THE PROPOSED FIRE ACCESS ROUTE. THE STORAGE VOLUME FOR ANY PERVIOUS SURFACE SHALL BE LOCATED DOWN GRADIENT OF BUILDING STRUCTURES AND BE SETBACK A MINIMUM OF 100 FEET FROM UNCONFINED WATER SUPPLY WELLS, 25 FEET FROM SEPTIC SYSTEMS, 10 FEET FROM BUILDINGS, AND 10 FEET FROM ANY OTHER INFILTRATING PRACTICE. CLEARANCE FROM SITE UTILITIES SHOULD BE PER THE REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANIES. WHEN PROPOSED ADJACENT TO SLOPES 15% OR GREATER, A GEOTECHNICAL ENGINEER'S RECOMMENDATION ADDRESSING SLOPE STABILITY IS REQUIRED TO BE INCORPORATED INTO THE DESIGN.

3. SOILS

PERMEABLE PAVEMENTS SHALL NOT BE USED IN AREAS OF COMPACTED FILL OR KARST TOPOGRAPHY. SOIL TYPING IS REQUIRED TO DETERMINE THAT PERMEABLE PAVEMENT IS AN APPLICABLE SWM PRACTICE; SEE MONTGOMERY COUNTY "SOIL TESTING GUIDELINES FOR STORMWATER MANAGEMENT PRACTICES". IN APPLICATIONS EXCEEDING 10,000 FT.2 OF TREATED AREA (AREA OF PERMEABLE PAVING PLUS ANY OTHER AREAS DRAINING TO IT), UNDERLYING SOILS SHALL HAVE A MEASURED INFILTRATION RATE (F) OF 0.52 IN/HR. OR GREATER.

4. TOPOGRAPHY

RUNOFF SHALL SHEETFLOW ACROSS PERMEABLE PAVEMENTS AND THE SURFACE MUST SLOPE GRADUALLY (<5%).

5. INSTALLATION

FINAL GRADING FOR INSTALLATION SHALL NOT TAKE PLACE UNTIL THE SURROUNDING SITE IS STABILIZED. IF THIS CANNOT BE ACCOMPLISHED, RUNOFF FROM DISTURBED AREAS SHALL BE DIVERTED AROUND PROPOSED PERMEABLE PAVEMENT LOCATIONS. SOIL SUBGRADES SHALL NOT BE COMPACTED. CONSTRUCTION SHOULD BE PERFORMED WITH LIGHTWEIGHT, WIDE TRACKED EQUIPMENT TO MINIMIZE COMPACTION

6. EDGE TREATMENTS

A PERMEABLE NON-WOVEN GEOTEXTILE FILTER FABRIC SHALL LINE THE EXCAVATED SIDES TO PREVENT
SOIL MIGRATION. PERMEABLE CONCRETE MUST INCLUDE A 6"RIBBON CURB SURROUNDING ALL EDGES SET AT LEAST AS DEEP AS THE PERMEABLE PAVEMENT LAYER. WHERE SURROUNDED BY CURBING, FULL GUTTER PANS MUST BE INCLUDED. PERMEABLE PAVERS MUST INCLUDE A FULL GUTTER PAN WHEN SURROUNDED BY CURBING. RIBBON CURBS AROUND OTHER EDGES ARE OPTIONAL BUT ENCOURAGED. RIBBON CURBS ARE NOT REQUIRED FOR PERMEABLE SIDEWALKS.

7. OVER-DRAIN SYSTEMS

ALL PERMEABLE PAVEMENTS SHALL BE DESIGNED WITH SUFFICIENT SUBSURFACE DEPTH TO ENSURE THAT THE TOTAL TREATMENT VOLUME DOES NOT RISE INTO THE PAVEMENT WHERE THE FREEZE/THAW CYCLE COULD DAMAGE THE PAVEMENT. AN OVER-DRAIN SYSTEM SHALL BE INCORPORATED INTO THE DESIGN TO SAFELY CONVEY THE RUNOFF IN EXCESS OF THE TREATMENT VOLUME TO A STABLE OUTFALL. OVER-DRAIN PIPES SHOULD HAVE A MINIMUM OF 12"OF TOTAL COVER TO THE PAVING SURFACE. A 6" LAYER OF STONE MUST BE PLACED BETWEEN THE BOTTOM OF PAVERS AND THE TOP OF THE OVER-DRAIN PIPE. IN ADDITION TO THE GUIDANCE IN THIS DOCUMENT, PIPE PLACEMENT SHOULD MEET MANUFACTURER'S MINIMUM RECOMMENDATIONS. OVER-DRAIN PIPE SHALL BE 4" SCHEDULE 40 PVC OR HDPE N-12 AND PERFORATED WITH 3/8"HOLES 4 INCH ON CENTER. ALL APPLICATIONS, EXCEPT SIDEWALKS, REQUIRE AN OVER-DRAIN SYSTEM EVEN IF THE AREA AS SMALL AS A FEW PARKING SPACES. THE LOCATION AND LAYOUT OF THE OVER-DRAIN SYSTEM IS LARGELY DEPENDENT ON THE PERMEABLE PAVEMENT CONFIGURATION BUT GENERALLY ONE LINEAR FOOT OF OVER-DRAIN SHOULD COLLECT NO MORE THAN 600 SQ. FT. OF AREA. FOR SLOPED APPLICATIONS THE OVER-DRAIN SYSTEM SHOULD BE PLACED AT THE LOW END OF THE SLOPE. THE TERMINAL END OF ALL OVER-DRAIN PIPES MUST BE CAPPED. THE OVER-DRAIN PIPE MUST HAVE AT LEAST 3"OF STONE SUB-BASE UNDER THE OVER-DRAIN PIPE TO PREVENT MIGRATION OF SAND INTO THE OVER-DRAIN PIPE SYSTEM.

8. STONE SUB-BASE

A SUB-BASE LAYER OF CLEAN, OPEN GRADED, WASHED SILICA STONE MEETING MD SHA COARSE AGGREGATE 57 GRADING REQUIREMENTS SHALL BE USED BELOW THE PAVEMENT LAYER. FILTER FABRIC SHALL NEVER BE USED HORIZONTALLY BETWEEN THE SUB-BASE MATERIAL AND SOIL SUBGRADE.

9. SAND BRIDGING LAYER

A 6"LAYER OF WASHED ASTM C33 FINE AGGREGATE CONCRETE SAND (SEE MCDPS SAND SPECIFICATIONS) SHALL BE USED AS A BRIDGING LAYER BETWEEN THE TREATMENT STORAGE VOLUME AND SOIL SUBGRADE.

10. SOIL SUBGRADE

THE SOIL SUBGRADE SHALL BE PROOF ROLLED PER SITE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND SCARIFIED PRIOR TO PLACEMENT OF SUB-BASE MATERIALS. THE BOTTOM OF THE SAND LAYER SHALL BE LEVEL SO THAT RUNOFF WILL BE ABLE TO INFILTRATE EVENLY THROUGH THE ENTIRE SURFACE. IF A LEVEL SOIL SUBGRADE CANNOT BE ACHIEVED, THEN THE SUBGRADE MAY BE STEPPED (SEE STEPPED SOIL SUBGRADE DETAIL) WITH THE USE OF LATERAL FLOW BARRIERS BETWEEN EACH CELL TO CONTAIN RUNOFF AND PREVENT EROSION OF THE SOIL SUBGRADE. IN THIS CASE THE MAXIMUM ALLOWABLE SUBGRADE SLOPE IS 5% AND THE MAXIMUM CREDITABLE AVERAGE DEPTH OF TREATMENT STORAGE IS STILL 12"PER CELL.

11. LATERAL FLOW BARRIERS

LATERAL FLOW BARRIERS OF COMPACTED SUITABLE SOIL, FRAMING WRAPPED IN 30-MIL PLASTIC, OR OTHER ENGINEER DESIGN BARRIER TO LATERAL FLOW MUST SEPARATE CELLS THAT DO NOT SHARE THE SAME SOIL SUBGRADE ELEVATION. THE LATERAL FLOW BARRIERS ARE THAT PORTION OF THE PRACTICE THAT FORCE THE PONDING OF WATER ACROSS SLOPPED INSTALLATIONS; SEE STEPPED / SLOPED SOIL SUBGRADE DETAILS. WATER WILL ONLY POND IN THAT PORTION OF THE STONE SUB-BASE THAT IS BELOW THE OVER-DRAIN PIPE. THE MAXIMUM AVERAGE CREDITABLE DEPTH OF STORAGE IS 12" IN SLOPPED APPLICATIONS THE MAXIMUM DEPTH OF WATER PONDING AGAINST A LATERAL FLOW BARRIER IF 24".

12. PLANTING

TO MINIMIZE THE POTENTIAL FOR CLOGGING, PLANTING ADJACENT TO PERMEABLE PAVEMENTS SHOULD BE DESIGNED WITH DEBRIS AND MAINTENANCE IN MIND; TREES WITH NEEDLES, AND OTHER EVERGREEN SPECIES SHOULD BE AVOIDED, AS WELL AS PLANTING BEDS THAT REQUIRE FREQUENT MULCHING. PERMEABLE PAVEMENT SHOULD NOT BE PLACED IN APPLICATIONS IN FORESTS OR IMMEDIATELY DOWNSTREAM OF HIGHLY VEGETATED AREAS, E.G. PARK PATHS, WHERE THEY ARE LIKELY TO CLOG.

13. MAINTENANCE & SIGNAGE

PERMEABLE PAVEMENTS ARE SUSCEPTIBLE TO CLOGGING. OWNERS ARE TO BE EDUCATED IN PROPER SYSTEM MAINTENANCE, INCLUDING PROPER TREATMENT FOR ICE AND SNOW IN THE WINTER TO ALLOW THE SYSTEM TO FUNCTION PROPERLY. USE OF SALTS ON PERMEABLE PAVEMENT WILL DECREASE THE EXPECTED LIFESPAN OF MATERIALS AND MAY NOT BE USED WITHIN THE FIRST 12 MONTHS OF PLACEMENT OF A POURED-IN PLACE PERMEABLE CONCRETE. ALL OTHER RESTRICTIONS SHOULD BE PER MANUFACTURER'S SPECIFICATIONS. APPLICATION OF COARSE SAND ON TOP OF PERMEABLE PAVEMENT WILL REQUIRE VACUUM CLEANING EACH SPRING.
ALL MAINTENANCE AND SIGNAGE SHALL BE DONE IN ACCORDANCE WITH MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) GUIDELINES. SIGNAGE WILL BE REVIEWED AS A PART OF THE SWM PLAN TECHNICAL REVIEW.

14. POST-CONSTRUCTION

POURED IN PLACE CONCRETE MUST REMAIN FREE FROM ALL LIGHT VEHICULAR TRAFFIC, FOR A MINIMUM OF 7 DAYS. HEAVY VEHICULAR TRAFFIC MUST BE RESTRICTED FOR AT LEAST 10 DAYS AFTER PLACEMENT. POST CONSTRUCTION INFILTRATION RATES REQUIRED FOR ALL SURFACES MUST CONFORM TO ASTM C1701 FOR POURED IN PLACE PERMEABLE CONCRETE, OR ASTM C1781 FOR PERMEABLE PAVERS. INFILTRATION RATE AND SPECIFIC TEST LOCATIONS MUST BE SUBMITTED ALONG WITH THE STORMWATER MANAGEMENT "ASBUILT PLAN". PERMEABLE PAVEMENT MUST BE VACUUM CLEANED AND PAVER JOINTS REFILLED AS NECESSARY PRIOR TO FINAL INSPECTION.

MICROBIORETENTION /PLANTER BOX SPECIFICATIONS AND DETAILS

1. SIZING

THE FACILITY SHALL BE SIZED TO CAPTURE AND STORE 100% OF THE TARGET TREATMENT VOLUME. A MINIMUM OF 6"AND MAXIMUM OF 12" OF SURFACE PONDING MUST BE PROVIDED ABOVE THE FILTER MEDIA. THE SURFACE AREA (AF) OF A MICRO-BIORETENTION PRACTICE SHALL BE AT LEAST 2% OF THE CONTRIBUTING DRAINAGE AREA. PLANTING MEDIA SHALL BE BETWEEN 24 AND 48 INCHES DEEP. THE TOTAL STORAGE PROVIDED IN THE FACILITY SHALL BE COMPUTED AS THE STORAGE PROVIDED IN THE TEMPORARY PONDING AREA AND THE STORAGE PROVIDED IN THE PLANTING MEDIA AND SAND LAYERS. COMPUTATIONS SHALL ACCOUNT FOR THE POROSITY (N = 0.40) OF THE PLANTING MEDIA AND SAND. STORAGE PROVIDED IN EXCESS OF THATREQUIRED TO TREAT THE RUNOFF FOR THE 1 YEAR, 24-HOUR DESIGN STORM SHALL NOT BE COUNTED TOWARDS THE TOTAL ESDV PROVIDED.
SEE "ENHANCED FILTER"DESIGN GUIDELINES IF ADDITIONAL STORAGE IS PROPOSED BELOW THE UNDERDRAIN PIPE.
TO THE EXTENT POSSIBLE, FACILITIES SHOULD HAVE IRREGULAR OUTLINES TO BLEND NATURALLY INTO THE ENVIRONMENT. RECTANGULAR IS NOT NATURAL.

2. INFLOW DESIGN CRITERIA

RUNOFF SHALL ENTER THE MICRO-BIORETENTION FACILITY IN A NON-EROSIVE MANNER (LESS THAN 2 FPS). INFLOW MAY BE THROUGH DEPRESSED CURBS WITH WHEEL STOPS, CURB CUTS, LEVEL SPREADERS, BUBBLERS, OR CONVEYED DIRECTLY USING DOWNSPOUTS, COVERED DRAINS, CATCH BASINS, OVER GRASS, OR OTHER ACCEPTABLE CONVEYANCE METHODS. PARTICULAR CARE MUST BE TAKEN TO PREVENT EROSION OF THE SURFACE MULCH LAYER.

3. OVERFLOW DESIGN CRITERIA

IF AN INTERNAL OVERFLOW DEVICE IS NEEDED, A YARD INLET OR DOME CAP INLET MAY BE USED. DOME INLET CAPS MAY BE STACKED ON TOP OF CLEAN-OUTS TO SERVE AS THE OVERFLOW DEVICES. WHEN THIS METHOD IS USED, THE OVERFLOW INVERT OF THE DOMED CAP MUST BE SET AT THE DESIGN STORAGE LEVEL. OVERFLOW DEVICES CANNOT FEED INTO PERFORATED PIPE SECTIONS.
A SAFE NON-EROSIVE OUTLET BELOW THE OUTFALL MUST BE PROVIDED. SAFE CONVEYANCE OF THE DEVELOPED 10-YEAR STORM THROUGH THE FACILITY MUST BE DEMONSTRATED.

4. UNDERDRAIN PIPE

THE UNDERDRAIN PIPE CONSISTS OF 6-INCH DIAMETER SCHEDULE 40 OR STRONGER PERFORATED PVC PIPE AT 0.00% SLOPE. THE UNDERDRAIN PIPE WILL BE PLACED WITHIN THE GRAVEL LAYER. A MINIMUM OF THREE INCHES OF GRAVEL MUST BE PLACED UNDER THE PIPE, WITH A MINIMUM OF 6 INCHES OF GRAVEL OVER THE PIPE. PERFORATIONS MUST BE 3/8 INCH IN DIAMETER AND MUST BE LOCATED 4 INCHES ON CENTER, EVERY 90 DEGREES AROUND THE PIPE. PERFORATED PIPE MUST BEGIN AT LEAST 12" INSIDE THE FILTER MEDIA. IF THIS CANNOT BE ACHIEVED, THEN SIDES OF THE FILTER MEDIA MUST BE LINED WITH FILTER FABRIC. FILTER FABRIC MUST NOT BE WRAPPED AROUND THE UNDERDRAIN PIPE. AN ACCEPTABLE ALTERNATIVE TO PERFORATED PIPE IS 6" DIAMETER SCHEDULE 40 SLOTTED PVC PIPE WITH 0.125 INCH SLOTS. SLOTS SHALL BE 0.125 INCHES WIDE AND A MINIMUM OF 1.9 INCHES IN LENGTH, WITH A MINIMUM OF 4 SLOTS PER ROW AND 4 ROWS PER LINEAR FOOT OF PIPE.
ACCESS FOR CLEANING ALL UNDERDRAIN PIPING IS NEEDED. WATERTIGHT CLEAN-OUTS FOR EACH PIPE SHALL BE LEVEL WITH THE TOP OF THE MULCH. ALL CLEANOUTS SHALL HAVE A REMOVABLE WATERPROOF CAP. CLEANOUTS MUST BE CAPPED IMMEDIATELY AFTER THE FILTER MEDIUM IS IN PLACE.
THE REQUIRED NUMBER OF PERFORATED UNDERDRAIN PIPES IS PROPORTIONAL TO THE SURFACE AREA OF THE MICRO-BIORETENTION FACILITY. THE LENGTH OF PERFORATED PIPE SHALL BE 0.05 TIMES THE SURFACE AREA OF THE FACILITY, ROUNDED TO THE NEAREST FOOT. IN NO CASE SHALL LESS THAN 2 FT. OF PERFORATED PIPE BE PROVIDED.

5. GRAVEL BED

THE GRAVEL LAYER SURROUNDING THE UNDERDRAIN PIPE(S) MUST MEET MSHA SIZE #7 (TABLE 901A), AND MUST PROVIDE A MINIMUM OF 6 INCHES COVER OVER THE PIPE(S), AND MINIMUM 3 INCHES UNDER THE PIPE. NO GEOTEXTILE OR FILTER FABRIC IS ALLOWED TO BE PLACED HORIZONTALLY ANYWHERE WITHIN THE FILTER MEDIA. THE GRAVEL MUST BE CLEAN AND MUST BE STORED AND INSTALLED IN SUCH A MANNER THAT IT DOES NOT BECOME CONTAMINATED WITH SEDIMENT BEFORE OR AFTER INSTALLATION.

6. SAND BED

A MINIMUM 6-INCH FINE AGGREGATE SAND LAYER SHALL BE PROVIDED BELOW THE PLANTING MEDIUM. ASTM C33 OR AASHTO M6 FINE AGGREGATE CONCRETE SAND IS REQUIRED PER MONTGOMERY COUNTY SAND SPECIFICATIONS.

7. PLANTING MEDIUM

THE PLANTING MEDIUM SHALL BE 24"-48" THICK AND SHALL CONSIST OF 1/3 PERLITE OR SOLITE, 1/3 COMPOST AND 1/3 TOPSOIL. THE PERLITE SHALL BE COARSE GRADE HORTICULTURAL PERLITE. THE COMPOST SHALL BE HIGH GRADE COMPOST FREE OF STONES AND PARTIALLY COMPOSTED WOODY MATERIAL. THE TOPSOIL COMPONENT SHALL MEET THE FOLLOWING CRITERIA: CONTAIN NO MORE THAN 10% CLAY, 10-25% SILT AND 60-75% SAND AND BE FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN 2 INCHES.
THE FIRST LAYER OF THE PLANTING MEDIUM SHALL BE LIGHTLY TILLED TO MIX IT INTO THE 6-INCH SAND LAYER, SO AS NOT TO CREATE A DEFINITIVE BOUNDARY. THE PLANTING BED SHALL BE FLOODED AFTER PLACEMENT. ANY SETTLEMENT THAT OCCURS SHALL BE FILLED BACK TO THE DESIGN ELEVATION.

8. MULCH

THE MULCH LAYER IS AN IMPORTANT PART OF THE MICRO-BIORETENTION DEVICE. MUCH OF THE POLLUTANT REMOVAL CAPACITY OF THE MICRO-BIORETENTION SYSTEM IS WITHIN THE MULCH LAYER. THE SURFACE MULCH LAYER WILL CONSIST OF STANDARD DOUBLE SHREDDED AGED HARDWOOD MULCH. THE MULCH SHOULD BE APPLIED UNIFORMLY TO A DEPTH OF 3 INCHES. YEARLY REPLENISHING MAY BE NECESSARY. PINE BARK IS NOT ACCEPTABLE.

9. PLANT MATERIALS

PLANTS, THROUGH THEIR POLLUTANT UPTAKE AND EVAPO-TRANSPIRATION OF STORMWATER RUNOFF, PLAY A KEY ROLE IN THE OVERALL EFFECTIVENESS OF THE MICRO-BIORETENTION DEVICE. BOTH THE NUMBER AND TYPE OF TREE AND SHRUB PLANTINGS FOR THE SYSTEM MAY VARY, ESPECIALLY WHERE AESTHETICS OR OTHER CONSIDERATIONS ARE CRITICAL TO SITE DEVELOPMENT. WHILE NATIVE PLANTS ARE ENCOURAGED, THEY ARE NOT ALWAYS APPROPRIATE IN ALL SITUATIONS. WHILE NO HARD PLANTING RULE EXISTS, THE PLANTS SHOULD BE A MIX OF TREES, SHRUBS AND HERBACEOUS MATERIALS. HOWEVER, THERE SHOULD BE 2 TO 3 SHRUBS PLANTED PER TREE AND HERBACEOUS PLANTINGS SHALL MAKE UP 40% OF THE TOTAL NUMBER OF PLANTS. TREES SHALL BE A MINIMUM OF 1 ½ IN. CALIPER, SHRUBS SHALL BE MINIMUM 2 GAL. SIZE AND HERBACEOUS PLANTS SHALL BE A MINIMUM 1 GAL SIZE. MATURE PLANT CANOPY SHOULD COVER 85% OF THE MICRO-BIORETENTION DEVICE. ALTERNATIVE PLANTING SCHEMES, INCLUDING USE OF GRASSES, MAY BE CONSIDERED IN SOME SITUATIONS, SO LONG AS THE PLANTING PLAN IS DESIGNED BY A REGISTERED LANDSCAPE ARCHITECT REGISTERED IN THE STATE OF MARYLAND, HOWEVER LAWN GRASSES ARE NOT APPROPRIATE FOR THESE FACILITIES. ALL PLANTINGS SHALL BE IN ACCORDANCE WITH THE MONTGOMERY COUNTY LANDSCAPE GUIDELINES. ALL LANDSCAPE PLANS MUST BE SEALED BY A REGISTERED LANDSCAPE ARCHITECT. SINCE THE PLANTS ARE AN INTEGRAL PART OF THE MICRO-BIORETENTION SYSTEM, NO CHANGES TO THE APPROVED LANDSCAPE PLAN WILL BE ALLOWED UNLESS AN ALTERNATE PLANT LIST, PREPARED BY A REGISTERED LANDSCAPE ARCHITECT, HAS BEEN APPROVED BY DPS PRIOR TO INSTALLATION. SINCE PLANT AVAILABILITY CAN CHANGE, DPS SUGGESTS INCLUDING AN ALTERNATE PLANT LIST ON THE LANDSCAPING PLANS.

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GAITHERSBURG, MARYLAND

CONTACT:

DIVISION OF TRANSPORTATION ENGINEERING
CONSTRUCTION SECTION
240-777-7210
DESIGN SECTION
240-777-7221

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section Date
APPROVED
Chief, Division of Transportation Engineering Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: Drawn by: Checked by:

MONTGOMERY CO. DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

Stormwater Management:
Reviewed Date
Approved Date
S.M.FILE NO.

Sediment Control Technical Requirements:
Reviewed Date
Approved Date

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

Administrative Requirements:
Reviewed Date
SEDIMENT CONTROL PERMIT NO.
MCDOT APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL, IF THE PROJECT HAS NOT STARTED UNLESS THE PERMIT HAS BEEN EXTENDED

FRANKLIN AVENUE
SIDEWALK
STORMWATER MANAGEMENT NOTES

SCALE : AS SHOWN
SWM-08
Project No. : TBD 63 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\Jerry's Files\Incoming\12-29-22_Jerry_CADD\dwg Files\dwg Files\pSW-Details.dwg
DATE: Mar 13, 2023 - 12:45pm

MAINTENANCE OF TRAFFIC - GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GENERAL NOTES AND STANDARDS PROVIDED IN CATEGORY "1" OF THE LATEST EDITION OF THE MDOT SHA BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES, THE MARYLAND MAMNUAL ON UNIFORM TRAFFIC CONTROL DEVICES - 2011 EDITION (MD MUTCD) AND SUBSEQUENT REVISION ADOPTED BY THE STATE OF MARYLAND, AND THE MONTGOMERY COUNTY DEPARTMENT OF TRASPORTATION MCDOT STANDARDS SHALL GOVERN OVER THIS MAINTENANCE OF TRAFFIC PLANS.
2. PRIOR TO STARTING ANY LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL FIELDMARK THE LIMITS OF DISTURBANCE.
3. PRIOR TO BEGINNING WORK OR NEW CONSTRUCTION STAGE, THE CONTRCTOR SHALL REFER TO THE EROSION AND SEDIMENT CONTROL SHEETS FOR THE REQUIRED EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE EXPEDITING THE MOVEMENT OF TRAFFIC DURING CONSTRUCTION.
5. ALL STANDARD REGULATORY AND WARNING SIGNS USED FOR MAINTENANCE OF TRAFFIC SHALL CONFORM TO THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES - 2011 EDITION (MD MUTCD - 2011) AS WELL AS THE MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD SIGN BOOK - STANDARD SIGNS - 2009 REVISION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING THE LATEST EDITIONS AND SUPPLEMENTS OF THE MUTCD.
6. THE MAINTENANCE OF TRAFFIC PLAN SHALL UTILIZE THE GENERAL NOTES STANDARD NOS. MD 104.00-01 TO MD 104.00-18, MD 104.01-01 TO MD 104.01-81, MD 104.02-02, MD 104.02-06, MD 104.02-10 AND MD 104.02-14
7. FOR INFORMATION ON CHANNELIZING DEVICES, REFER TO STANDARD NOS. MD 104.01-30B AND MD 104.01-30D
8. FOR INFORMATION ON STAGED ROADWAY CONSTRUCTION, REFER TO STANDARD NO. MD 104.01-28.
9. ALL TRAVEL LANES SHALL BE A MINIMUM WIDTH OF 11 FT.
10. ALL EXCAVATION WHICH RESULTS IN A PAVEMENT EDGE DROP-OFF SHALL BE IN ACCORDANCE WITH STANDARD NOS. MD 104.06-15 TO MD 104.06-18. TEMPORARY GRADED AGGREGATE BASE COARSE AND HMA FOR MOT SHALL BE USED AS BACKFILL TO SATISFY THE PAVEMENT EDGE DROP-OFF STANDARDS.
11. EXCAVATIONS SHALL BE BACKFILLED WITH GRADED AGGREGATE BAE PRIOR TO THE END OF THE WORK DAY IN CONFORMANCE WITH STANDARD NO. MD 104.01-28.
12. NO WORK IS TO BEGIN UNTIL ALL ADVANCE WARNING SIGNS, CHANNELIZATION DEVICES AND PAVEMENT MARKING ARE OPERATIONAL.
13. ADVANCE WARNING SIGNS SHALL BE INSTALLED AT THE MINIMUM SPACING OF 200 FEET TO AN EXISTING SIGN, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
14. SIGNS USED FOR THE TEMPORARY TRAFFIC CONTROLL THAT ARE NOT APPLICABLE FOR THE PARTICULAR CONSTRUCTION PHASE SHALL BE REMOVED OR COMPLETELY COVERED WITH AN OPAQUE MATERIAL.
15. EXISTING SIGNS THAT ARE LOCATED IN THE WORK AREA NEED TO EITHER REMAIN IN PLACE OR BE RELOCATED AS DIRECTED BY THE ENGINEER.
16. ALL TEMPORARY SIGNAGE AND DEVICES USED DURING LANE CLOSURES SHALL BE REMOVED OR COVERED WHEN LANE CLOSURES ARE PROHIBITED.
17. DURING EACH CONSTRUCTION PHASE THE CONTRACTOR SHALL MAINTAIN ALL APPLICABLE ROUTE MARKERS AND REMOVE OR COVER ANY NON APPLICABLE SIGNS.
18. PAVEMENT MARKINGS NO LONGER APPLICABLE FOR A PARTICULAR PHASE SHALL BE REMOVED OR COVERED AS DIRECTED BY THE ENGINEER.
19. PERMANENT MARKINGS THAT ARE DAMAGED SHALL BE REPAIRED AT THE DISCRETION OF THE ENGINEER.
20. PORTABLE VARIABLE MESSAGE SIGNS AND/OR ARROW PANELS SHALL BE USED AS DIRECTED BY THE CONSTRUCTION PROJECT ENGINEER.
21. STORAGE OF CONSTRUCTION EQUIPMENT AND MATERIAL SHALL BE LOCATED OFF THE TRAVEL LANES AND BEHIND PROTECTION AT ALL TIMES.
22. NO CONSTRUCTION VEHICLES SHALL ENTER THE RESIDENTIAL STREETS OR ROADWAYS ADJACENT TO THE WORK ZONE.
23. WHERE TWO ENTRANCES EXISTS FOR ONE PROPERTY, CONSTRUCTION SHALL BE SEQUENCED SO THAT ONLY ONE ENTRANCE WILL BE DISTURED AT ANY GIVEN TIME. WHEN ONLY ONE ENTRANCE EXIST FOR A PROPERTY, WHEN NECESSARY, THE CONTRACTOR SHALL PROVIDE FLAGGERS TO CONTROL ENTRANCE CONSTRUCTION.
24. TRAFFIC CONTROL DEVICES AND OTHER CONSTRUCTION MATERIALS SHALL NOT INTRUDE THE USABLE WIDTH OF THE SIDEWALK, TEMPORARY PATHWAY, OR OTHER PEDESTRIAN FACILITY.
25. WHERE A SIDEWALK IS CLOSED DURING A TEMPORARY CONSTRUCTION, THE CONTRACTOR SHALL INSTALL A BARRIER ACCROSS THE FULL WIDTH OF THE SIDEWALK APPROACHING THE CLOSSURE. THIS BARRIER SHALL BE DETECTABLE BY A VISUALLY IMPAIRED INDIVIDUAL TRAVELLING WITH THE AID OF A CANE.
26. WHERE SIDEWALK INTERSECT A TEMPORARY CONSTRUCTION ACCESS, THE CONTRACTOR SHALL PROVIDE AN ADA COMPLIANT PEDESTRIAN CROSSING THROUGH THE TEMPORARY CONSTRUCTION ACCESS.
27. THE CONTRACTOR SHALL FOLLOW STANDARD NOS. MD 104.06-09C TO MAINTAIN PEDESTRIAN ACCESS THROUGH THE SITE AND SHALL DO SIDEWALK IMPROVEMENTS TO ONE SIDE OF THE ROAD AT A TIME.
28. THE CONTRACTOR SHALL MAINTAIN ACESS/EGRESS FOR ALL EMERGENCY VEHICLES.

SEQUENCE OF CONSTRUCTION

1. INSTALL ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES LIKE CHANNELIZING DEVICES AS SHOWN ON PLANS MT-02 TO MT-12 IN ACCORDANCE WITH MUTCD, SHA AND MCDOT STANDARD NOS. TCP-105.01 TO TCP-105.04 (INTERSECTION FLAGGING OPERATION).
2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES SPECIFIED FOR EACH STAGE IN THE EROSION AND SEDIMENT CONTROL PLANS.
3. PERFORM SIDEWALK WORK, DRIVEWAYS, INSTALL OR REPLACE CURB AND GUTTER WITH FULL DEPTH PAVEMENT AS SHOWN ON TYPICAL SECTIONS DRAWING TS-01.
   PERFORM STORM DRAINAGE WORK ALONG WITH SWM STRUCTURES AS SHOWN ON STORM DRAIN AND SWM PLANS.
4. CONTRACTOR SHALL FOLLLOW CONSTRUCTION STAGING PLANS AS SHOWN ON DRAWINGS MT-02 TO MT-12 (STAGE 1 TO STAGE 11).

0 30 60
SCALE: 1" = 30'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC GENERAL NOTES

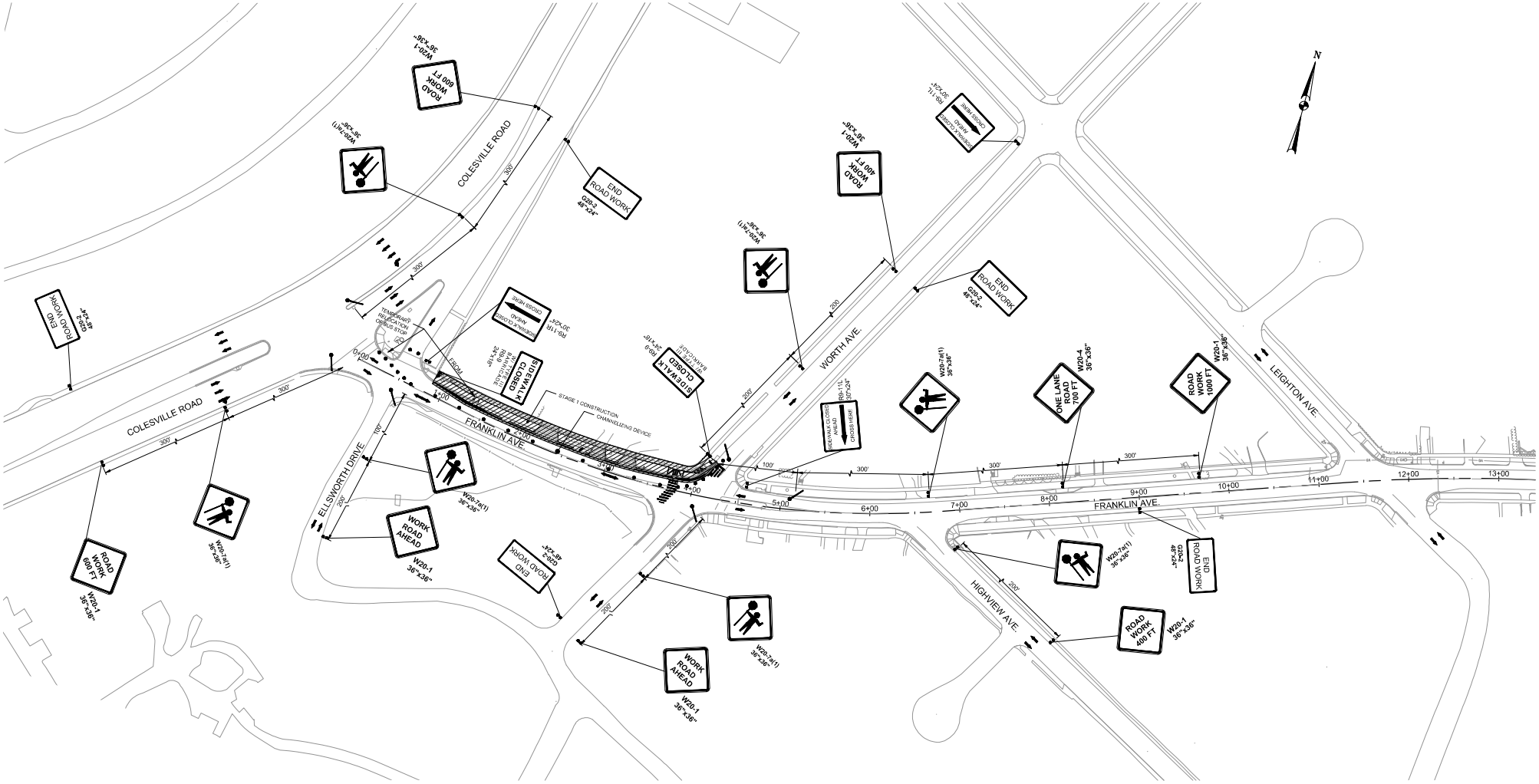
SCALE : N/A

MT - 01

Project No.: TBD 64 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\64-MT-01.dwg
DATE: Mar 06, 2023 - 2:02pm

SHEET NO.	TOTAL SHEETS
65	109



MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

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MONTGOMERY COUNTY
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ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 1

SCALE : 1" = 50'

MT - 02

Project No.: TBD 65 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\65-MT-02.dwg
DATE: Mar 06, 2023 - 5:04pm

SHEET NO.	TOTAL SHEETS
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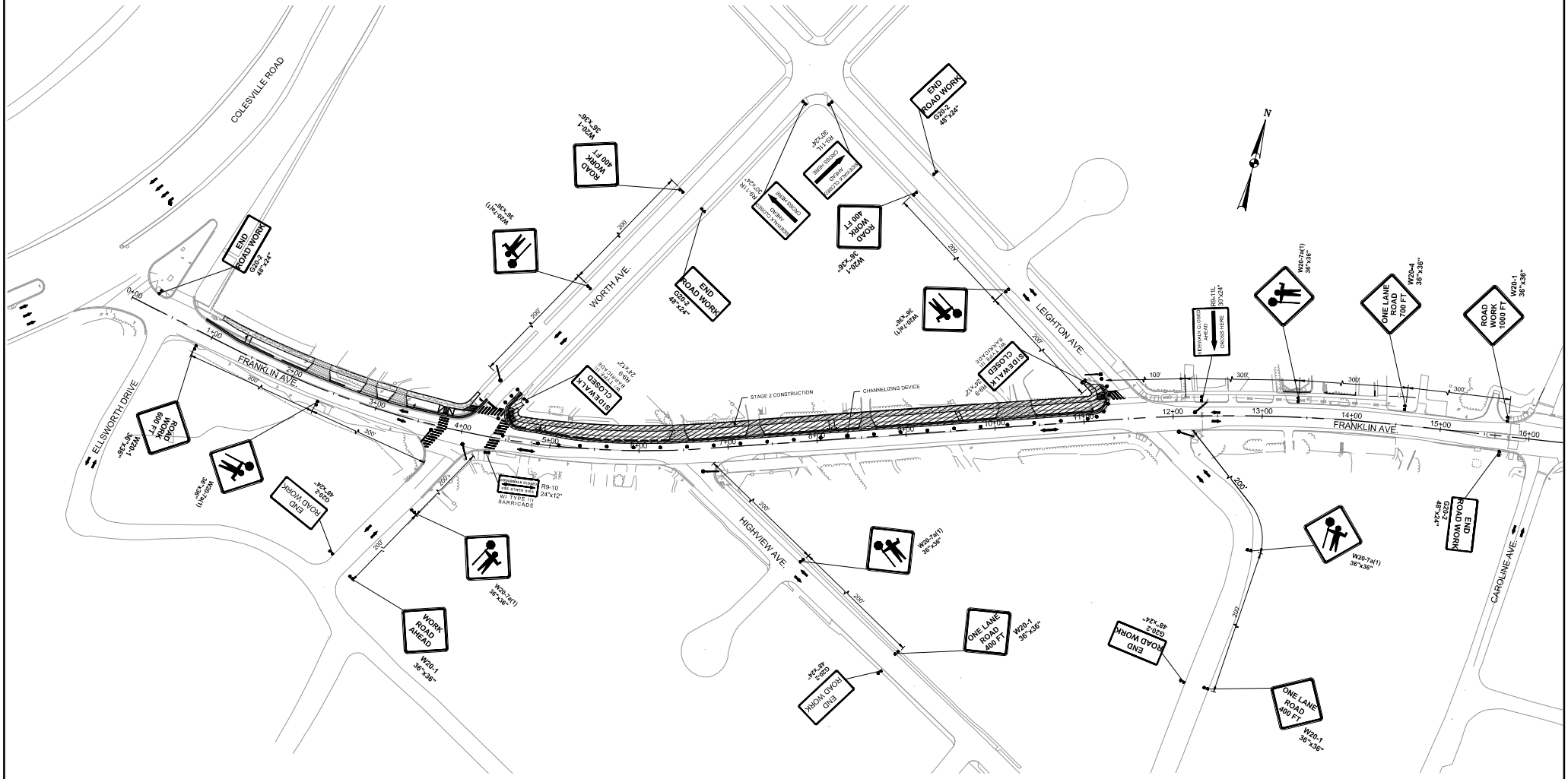

MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

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MONTGOMERY COUNTY
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ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

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Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 2

SCALE : 1" = 50'

MT - 03

Project No.: TBD 66 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\66-MT-03.dwg
DATE: Mar 07, 2023 - 9:34am

SHEET NO.	TOTAL SHEETS
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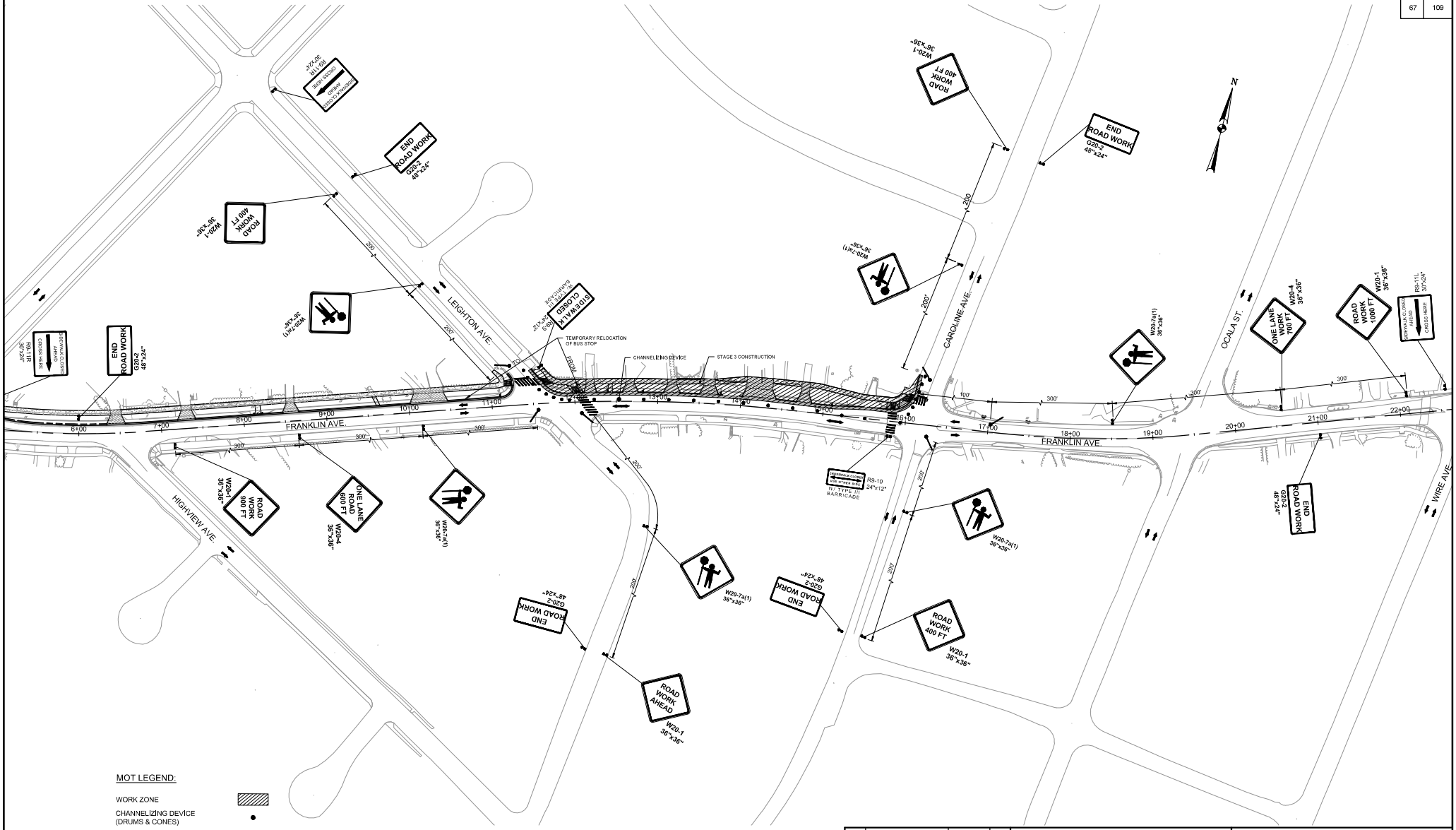

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

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Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 3

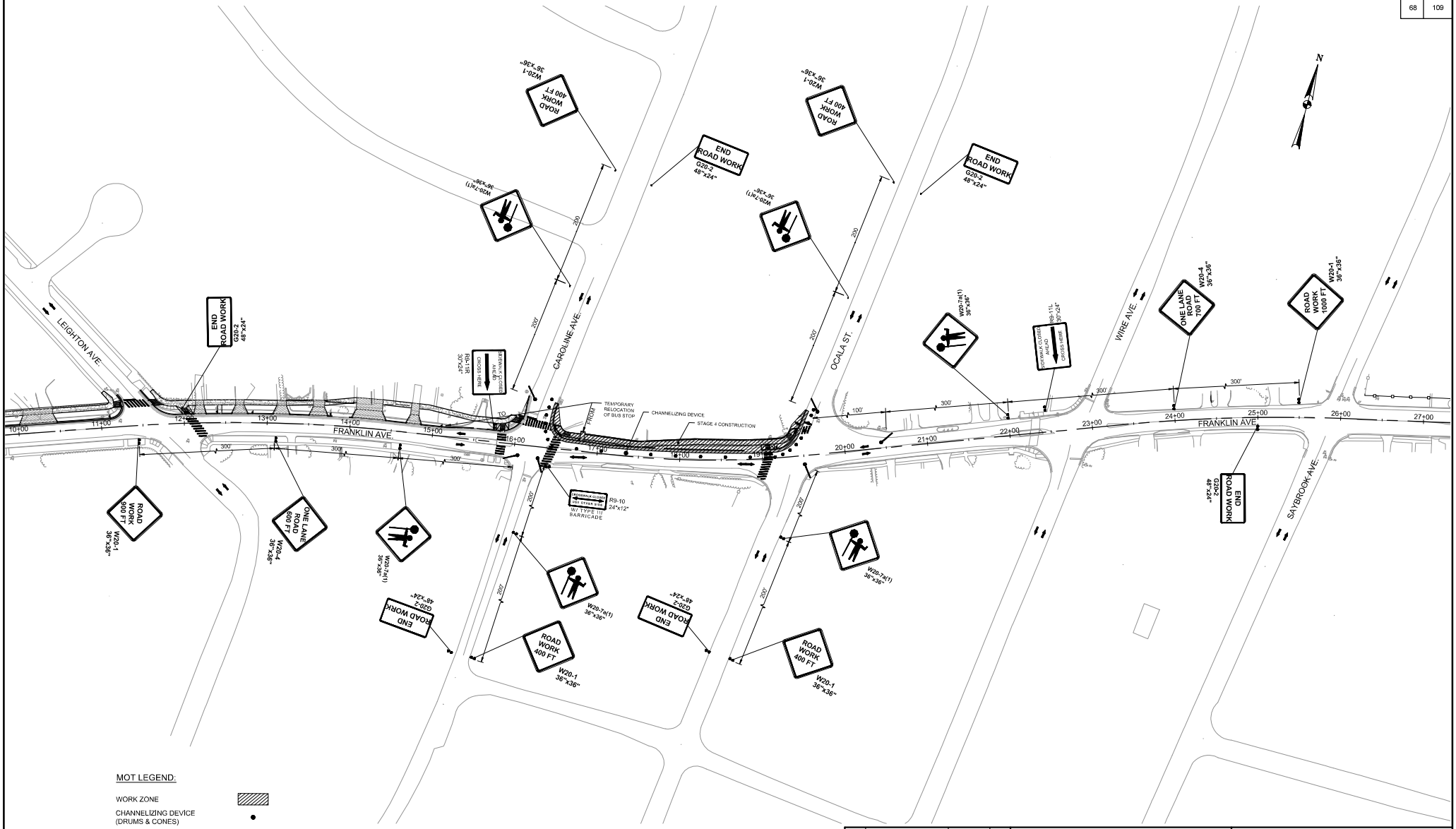
SCALE : 1" = 50'

MT - 04

Project No.: TBD 67 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\67-MT-04.dwg
DATE: Mar 07, 2023 - 9:26am

SHEET NO.	TOTAL SHEETS
68	109



MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

SHELADIA Engineers, Architects Development Consultants
10875 Strathy Grove Road, Rockville, MD, 20850
Phone: 301-309-3808 Fax: 301-948-7174
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NO.	REVISION	DATE	BY

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ROCKVILLE, MARYLAND

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Chief, Division of Transportation Engineering — Date

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Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 4

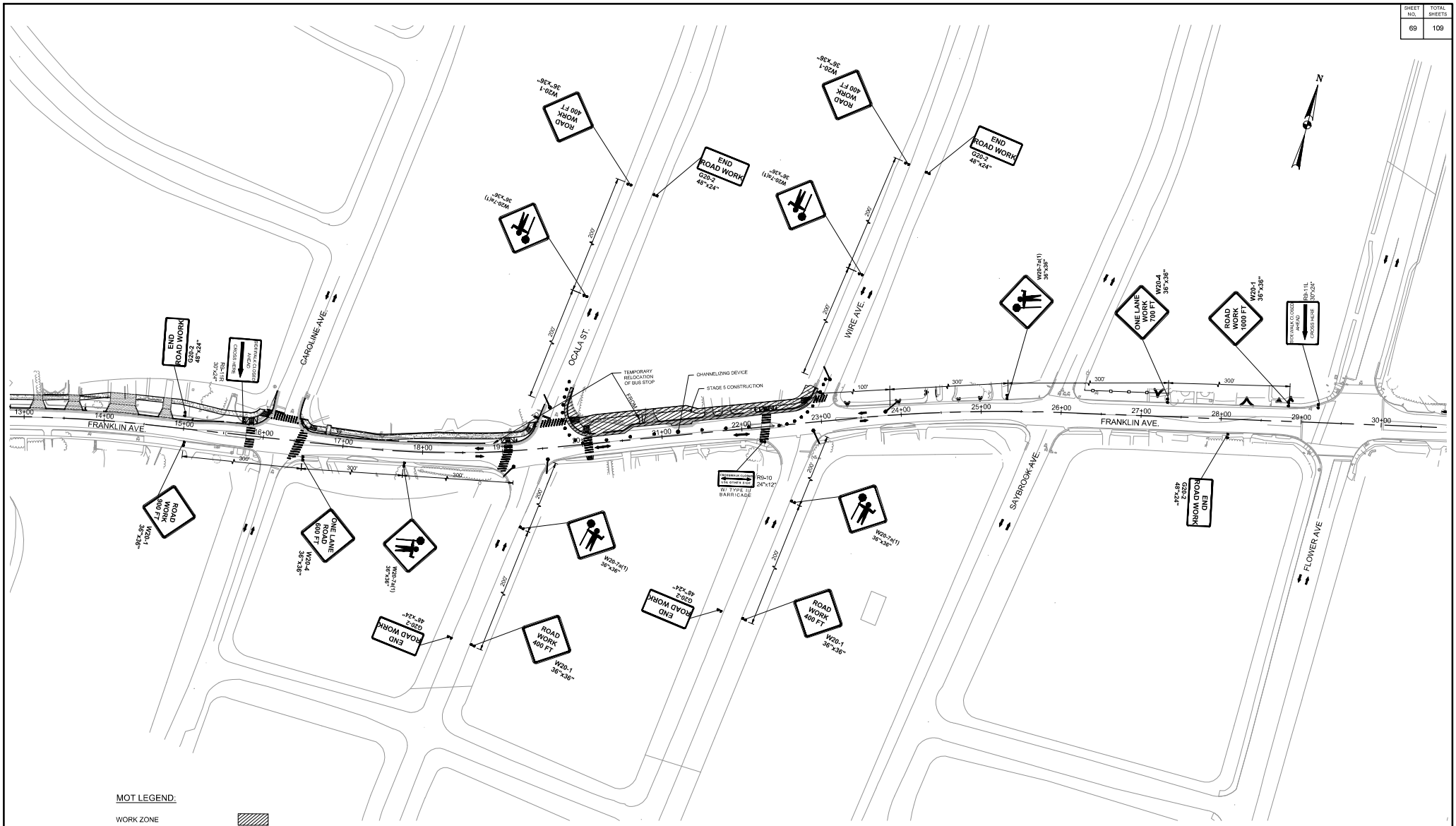
SCALE : 1" = 50'

MT - 05

Project No.: TBD 68 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\68-MT-05.dwg
DATE: Mar 07, 2023 - 9:48am

SHEET NO.	TOTAL SHEETS
69	109



MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

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Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 5

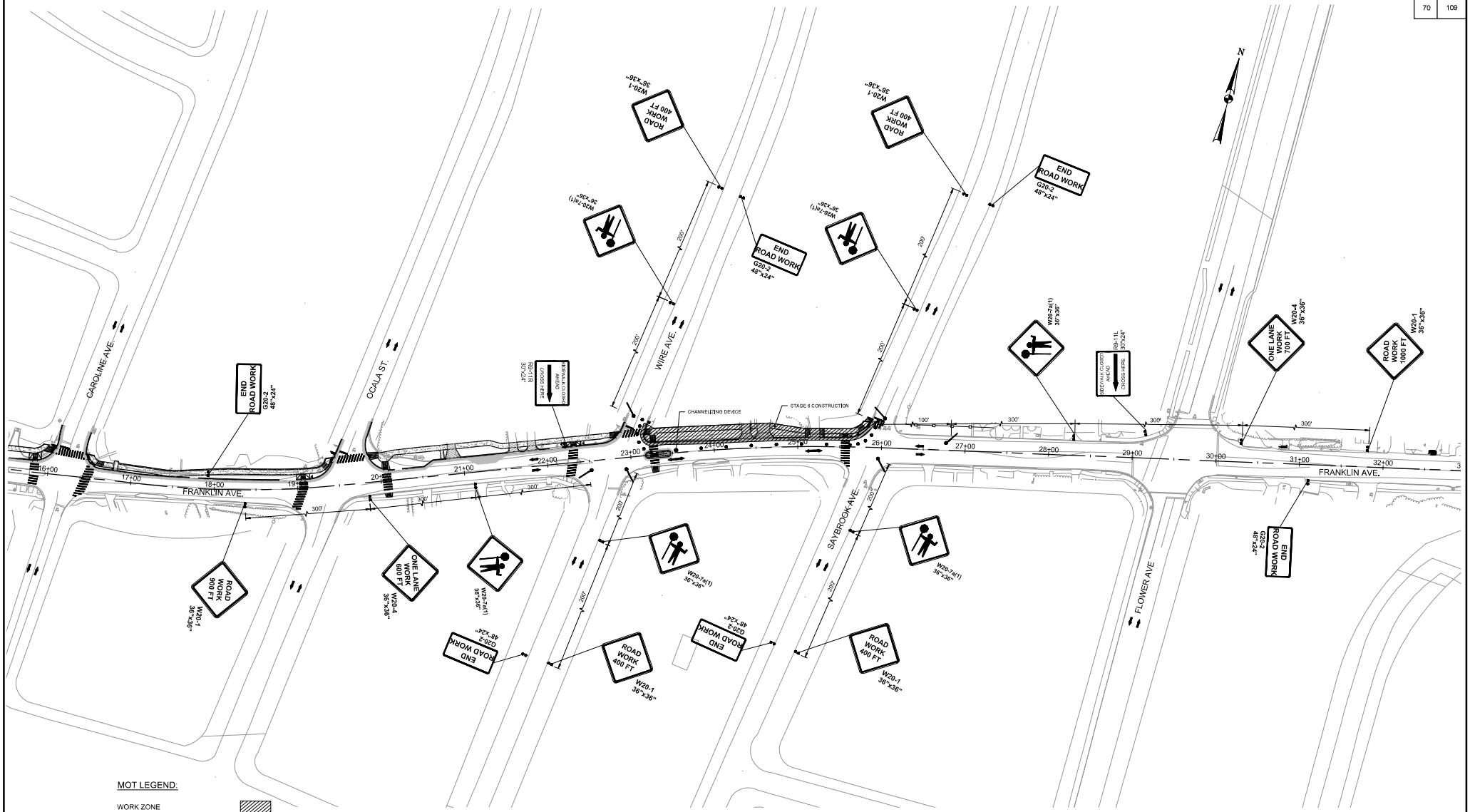
SCALE : 1" = 50'

MT - 06

Project No.: TBD 69 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\69-MT-06.dwg
DATE: Mar 07, 2023 - 9:51am

SHEET NO.	TOTAL SHEETS
70	109



MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

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ROCKVILLE, MARYLAND

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Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 6

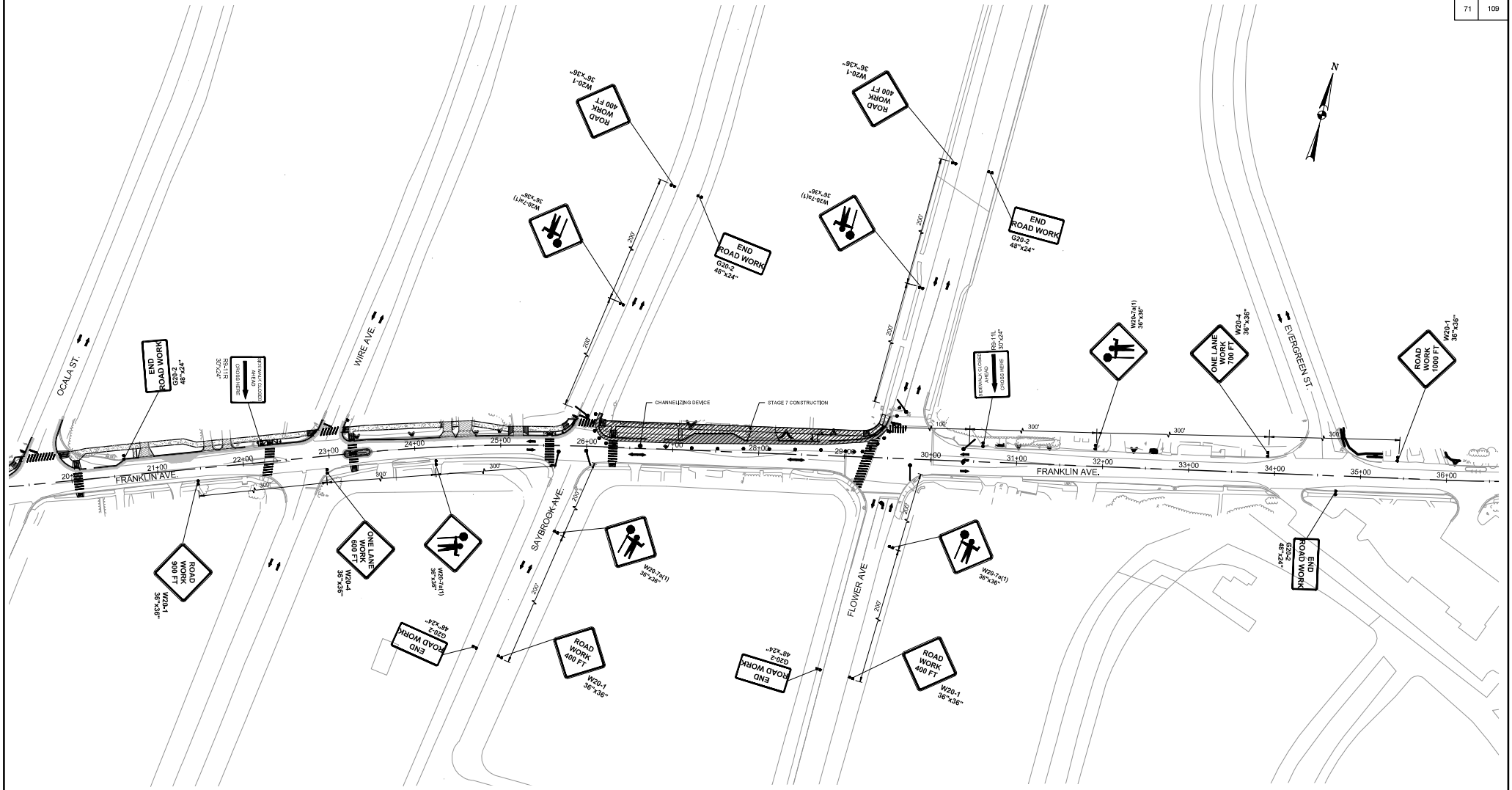
SCALE : 1" = 50'

MT - 07

Project No.: TBD 70 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\70-MT-07.dwg
DATE: Mar 07, 2023 - 10:01am

SHEET NO.	TOTAL SHEETS
71	109



MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

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FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 7

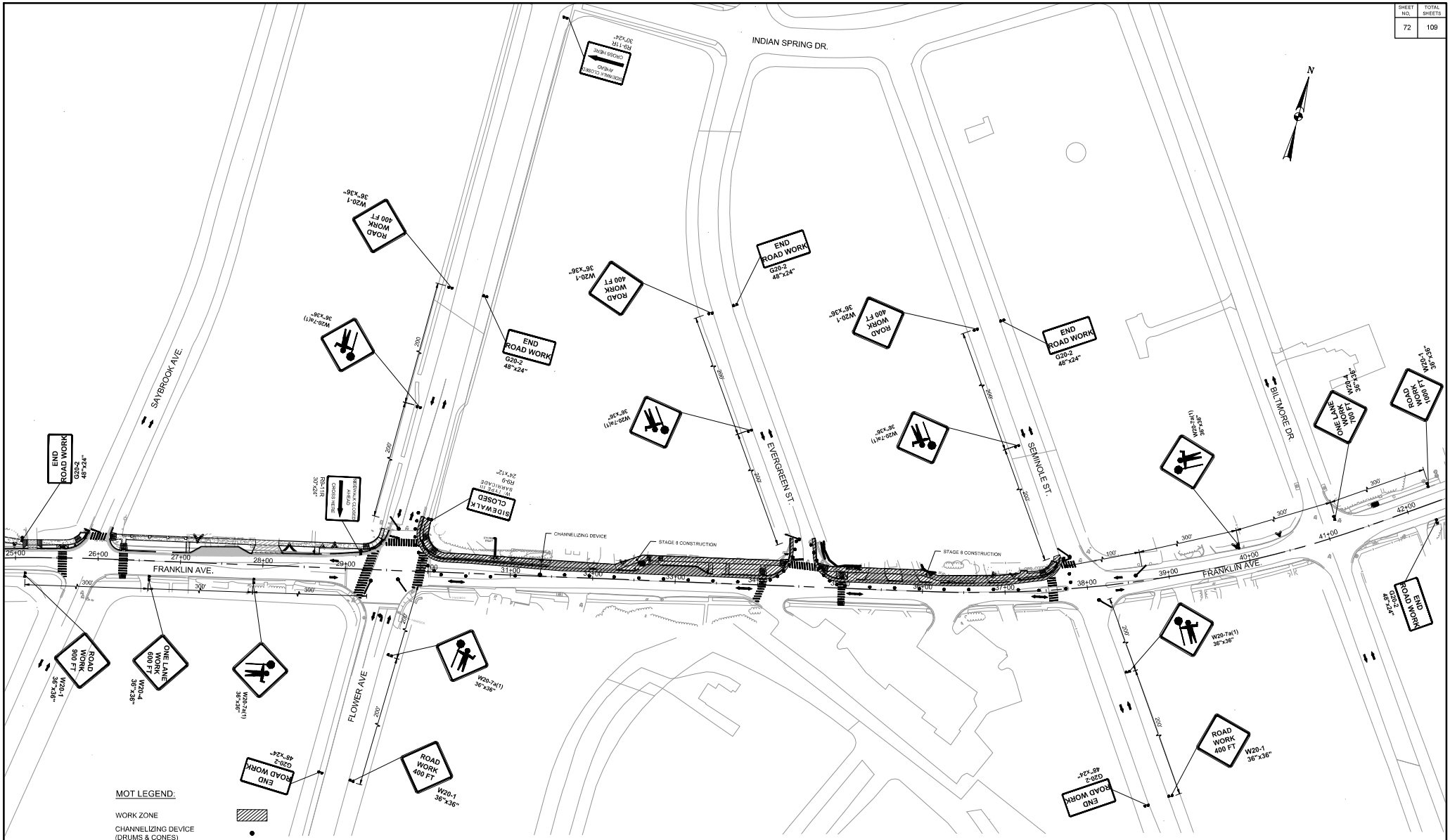
SCALE : 1" = 50'

MT - 08

Project No.: TBD 71 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\71-MT-08.dwg
DATE: Mar 07, 2023 - 10:12am

SHEET NO.	TOTAL SHEETS
72	109



MOT LEGEND:

WORK ZONE	▨
CHANNELIZING DEVICE (DRUMS & CONES)	●
SIGN SUPPORT & POST	●●
TYPE III BARRICADE	⌶
FLAGGER	⟋●
DIRECTION OF TRAFFIC DURING CONSTRUCTION	➡

0 50 100
SCALE: 1" = 50'

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Development Consultants
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www.sheladia.com

NO.	REVISION	DATE	BY

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Chief, Design Section ____ Date ____

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Chief, Division of Transportation Engineering ____ Date ____

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FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE - 8

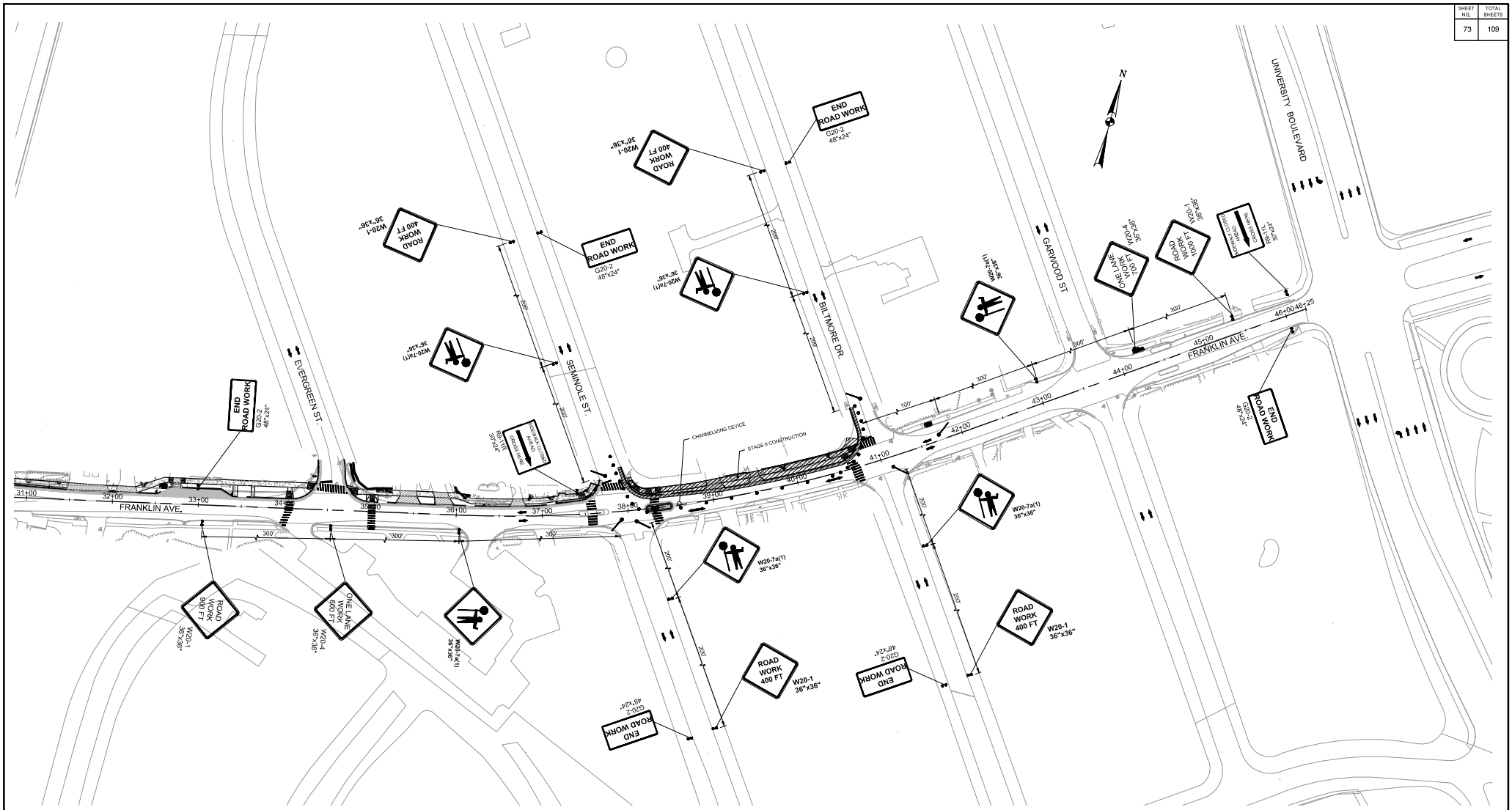
SCALE : 1" = 50'

MT - 09

Project No. : TBD 72 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\72-MT-09.dwg
DATE: Mar 07, 2023 - 10:22am

SHEET NO.	TOTAL SHEETS
73	109



MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

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ROCKVILLE, MARYLAND

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Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

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FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 9

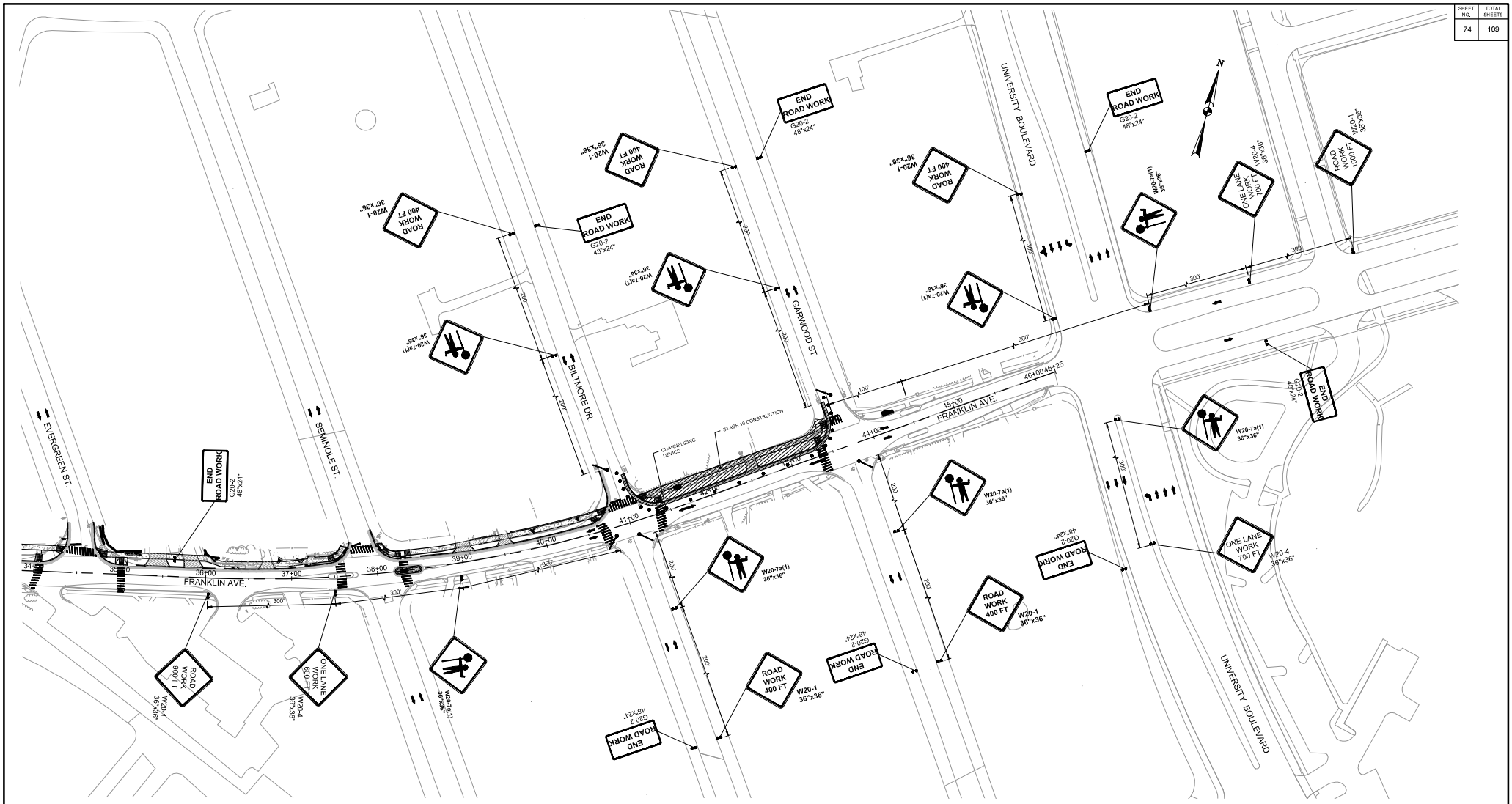
SCALE : 1" = 50'

MT - 10

Project No.: TBD 73 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\73-MT-10.dwg
DATE: Mar 07, 2023 - 10:28am

SHEET NO.	TOTAL SHEETS
74	109



MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

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FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 10

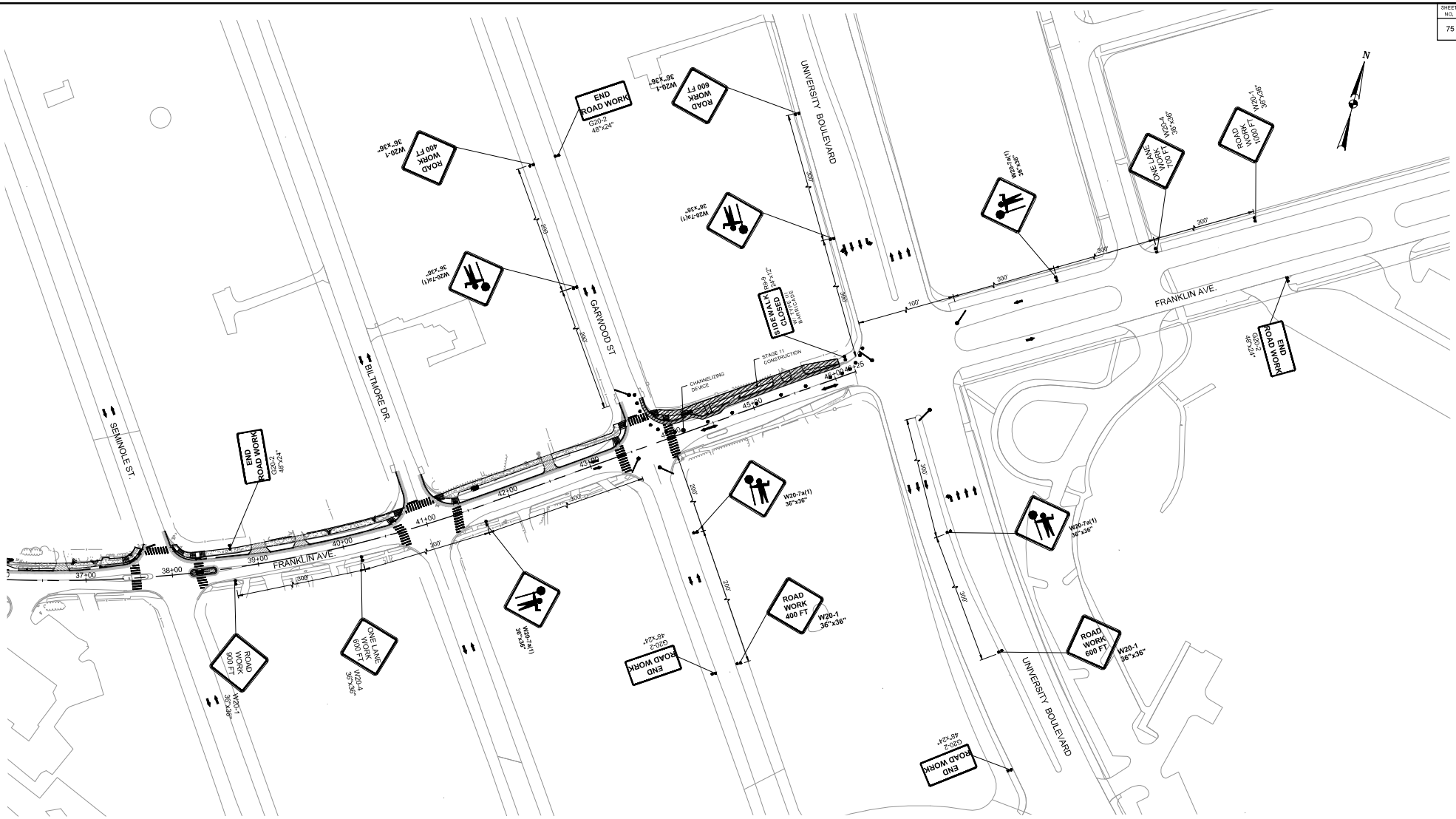
SCALE : 1" = 50'

MT - 11

Project No.: TBD 74 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\74-MT-11.dwg
DATE: Mar 07, 2023 - 10:31am

SHEET NO.	TOTAL SHEETS
75	109



MOT LEGEND:

- WORK ZONE
- CHANNELIZING DEVICE (DRUMS & CONES)
- SIGN SUPPORT & POST
- TYPE III BARRICADE
- FLAGGER
- DIRECTION OF TRAFFIC DURING CONSTRUCTION

0 50 100
SCALE: 1" = 50'

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NO.	REVISION	DATE	BY

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Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STAGE – 11

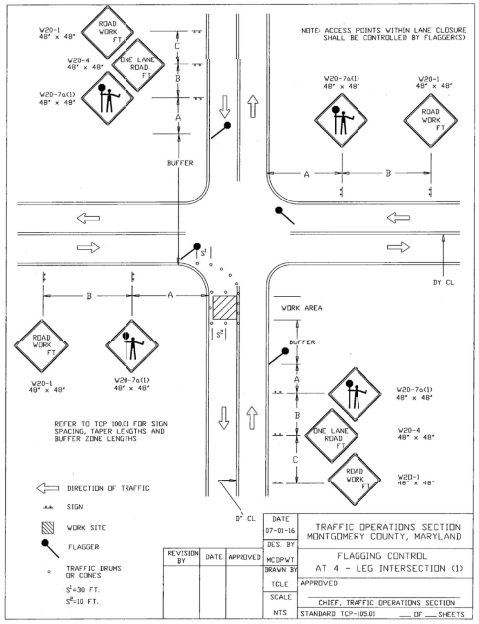
SCALE: 1" = 50'

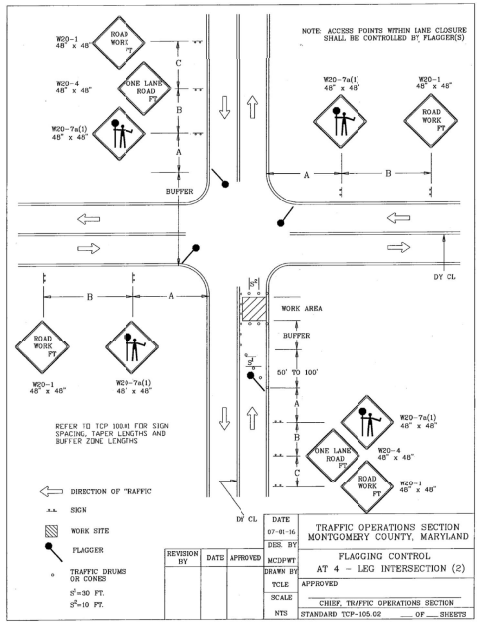
MT - 12

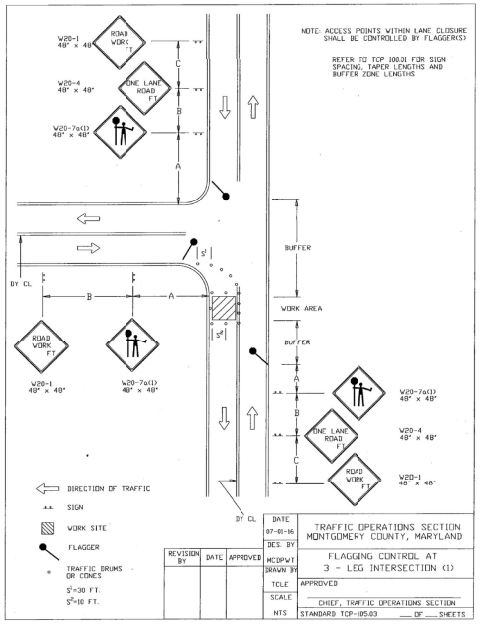
Project No.: TBD 75 of 109

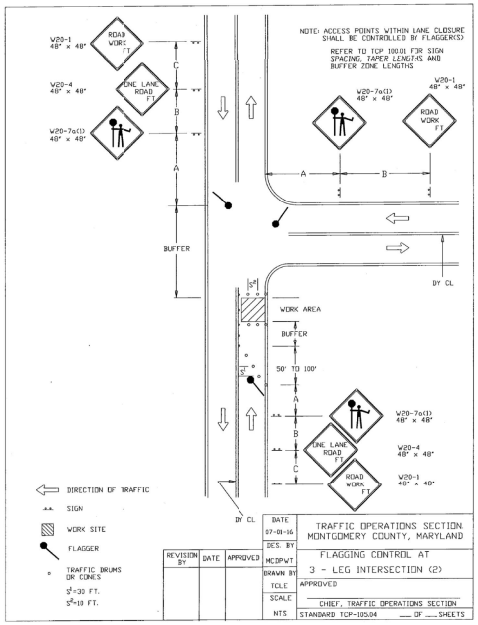
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\75-MT-12.dwg
DATE: Mar 07, 2023 - 10:39am

SHEET NO.	TOTAL SHEETS
76	109









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FRANKLIN AVENUE SIDEWALK

MAINTENANCE OF TRAFFIC STANDARD DETAILS

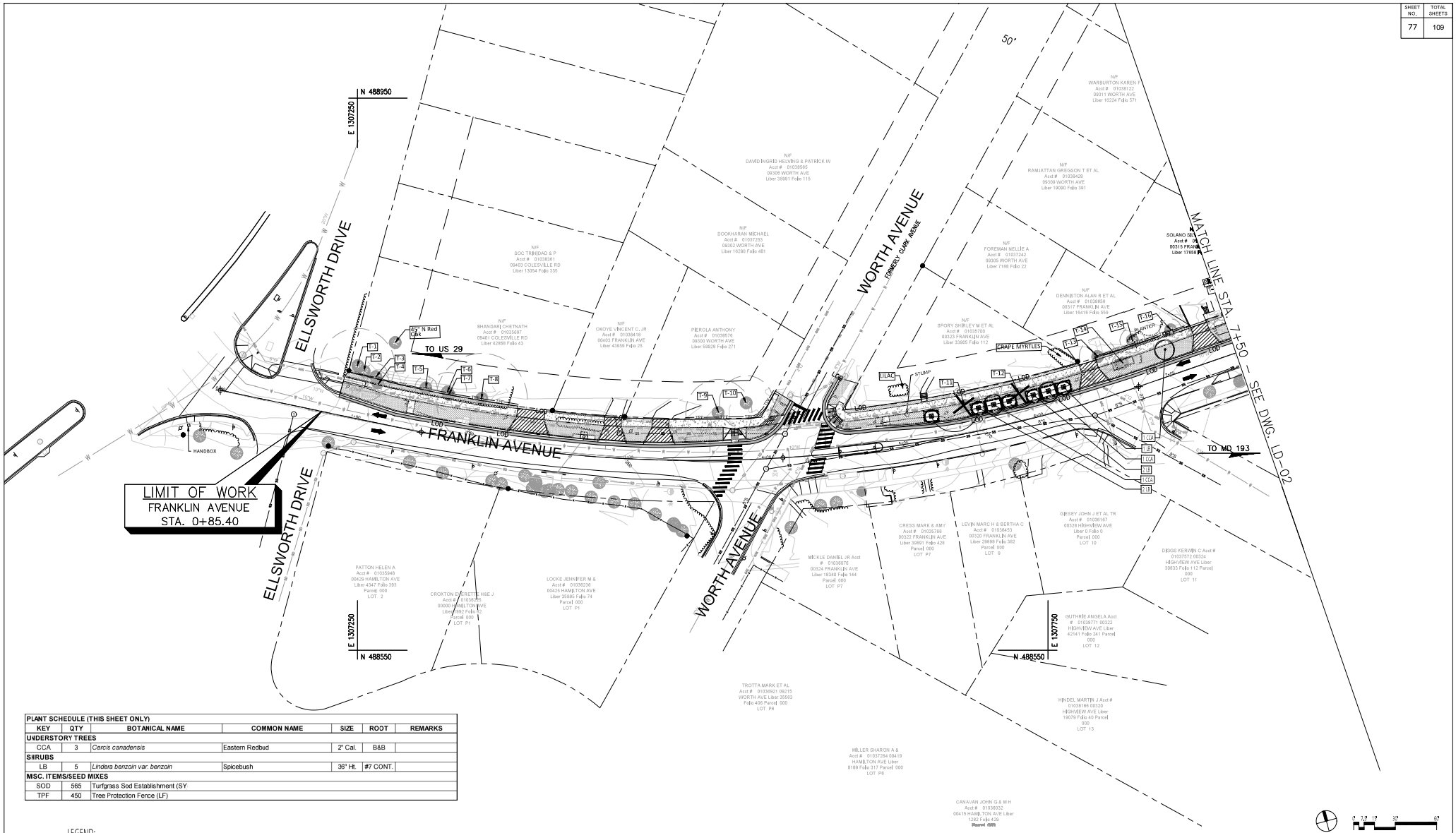
SCALE : N/A

MT - 13

Project No.: TBD 76 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\100% Construction Documents\DESIGN\76-MT-DT01.dwg
DATE: Mar 07, 2023 - 10:42am

SHEET NO.	TOTAL SHEETS
77	109



PLANT SCHEDULE (THIS SHEET ONLY)

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
UNDERSTORY TREES						
CCA	3	*Cercis canadensis*	Eastern Redbud	2" Cal.	B&B	
SHRUBS						
LB	5	*Lindera benzoin var. benzoin*	Spicebush	36" Ht.	#7 CONT.	
MISC. ITEMS/SEED MIXES						
SOD	565	Turfgrass Sod Establishment (SY				
TPF	450	Tree Protection Fence (LF)				

LEGEND:

- UNDERSTORY TREE
- SHRUB
- STORMWATER PLANTING
- LOD — LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE
- EXISTING TREE CRITICAL ROOT ZONE
- EXISTING TREE TO BE REMOVED
- TURFGRASS SOD

0 30 60
SCALE: 1" = 30'

Engineers, Architects
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10820 Stony Grove Road, Rockville, MD 20850
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ROCKVILLE, MARYLAND

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Chief, Design Section — Date

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Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK
LANDSCAPE PLAN

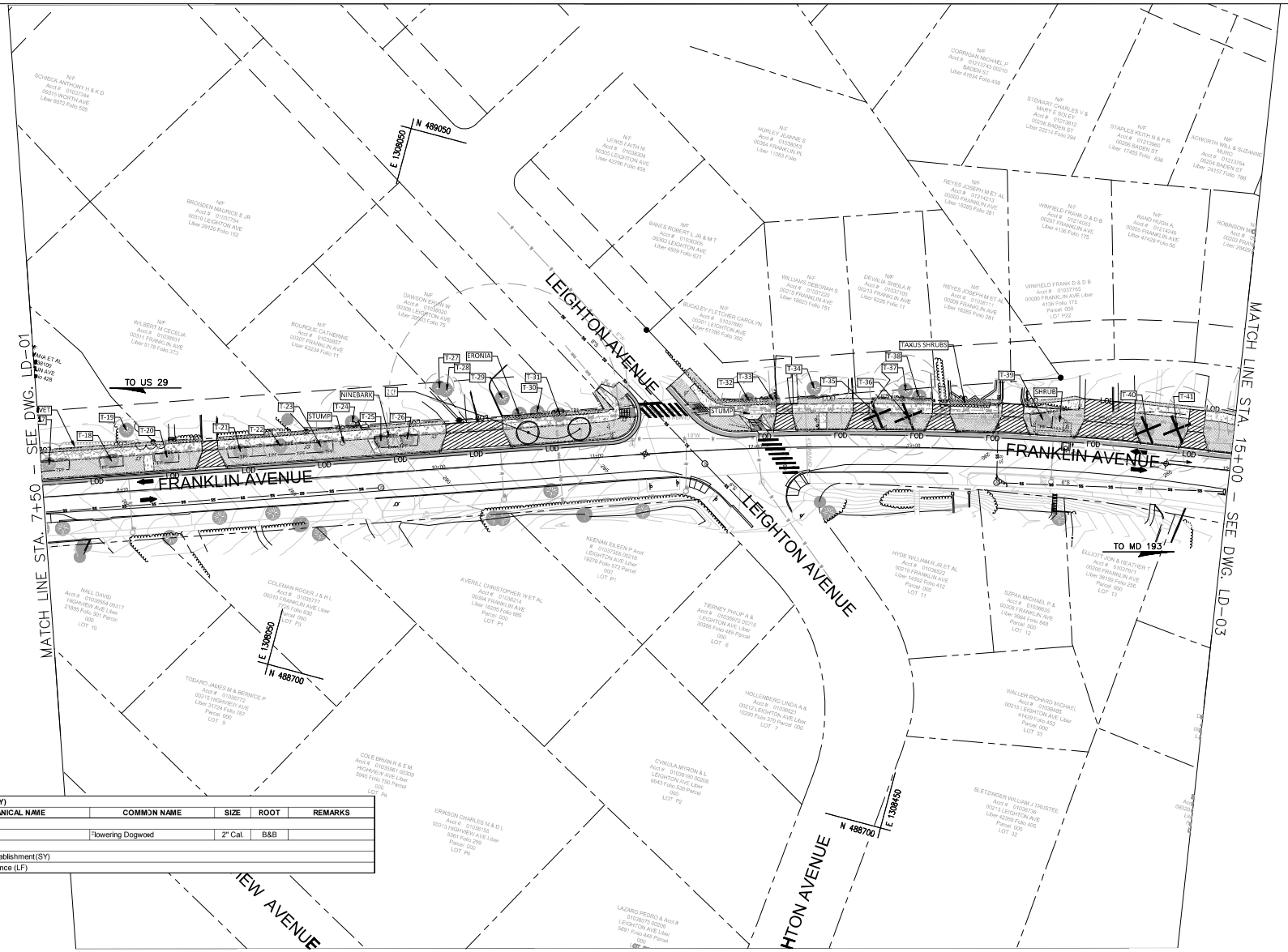
SCALE: 1" = 30'

LD – 01

Project No.: TBD 77 of 109

FILE:

SHEET NO.	TOTAL SHEETS
78	109



PLANT SCHEDULE (THIS SHEET ONLY)						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
UNDERSTORY TREES						
CF	2	*Cornus florida*	Flowering Dogwood	2" Cal.	B&B	
MISC. ITEMS/SEED MIXES						
SOD	812	Turfgrass Sod Establishment(SY)				
TPF	628	Tree Protection Fence (LF)				

LEGEND:

- UNDERSTORY TREE
- SHRUB
- STORMWATER PLANTING
- LOD — LIMIT OF DISTURBANCE
- TPF — TPF — TREE PROTECTION FENCE
- EXISTING TREE CRITICAL ROOT ZONE
- EXISTING TREE TO BE REMOVED
- TURFGRASS SOD

0 30 60
SCALE: 1" = 30'

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NO.	REVISION	DATE	BY

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ROCKVILLE, MARYLAND

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK
LANDSCAPE PLAN

SCALE: 1" = 30'

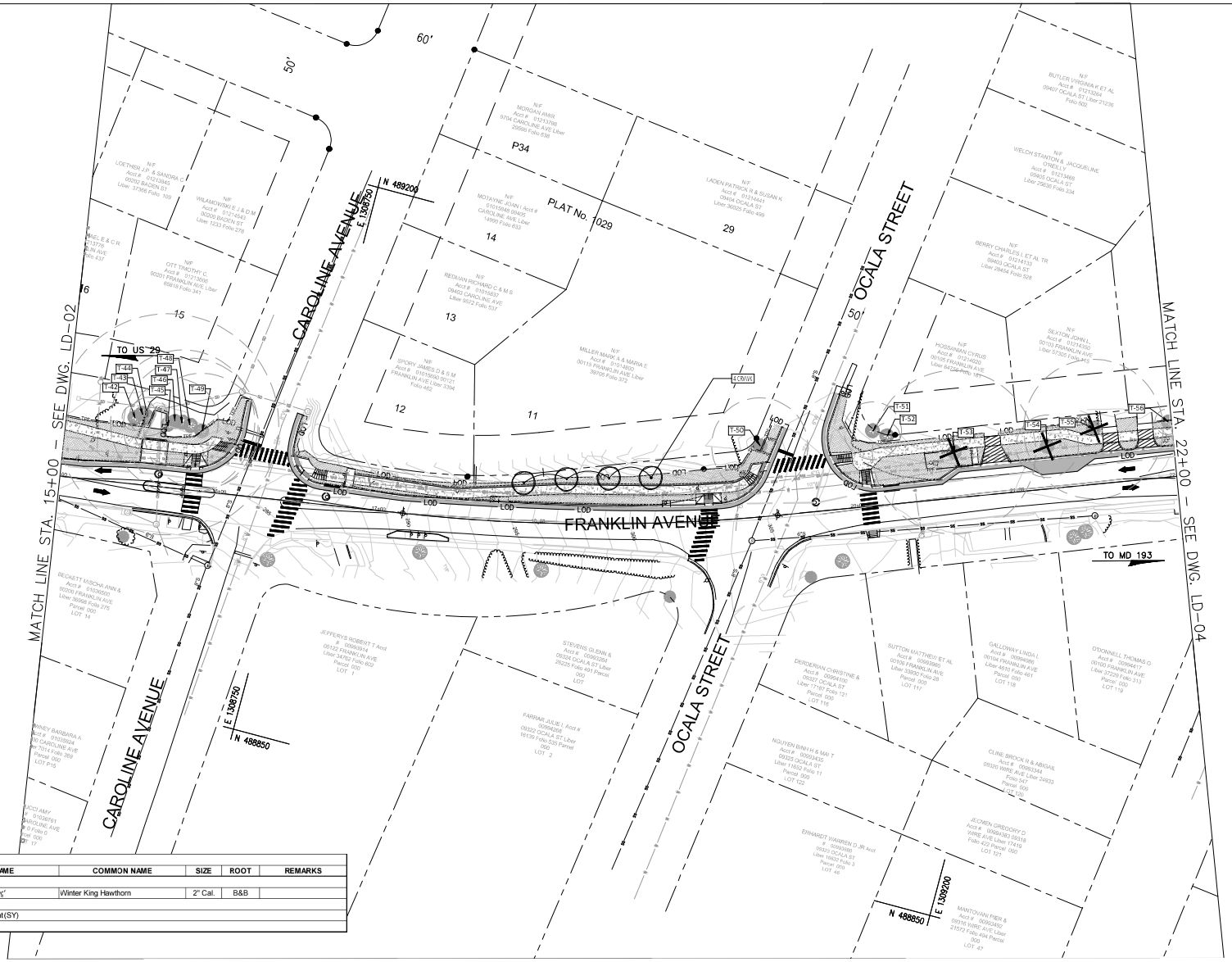
LD – 02

Project No.: TBD

78 of 109

FILE:

SHEET NO.	TOTAL SHEETS
79	109



PLANT SCHEDLLE (THIS SHEET ONLY)						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
UNDERSTORY TREES						
CRVWK	4	*Crataegus viridis 'Winter King'*	Winter King Hawthorn	2" Cal.	B&B	
MISC. ITEMS/SEED MIXES						
SOD	773	Turfgrass Sod Establishment(SY)				
TPF	331	Tree Protection Fence (LF)				

LEGEND:

- UNDERSTORY TREE
- SHRUB
- STORMWATER PLANTING
- LOD — LIMIT OF DISTURBANCE
- TPF — TPF — TREE PROTECTION FENCE
- EXISTING TREE CRITICAL ROOT ZONE
- EXISTING TREE TO BE REMOVED
- TURFGRASS SOD

0 30 60
SCALE: 1" = 30'

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Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

LANDSCAPE PLAN

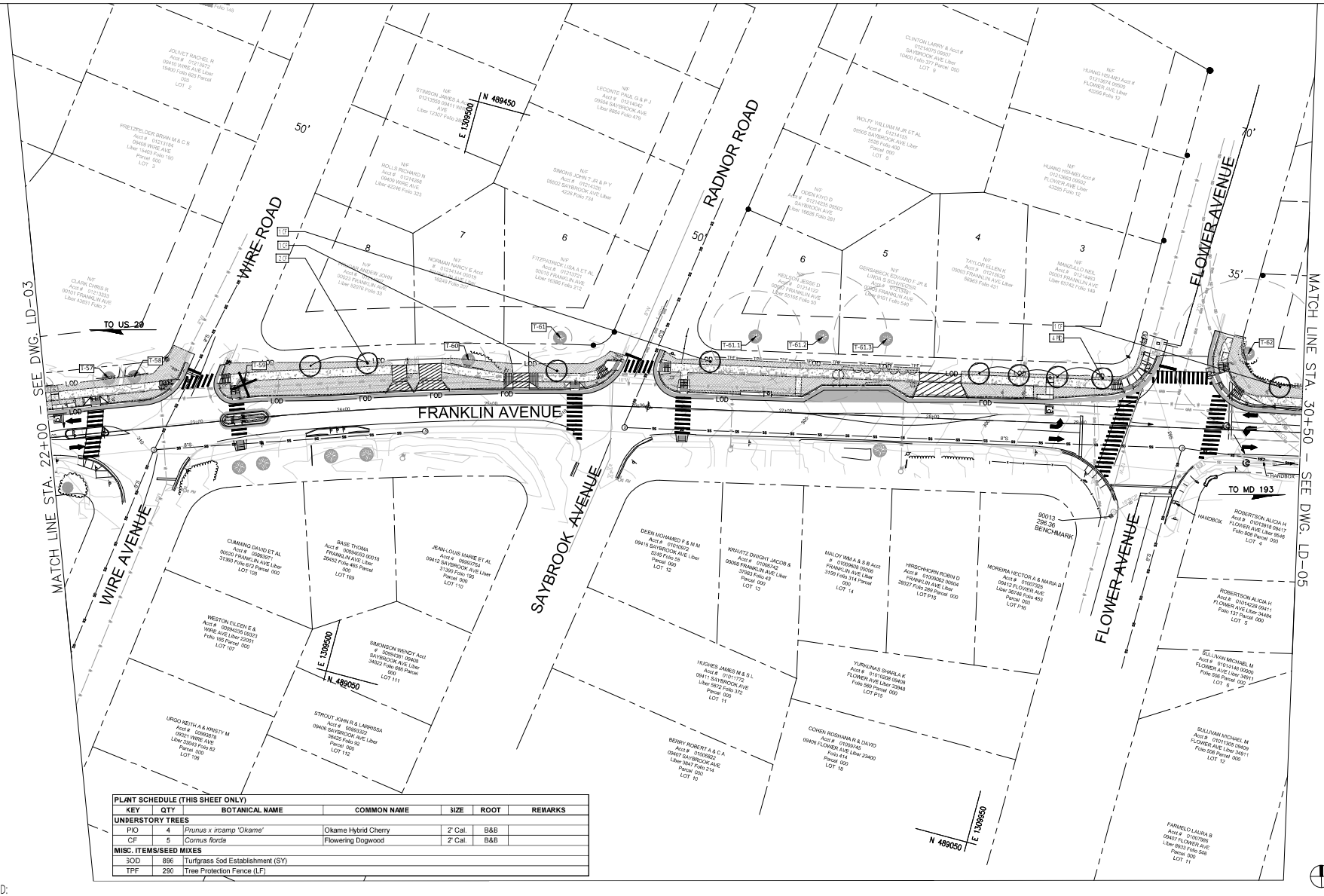
SCALE: 1" = 30'

LD – 03

Project No.: TBD 79 of 109

FILE:

SHEET NO.	TOTAL SHEETS
80	109



PLANT SCHEDULE (THIS SHEET ONLY)						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
UNDERSTORY TREES						
PIO	4	*Prunus x incamp 'Okame'*	Okame Hybrid Cherry	2" Cal.	B&B	
CF	5	*Cornus florida*	Flowering Dogwood	2" Cal.	B&B	
MISC. ITEMS/SEED MIXES						
SOD	896	Turfgrass Sod Establishment (SY)				
TPF	290	Tree Protection Fence (LF)				

LEGEND:

- UNDERSTORY TREE
- SHRUB
- STORMWATER PLANTING
- LOD — LIMIT OF DISTURBANCE
- TPF — TPF — TREE PROTECTION FENCE
- EXISTING TREE CRITICAL ROOT ZONE
- EXISTING TREE TO BE REMOVED
- TURFGRASS SOD

0 30 60
SCALE: 1" = 30'

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Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK
LANDSCAPE PLAN

SCALE : 1" = 30'

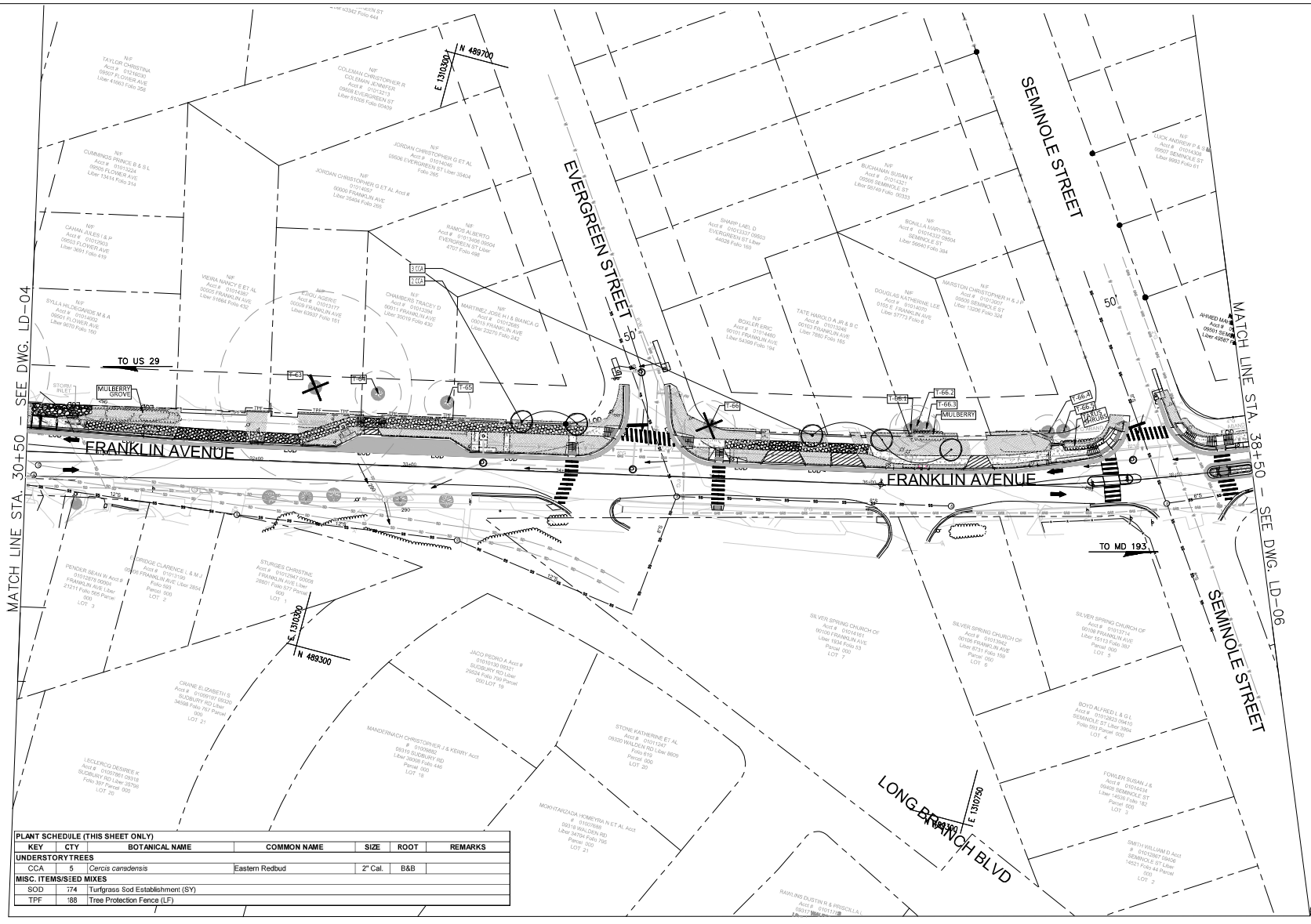
LD – 04

Project No.: TBD

80 of 109

FILE:

SHEET NO.	TOTAL SHEETS
81	109



PLANT SCHEDULE (THIS SHEET ONLY)						
KEY	CTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
UNDERSTORY TREES						
CCA	5	*Cercis canadensis*	Eastern Redbud	2" Cal.	B&B	
MISC. ITEMS/SEED MIXES						
SOD	74	Turfgrass Sod Establishment (SY)				
TPF	88	Tree Protection Fence (LF)				

LEGEND:

- UNDERSTORY TREE
- SHRUB
- STORMWATER PLANTING
- LOD — LIMIT OF DISTURBANCE
- TPF — TPF — TREE PROTECTION FENCE
- EXISTING TREE CRITICAL ROOT ZONE
- EXISTING TREE TO BE REMOVED
- TURFGRASS SOD

0 30 60
SCALE: 1" = 30'

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ROCKVILLE, MARYLAND

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Chief, Design Section — Date

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FRANKLIN AVENUE SIDEWALK
LANDSCAPE PLAN

SCALE : 1" = 30'

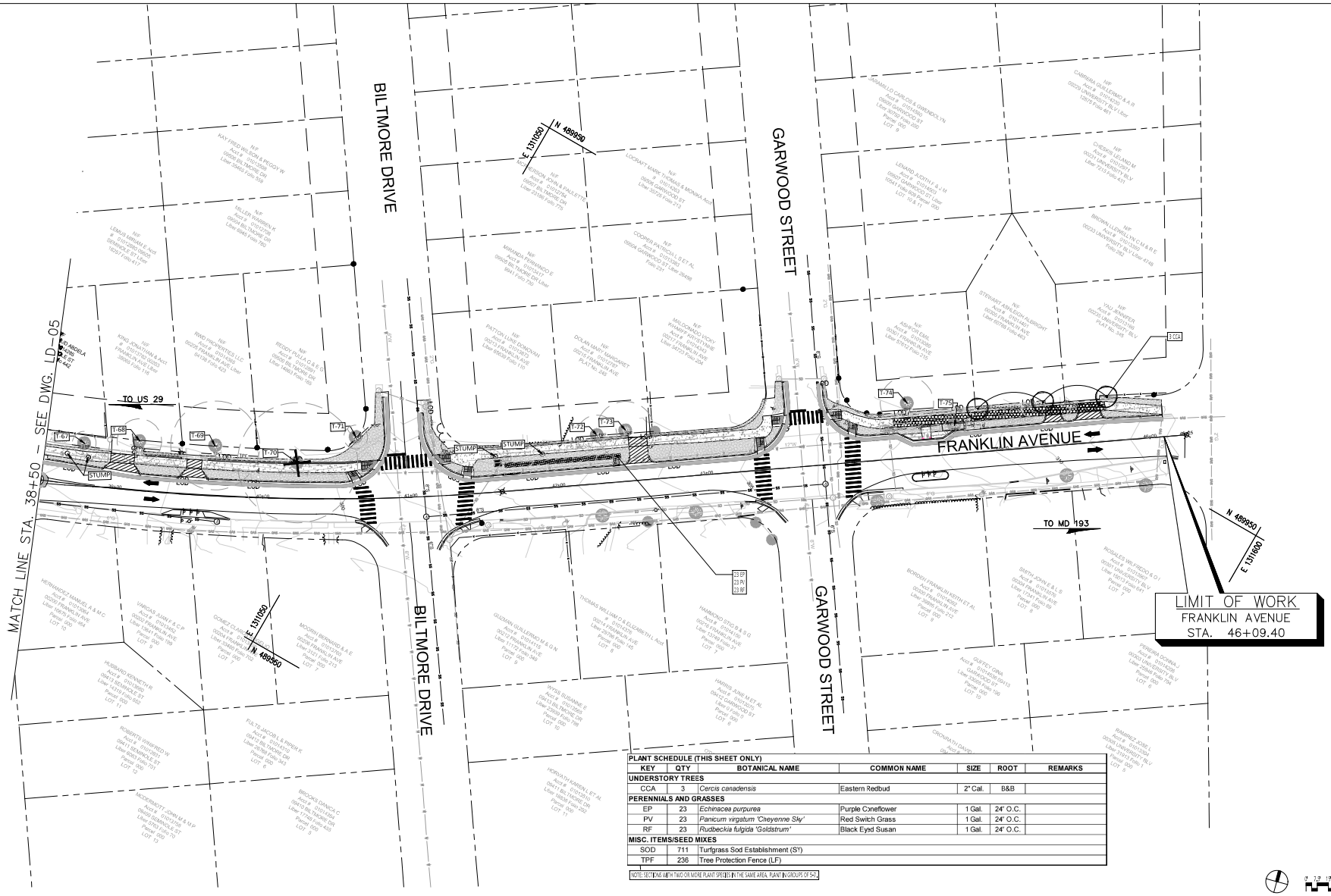
LD – 05

Project No.: TBD

81 of 109

FILE:

SHEET NO.	TOTAL SHEETS
82	109



PLANT SCHEDULE (THIS SHEET ONLY)

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
UNDERSTORY TREES						
CCA	3	*Cercis canadensis*	Eastern Redbud	2" Cal.	B&B	
PERENNIALS AND GRASSES						
EP	23	*Echinacea purpurea*	Purple Coneflower	1 Gal.	24" O.C.	
PV	23	*Panicum virgatum 'Cheyenne Sky'*	Red Switch Grass	1 Gal.	24" O.C.	
RF	23	*Rudbeckia fulgida 'Goldstrum'*	Black Eyed Susan	1 Gal.	24" O.C.	
MISC. ITEMS/SEED MIXES						
SOD	711	Turfgrass Sod Establishment (S1)				
TPF	236	Tree Protection Fence (LF)				

NOTE: SECTIONING WITH TWO OR MORE PLANT SPECIES IN THE SAME AREA, PLANT IN GROUPS OF 5-7.

LEGEND:

- UNDERSTORY TREE
- SHRUB
- STORMWATER PLANTING
- LOD — LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE
- EXISTING TREE CRITICAL ROOT ZONE
- EXISTING TREE TO BE REMOVED
- TURFGRASS SOD

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
10420 Stony Grove Road, Rockville, MD 20850
Phone: 301-990-3939 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

LANDSCAPE PLAN

SCALE : 1" = 30'

LD – 06

Project No.: TBD

82 of 109

FILE:

GENERAL PLANTING NOTES:

1.CONTRACTOR MUST CONTACT MISS UTILITY TO LOCATE ALL EXISTING UTILITIES AND PROVIDE PROOF AND WRITTEN CONFIRMATION FOR UTILITY LOCATION TO M-NCPPC. CONTRACTOR TO PROVIDE NOTICE TO UTILITY COMPANIES PRIOR TO BEGINNING ANY WORK.

2.IN SOME INSTANCES THE TREE PROTECTION FENCE IS SHOWN OUTSIDE OF THE LIMIT OF DISTURBANCE FOR GRAPHIC PURPOSES ONLY. THE CONTRACTOR SHALL INSTALL TREE PROTECTION FENCE AT THE LIMIT OF DISTURBANCE LINE WHERE THIS OCCURS.

3.THE CONTRACTOR SHALL FLAG ALL TREES TO BE REMOVED FOR INSPECTION AND APPROVAL BY THE LANDSCAPE ARCHITECT OR COUNTY ARBORIST AT THE PRE-CONSTRUCTION MEETING. NO CLEARING SHALL OCCUR UNTIL INSPECTION AND APPROVAL HAS BEEN PROVIDED IN WRITING.

4.PLANT MATERIAL TYPES AND SIZES MAY VARY DUE TO MARKET AVAILABILITY AT TIME OF CONSTRUCTION, ANY SUBSTITUTIONS ARE TO BE OF EQUIVALENT TYPE AND SIZE, AND MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT. FOR SHRUB CONTAINERIZED STOCK, B&B STOCK MAY BE SUBSTITUTED WITH WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT.

5.WHERE THE CONDITION EXISTS THAT B&B TREES ARE DELIVERED IN WIRE BASKETS, THE WIRE BASKETS SHALL BE CUT DOWN THE SIDE OF EACH MESH AND PEELED AWAY FROM THE ROOTBALL OR REMOVED IN ENTIRETY. NO PORTION OF THE WIRE BASKET SHALL REMAIN INTACT AROUND THE SIDES OF THE ROOTBALL OR EXTEND ABOVE FINISHED GRADE.

6.ALL WORK SHALL BE IN COMPLIANCE WITH MARYLAND DEPARTMENT OF TRANPORTATION STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.

7.PLANTING SHALL ONLY OCCUR DURING ESTABLISHED PLANTING SEASONS:
A.DECIDUOUS AND EVERGREEN TREES AND SHRUBS: OCTOBER 15 - APRIL 15

8.DISTURBANCE SHALL BE LIMITED TO ONLY THE AREA OF WORK THAT CAN BE COMPLETED IN ONE DAY. NO EXPOSED PLANTING PITS SHALL BE EXPOSED OVERNIGHT.

9.PLANTS SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1, LATEST EDITION, AMERICAN NURSERY & LANDSCAPE ASSOCIATION. PLANTS SHALL BE INSPECTED BY LANDSCAPE ARCHITECT OR COUNTY ARBORIST FOR QUALITY AND COMPLIANCE PRIOR TO INSTALLATION.

10.ALL INDIVIDUAL TREES SHALL RECEIVE A 2" MIN. LAYER OF SHREDDED HARDWOOD MULCH TO COVER THE ENTIRE EXCAVATED AREA OF THE PLANT PIT.

11.ALL PLANTINGS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A TWO-YEAR MAINTENANCE PERIOD.

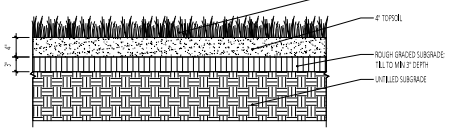
12.ALL AREAS DISTURBED DURING CONSTRUCTION ARE TO BE SODDED UNLESS NOTED OTHERWISE.

13. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ANY WASTE FROM THE SITE.

14. ANY DAMAGE TO THE EXISTING UTILITIES, BUILDINGS, PAVING, CURB, WALLS, AND VEGETATION (NOT SO DESIGNATED FOR REMOVAL ON THESE PLANS) SHALL BE REPAIRED TO PREVIOUS CONDITION OR REPLACED BY THE CONTRACTOR AT HIS EXPENSE.

MASTER LANDSCAPE PLANT SCHEDULE

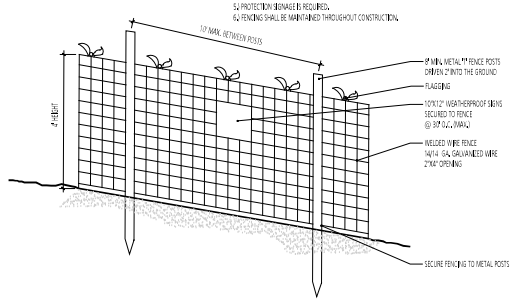
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
UNDERSTORY TREES						
CRVWK	4	*Crataegus viridis 'Winter King'*	Winter King Hawthorn	2" Cal.	B&B	
CCA	11	*Cercis canadensis*	Eastern Redbud	2" Cal.	B&B	
CF	7	*Cornus florida*	Flowering Dogwood	2" Cal.	B&B	
PIO	4	*Prunus x incamp 'Okame'*	Okame Hybrid Cherry	2" Cal.	B&B	
SHRUBS						
LB	5	*Lindera benzoin var. benzoin*	Spicebush	36"Ht.	#7 CONT.	
PERENNIALS AND GRASSES						
EP	23	*Echinacea purpurea*	Purple Coneflower	1 Gal.	24" O.C.	
PV	23	*Panicum virgatum 'Cheyenne Sky'*	Red Switch Grass	1 Gal.	24" O.C.	
RF	23	*Rudbeckia fulgida 'Goldstrum'*	Black Eyed Susan	1 Gal.	24" O.C.	
MSC. ITEM/SEED MIXES						
SOD	4,531	Turfgrass Sod Establishment (S*)				
TPF	2,093	Tree Protection Fence (LF)				



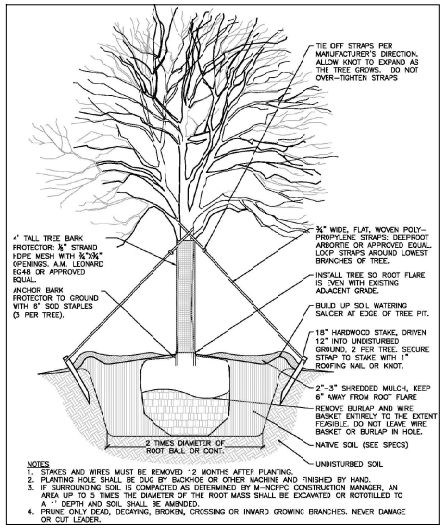
LAWN SEEDING PREPARATION NOTES:
1. ROTOTILL SUBGRADE TO A DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.
2. FINE GRADE AREA PRIOR TO SOD INSTALLATION.
3. PROTECT SODDED AREAS FROM SUBSEQUENT CONSTRUCTION ACTIVITY.

1 LAWN DETAIL - SOD (TYP.)
SECTION
d-lawn detail sod.dwg
SCALE: 1" = 1'-0"

NOTES
1.) PRACTICE MAY BE COMBINED WITH SEDIMENT CONTROL FENCING.
2.) LOCATION AND LIMITS OF FENCING AND TREE ROOT PRUNING SHOULD BE COORDINATED IN FIELD WITH ARBORIST.
3.) BOUNDARIES OF PROTECTION AREA SHOULD BE STAKED PRIOR TO INSTALLING PROTECTIVE DEVICE.
4.) ROOT DAMAGE SHOULD BE AVOIDED.
5.) PROTECTION DENAGE IS REQUIRED.
6.) FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.



2 TREE PROTECTION FENCE - MONTGOMERY COUNTY
DETAIL
d-TPF.dwg
SCALE: 1" = 1'-0"



NOTES
1. STAKES AND WIRES MUST BE REMOVED 12 MONTHS AFTER PLANTING.
2. PLANTING HOLE SHALL BE DUG BY BACKHOE OR OTHER MACHINE AND FINISHED BY HAND.
3. IF SURROUNDING SOIL IS COMPACTED AS DETERMINED BY M-NCPPC CONSTRUCTION MANAGER, AN AREA UP TO 5 TIMES THE DIAMETER OF THE ROOT MASS SHALL BE EXCAVATED OR ROTOTILLED TO A 1' DEPTH AND SOIL SHALL BE AMENDED.
4. PRUNE ONLY DEAD, DECAYING, BROKEN, CROSSING OR INWARD GROWING BRANCHES. NEVER DAMAGE OR CUT LEADER.

3 TREE PLANTING DETAIL
SECTION
d-tree_planting.dwg
SCALE: NTS

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
10420 Stony Grove Road, Rockville, MD 20850
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK
LANDSCAPE NOTES AND DETAILS

SCALE :
LD - 07
Project No. : ____ 83 of 109

FILE:

SYMBOL/ NO.	BOTANICAL NAME	COMMON NAME	SIZE (DBH)	CONDITION	PROPOSED CONDITION	PROPOSED RECOMMENDATION	COMMENTS	Within ROW?	ADDRESS	
1	*Quercus rubra*	Red Oak	18	Fair	Protection Place	Tree Protection Fencing	In Fence	No	BHANDARI CHETNATH, 9401 Colesville Rd	Silver Spring, MD 20910
2		Dead		Dead				No	BHANDARI CHETNATH, 9401 Colesville Rd	Silver Spring, MD 20910
3	*Quercus rubra*	Red Oak	6	Fair	Protection Place	Tree Protection Fencing		No	BHANDARI CHETNATH, 9401 Colesville Rd	Silver Spring, MD 20910
4	*Morus alba*	White Mulberry	3	Poor	Protection Place	Tree Protection Fencing	Poor Form	Yes	BHANDARI CHETNATH, 9401 Colesville Rd	Silver Spring, MD 20910
5	*Prunus avium*	Sweet Cherry	2	Poor	Protection Place	Tree Protection Fencing		No	BHANDARI CHETNATH, 9401 Colesville Rd	Silver Spring, MD 20910
6	*Quercus rubra*	Red Oak	9	Fair	Protection Place	Tree Protection Fencing		No	BHANDARI CHETNATH, 9401 Colesville Rd	Silver Spring, MD 20910
7		Dead		Dead				No	BHANDARI CHETNATH, 9401 Colesville Rd	Silver Spring, MD 20910
8	*Quercus rubra*	Red Oak	22	Poor	Protection Place	Tree Protection Fencing	Poor form, 3 Multi Stem	No	BHANDARI CHETNATH, 9401 Colesville Rd	Silver Spring, MD 20910
9	*Ulmus americana*	American Elm	16	Fair	Protection Place	Tree Protection Fencing	8 Multi Stem	No	DIAMENA LETICIA & VICTOR, 9300 Worth Ave	Silver Spring, MD 20910
10	*Prunus serrulata*	Japanese Cherry	13	Fair	Protection Place	Tree Protection Fencing	Multi Stem	No	DIAMENA LETICIA & VICTOR, 9300 Worth Ave	Silver Spring, MD 20910
11	*Cercis canadensis*	Redbud	9	Good	Remove		5 Stem Multi Stem	Yes	SPORY SHIRLEY WHITAL, 323 Franklin Ave	Silver Spring, MD 20910
12	*Cercis canadensis*	Redbud	9	Fair	Remove		Poor Form	Yes	SPORY SHIRLEY WHITAL, 323 Franklin Ave	Silver Spring, MD 20910
13	*Ilex sp.*	Holly	9	Good	Protection Place	Tree Protection Fencing		No	DENNISTON ALAN R ETAL, 317 Franklin Ave	Silver Spring, MD 20910
14	*Lagerstroemia sp.*	Crape Myrtle	4-5"	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing	5 Stem Multi Stem	Yes	DENNISTON ALAN R ETAL, 317 Franklin Ave	Silver Spring, MD 20910
15	*Cornus florida*	American Dogwood	6	Good	Protection Place	Tree Protection Fencing	3 Stem Multistem	No	DENNISTON ALAN R ETAL, 317 Franklin Ave	Silver Spring, MD 20910
16	*Lagerstroemia sp.*	Crape Myrtle	2-4"	Good	Protection Place	Tree Protection Fencing	10 Stem Multistem	No	DENNISTON ALAN R ETAL, 317 Franklin Ave	Silver Spring, MD 20910
17	*Acer ginnala*	Amur Maple	9	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	SOLAND SILVANA T ETAL, 315 Franklin Ave	Silver Spring, MD 20910
18	*Amelanchier sp.*	Serviceberry	4	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	SOLAND SILVANA T ETAL, 315 Franklin Ave	Silver Spring, MD 20910
19	*Viburnum sp.*	Viburnum	4	Fair	Protection Place	Tree Protection Fencing	Multi Stem	No	SOLAND SILVANA T ETAL, 315 Franklin Ave	Silver Spring, MD 20910
20	*Cercis canadensis*	Redbud	4	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	SOLAND SILVANA T ETAL, 315 Franklin Ave	Silver Spring, MD 20910
21	*Cornus kousa*	Kousa Dogwood	3	Poor	Protection Place	Air Excavation of roots, Tree Protection Fencing	Multi Stem	Yes	WILBERT M CECILIA, 311 Franklin Ave	Silver Spring, MD 20910
22	*Acer ginnala*	Amur Maple	7	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	WILBERT M CECILIA, 311 Franklin Ave	Silver Spring, MD 20910
23	*Prunus angustifolia*	Sand Plum	1-2"	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing	5 Stem Multi Stem	Yes	WILBERT M CECILIA, 311 Franklin Ave	Silver Spring, MD 20910
24	*Prunus sp.*	Cherry	15	Fair	Protection Place	Tree Protection Fencing		No	STERNBURG KIRA S, 307 Franklin Ave	Silver Spring, MD 20910
25	*Cornus kousa*	Kousa Dogwood	4	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	STERNBURG KIRA S, 307 Franklin Ave	Silver Spring, MD 20910
26	*Prunus angustifolia*	Sand Plum	1-2"	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing	5 Stem Multi Stem	Yes	STERNBURG KIRA S, 307 Franklin Ave	Silver Spring, MD 20910
27	*Ulmus americana*	American Elm	5-6"	Fair	Protection Place	Tree Protection Fencing	3 Stem Multistem	No	DAWSON ERVIN W, 306 Leighton Ave	Silver Spring, MD 20910
28	*Prunus serotina*	Black Cherry	4-6"	Fair	Protection Place	Tree Protection Fencing	2 Stem	No	DAWSON ERVIN W, 306 Leighton Ave	Silver Spring, MD 20910
29	*Liriodendron tulipifera*	Tulip Poplar	48	Fair	Protection Place	Tree Protection Fencing	Crown dieback	No	DAWSON ERVIN W, 306 Leighton Ave	Silver Spring, MD 20910
30		Dead		Dead				No	DAWSON ERVIN W, 306 Leighton Ave	Silver Spring, MD 20910
31	*Cornus florida*	American Dogwood	4	Fair	Protection Place	Tree Protection Fencing		Yes	DAWSON ERVIN W, 306 Leighton Ave	Silver Spring, MD 20910
32	*Ulmus americana*	American Elm	11	Fair	Protection Place	Tree Protection Fencing	Vines	Yes	BUCKLEY-LARCCI JIE CAROLYN, 301 Leighton Ave	Silver Spring, MD 20910
33	*Ilex opaca*	American Holly	14	Fair	Protection Place	Tree Protection Fencing		Yes	BUCKLEY-LARCCI JIE CAROLYN, 301 Leighton Ave	Silver Spring, MD 20910
34	*Cornus sp.*	Dogwood	7	Good	Protection Place	Tree Protection Fencing		No	WILLIAMS DEBORAH S, 215 Franklin Ave	Silver Spring, MD 20910
35	*Quercus acutissima*	Sawtooth Oak	15	Fair	Remove			Yes	DEVALIA SHEILA R, 213 Franklin Ave	Silver Spring, MD 20910
36	*Quercus acutissima*	Sawtooth Oak	16	Fair	Remove			Yes	DEVALIA SHEILA R, 213 Franklin Ave	Silver Spring, MD 20910
37	*Ilex opaca*	Holly	15	Fair	Protection Place	Tree Protection Fencing	2 Stem	No	DEVALIA SHEILA R, 213 Franklin Ave	Silver Spring, MD 20910
38	*Ilex opaca*	Holly	11" x 2	Fair	Protection Place	Tree Protection Fencing	2 Stem	No	DEVALIA SHEILA R, 213 Franklin Ave	Silver Spring, MD 20910
39	*Lagerstroemia sp.*	Crape Myrtle	2-4"	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing	6 Stem	Yes	REYES JOSEPH M ETAL, 209 Franklin Ave	Silver Spring, MD 20910
40	*Acer rubrum*	Red Maple	16	Poor	Remove			Yes	LEWIS HFREDERICK & MA, 205 Franklin Ave	Silver Spring, MD 20910
41	*Acer rubrum*	Red Maple	18	Poor	Remove			Yes	LEWIS HFREDERICK & MA, 205 Franklin Ave	Silver Spring, MD 20910
42		Evergreen shrub	4	Poor	Protection Place	Tree Protection Fencing	Vines	Yes	GAUGHAN JOHN V & MP, 201 Franklin Ave	Silver Spring, MD 20910
43	*Juniperus virginiana*	Cedar	4	Poor	Protection Place	Tree Protection Fencing	Vines	Yes	GAUGHAN JOHN V & MP, 201 Franklin Ave	Silver Spring, MD 20910
44	*Juniperus virginiana*	Cedar	8	Fair	Protection Place	Tree Protection Fencing		Yes	GAUGHAN JOHN V & MP, 201 Franklin Ave	Silver Spring, MD 20910
45	*Acer saccharinum*	Silver Maple	46	Poor	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	GAUGHAN JOHN V & MP, 201 Franklin Ave	Silver Spring, MD 20910
46	*Acer saccharinum*	Silver Maple	18	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	GAUGHAN JOHN V & MP, 201 Franklin Ave	Silver Spring, MD 20910
47	*Acer saccharinum*	Silver Maple	30	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	GAUGHAN JOHN V & MP, 201 Franklin Ave	Silver Spring, MD 20910
48	*Acer saccharinum*	Silver Maple	28	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	GAUGHAN JOHN V & MP, 201 Franklin Ave	Silver Spring, MD 20910
49	*Acer saccharinum*	Silver Maple	24	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	GAUGHAN JOHN V & MP, 201 Franklin Ave	Silver Spring, MD 20910
50	*Magnolia grandiflora*	Southern Magnolia	20	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	LADEN PATRICK R & SUSAN K, 115 Franklin Ave	Silver Spring, MD 20910
51	*Cornus sp.*	Dogwood	12	Good	Protection Place	Tree Protection Fencing		No	BECK FREDRICK A ETAL, 105 Franklin Ave	Silver Spring, MD 20910
52	*Malus sp.*	Apple	1	Good	Protection Place	Tree Protection Fencing	Newly Planted	No	BECK FREDRICK A ETAL, 105 Franklin Ave	Silver Spring, MD 20910
53	*Quercus rubra*	Red Oak	34	Fair	Remove		Poor form, Powerlines	Yes	BECK FREDRICK A ETAL, 105 Franklin Ave	Silver Spring, MD 20910
54	*Celtis occidentalis*	Hackberry	13	Fair	Remove		Powerlines, Poor form	Yes	WERNER ROBERT & ELUV TR, 103 Franklin Ave	Silver Spring, MD 20910
55	*Morus alba*	Mulberry	29/22	Fair	Remove			Yes	WERNER ROBERT & ELUV TR, 103 Franklin Ave	Silver Spring, MD 20910
56	*Lagerstroemia sp.*	Crape Myrtle	2-4"	Fair	Protection Place	Tree Protection Fencing	5 Stem Multi Stem	Yes	WERNER ROBERT & ELUV TR, 103 Franklin Ave	Silver Spring, MD 20910
57	*Lagerstroemia sp.*	Crape Myrtle	7	Fair	Protection Place	Tree Protection Fencing	4 Stem	Yes	CLARK CHRISTOPHER D, 101 Franklin Ave	Silver Spring, MD 20910
58	*Lagerstroemia sp.*	Crape Myrtle	2-4"	Fair	Protection Place	Tree Protection Fencing	7 Stem	Yes	CLARK CHRISTOPHER D, 101 Franklin Ave	Silver Spring, MD 20910
59	*Juniperus virginiana*	Eastern Red Cedar	16	Fair	Remove		Powerlines, Poor form	Yes	BODIN MICHAEL F & CA, 023 Franklin Ave	Silver Spring, MD 20910
60	*Cornus sp.*	Dogwood	8	Good	Protection Place	Tree Protection Fencing		Yes	NORMAN NANCY L, 19 Franklin Ave	Silver Spring, MD 20910
61	*Prunus sp.*	Cherry	1/4"	Good	Protection Place	Tree Protection Fencing	Newly Planted where old tree was located	No	FITZPATRICK LISA A ETAL, 15 Franklin Ave	Silver Spring, MD 20910
61.1	*Acer rubrum*	Red Maple	21"	Fair	Protection Place	Tree Protection Fencing			SEMANCHIK RICHARD W, 9 Franklin Ave	Silver Spring, MD 20910
61.2	*Acer saccharinum*	Silver Maple	29"	Fair	Protection Place	Tree Protection Fencing			CHAMBERS TRACEY D, 11 Franklin Ave	Silver Spring, MD 20910
61.3	*Acer rubrum*	Red Maple	24"	Poor	Protection Place	Tree Protection Fencing			CHAMBERS TRACEY D, 11 Franklin Ave	Silver Spring, MD 20910
62	*Quercus falcata*	Southern Red Oak	34	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		No	SYLLA HILDEGARDE M & A, 9501 Flower Ave	Silver Spring, MD 20910
63	*Platanus occidentalis*	Sycamore	42	Fair	Remove		Owner requests removal	No	EIGU AGERIE, 9 Franklin Ave	Silver Spring, MD 20910
64	*Picea pungens*	Blue Spruce	10	Fair	Protection Place	Tree Protection Fencing	Vines	No	CHAMBERS TRACEY D, 11 Franklin Ave	Silver Spring, MD 20910
65	*Picea pungens*	Blue Spruce	10	Fair	Protection Place	Tree Protection Fencing		No	CHAMBERS TRACEY D, 11 Franklin Ave	Silver Spring, MD 20910
66	*Pyrus calleryana*	Bradford Pear	11	Fair	Remove			Yes	MARTIN HIGINIO J, 101 Franklin Ave	Silver Spring, MD 20910
66.1	*Morus alba*	Mulberry	9	Fair	Protection Place	Tree Protection Fencing			105 Franklin Ave	Silver Spring, MD 20910
66.2	*Cercis canadensis*	Redbud	9	Fair	Protection Place	Tree Protection Fencing			105 Franklin Ave	Silver Spring, MD 20910
66.3	*Morus alba*	Mulberry	6	Fair	Protection Place	Tree Protection Fencing			105 Franklin Ave	Silver Spring, MD 20910
66.4	*Morus alba*	Mulberry	8	Fair	Protection Place	Tree Protection Fencing			CHRISTOPHER MARSTON, 9500 Seminole St	Silver Spring, MD 20910
66.5	*Cercis canadensis*	Redbud	3	Fair	Protection Place	Tree Protection Fencing			CHRISTOPHER MARSTON, 9500 Seminole St	Silver Spring, MD 20910
67	*Morus alba*	Mulberry	2	Poor	Protection Place	Air Excavation of roots, Tree Protection Fencing	Stump regrowth	Yes	GILLIS STEPHEN C & DIANE W, 9501 Seminole St	Silver Spring, MD 20910
68	*Cornus sp.*	Dogwood	10	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	KING JONATHAN, 203 Franklin Ave	Silver Spring, MD 20910
69	*Prunus serrulata*	Japanese Cherry	20	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	REYNOLDS ALISON L ETAL, 205 Franklin Ave	Silver Spring, MD 20910
70	*Quercus falcata*	Southern Red Oak	27	Poor	Remove		Heavy ivy	Yes	REDDY PULLA G & EG, 9500 Biltmore Dr	Silver Spring, MD 20910
71	*Acer rubrum*	Red Maple	2	Fair	Protection Place	Tree Protection Fencing		Yes	REDDY PULLA G & EG, 9500 Biltmore Dr	Silver Spring, MD 20910
72	*Cornus kousa*	Kousa Dogwood	9	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		No	DOLAN MARY MARGARET, 215 Franklin Ave	Silver Spring, MD 20910
73	*Juniperus virginiana*	Red Cedar	13	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing		No	DOLAN MARY MARGARET, 215 Franklin Ave	Silver Spring, MD 20910
74	*Pinus strobus*	White Pine	12	Fair	Protection Place	Air Excavation of roots, Tree Protection Fencing		No	ANDREWS MELISSA D ETAL, 301 Franklin Ave	Silver Spring, MD 20910
75	*Cercis canadensis*	Redbud	4	Good	Protection Place	Air Excavation of roots, Tree Protection Fencing		Yes	ANDREWS MELISSA D ETAL, 301 Franklin Ave	Silver Spring, MD 20910

EXISTING TREE PROTECTION NOTES:

1. ALL EXISTING STUMPS TO BE GRIND TO 8" BELOW GRADE, AND DISPOSED OF OFF-SITE.
2. TREE PROTECTION FENCE SHALL BE PLACED AT THE LIMIT OF DISTURBANCE AND CRITICAL ROOT ZONE INTERSECTIONS.
3. TREE ROOT PRUNING SHALL BE PERFORMED AS NEEDED, DETERMINED BY LICENSED TREE EXPERT ON SITE.
4. AIR EXCAVATION OF ROOTS SHALL BE PROPOSED WITHIN THE CRITICAL ROOT ZONES OF EXISTING TREES TO REMAIN AS NEEDED, DETERMINED BY LICENSED TREE EXPERT ON SITE.
5. ROOT BARRIER GEOTEXTILE SHALL BE PROVIDED AT 20' HT, BY 30' LENGTHS, CENTERED ON ROOT-PRUNED EXISTING TREES AND PROPOSED TREES.

EXISTING TREE DISTURBANCE (1:1 MITIGATION CALCULATION):

1. EXISTING TREES TO BE REMOVED: 13 TREES
2. PROPOSED STREET TREES TO BE PLANTED(@ 1 TREES: 1 TREE REPLACEMENT): 26 TREES (2" OR 8' HT.)

Address		Trees removed	Trees to be provided
SHIRLEY M SPORY, 323 Franklin Ave	Silver Spring, MD 20901	2	3
ERVIN W DAWSON, 306 Leighton Ave	Silver Spring, MD 20901	0	2
DEVALIA SHEILA R, 213 Franklin Ave	Silver Spring, MD 20901	2	0
LEWIS H FREDERICK & N A, 205 Franklin Ave	Silver Spring, MD 20901	2	0
LADEN PATRICK R & SUSAN K, 115 Franklin Ave	Silver Spring, MD 20901	0	4
FIEDRICBECK, 105 Franklin Ave	Silver Spring, MD 20901	1	0
VERNER ROBERT & ELUV TR, 103 Franklin Ave	Silver Spring, MD 20901	2	0
BODIN MICHAEL R & C J, 023 Franklin Ave	Silver Spring, MD 20901	0	2
HILDEGARDE SYLLA, 9501 Flower Ave	Silver Spring, MD 20901	0	1
FITZPATRICK LISA A ET AL, 15 Franklin Ave	Silver Spring, MD 20901	1	1
EIGU AGERIE, 9 Franklin Ave	Silver Spring, MD 20901	1	0
RENE G PELLETIER, 7 Franklin Ave	Silver Spring, MD 20901	0	1
CARMINE DELUCA, 3 Franklin Ave	Silver Spring, MD 20901	0	2
GLADY SPARKS, L Franklin Ave	Silver Spring, MD 20901	0	2
JESE MARTINEZ, 15 Franklin Ave	Silver Spring, MD 20901	0	2
MARTIN HIGINIO J, 101 Franklin Ave	Silver Spring, MD 20901	1	1
HAROLD A TATE, 103 Franklin Ave	Silver Spring, MD 20901	0	2
REDDY PULLA G & E G, 9500 Biltmore Dr	Silver Spring, MD 20901	1	0
JOHNETTE HARTNETT, 305 Franklin Ave	Silver Spring, MD 20901	0	2
JENNIFER YAU, 235 University Blvd	Silver Spring, MD 20901	0	1
TOTALS		13	26

0 30 60

SCALE: 1" = 30'

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10820 Stony Grove Road, Rockville, MD 20850
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

EXISTING TREE LIST AND MITIGATION SCHEDULE

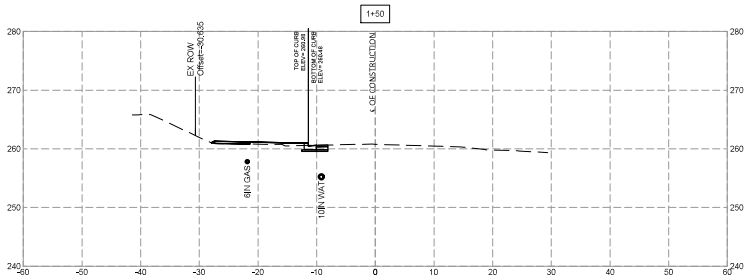
SCALE : 1

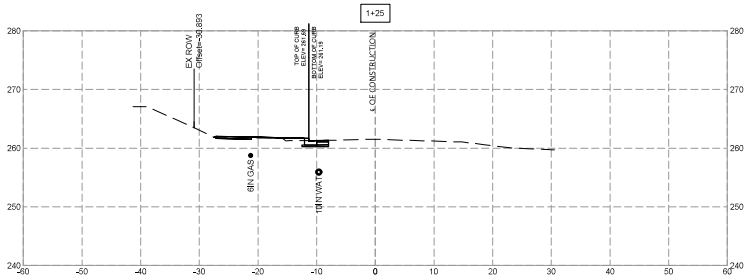
LD – 08

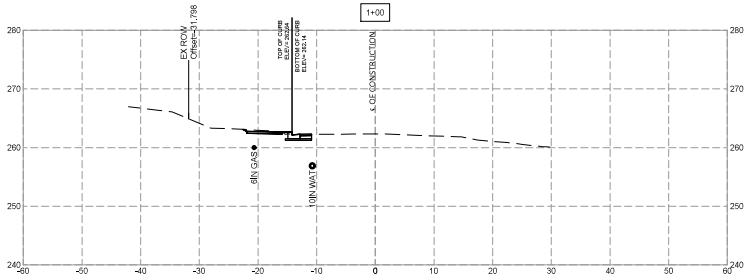
Project No.: TE

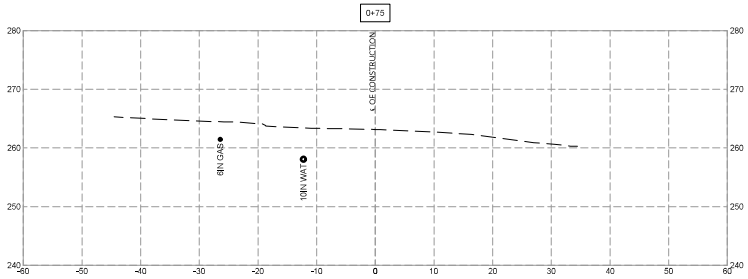
FILE:
PLOT:

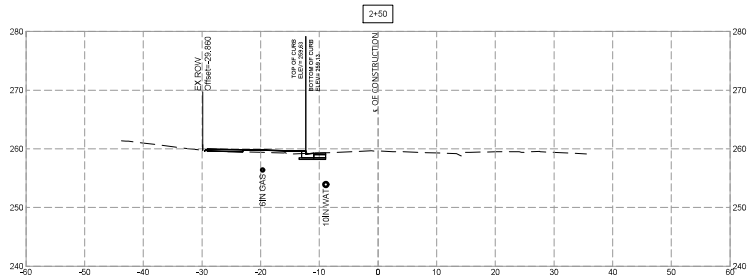
SHEET NO.	TOTAL SHEETS
85	109

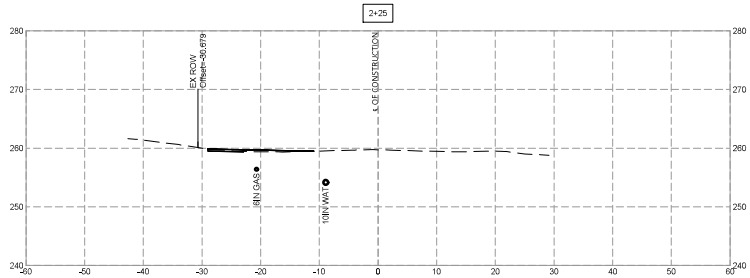


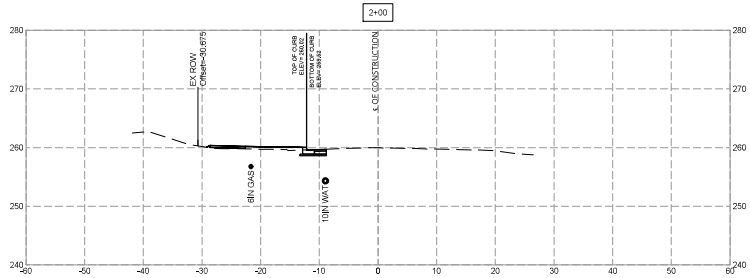


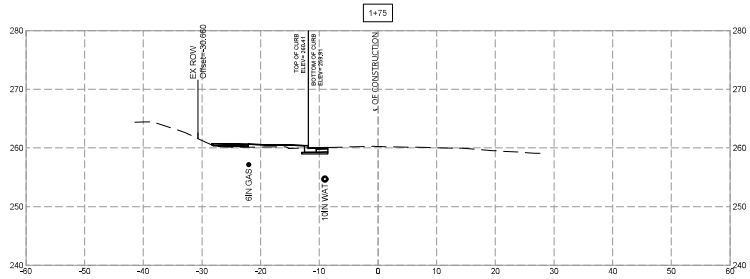












0 10 20
SCALE: 1" = 10'

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Phone: 301-208-3558 Fax: 301-948-7174
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

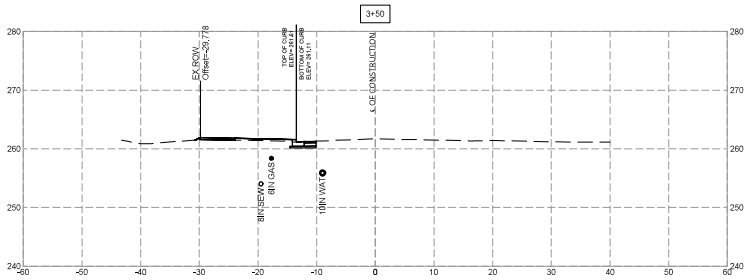
SCALE :

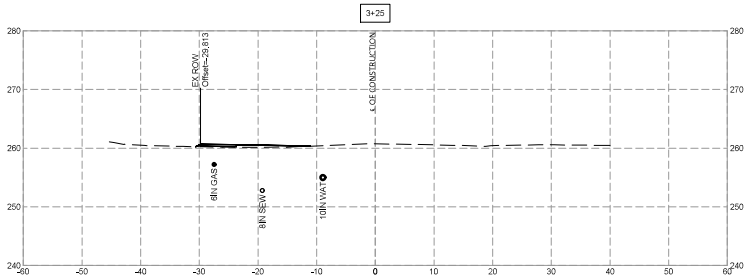
XS - 01

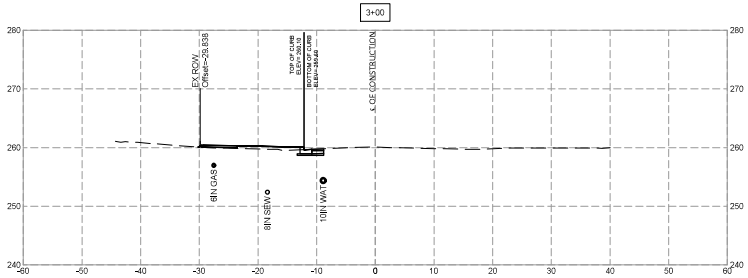
Project No.: TBD 85 of 109

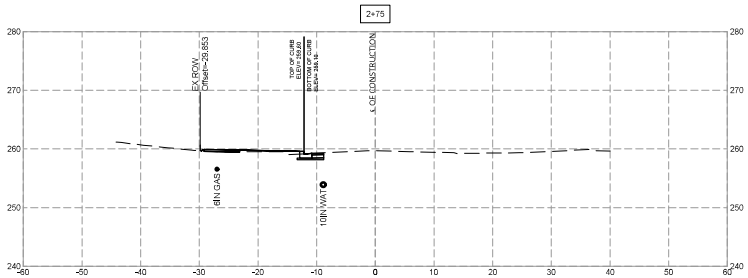
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 1:52pm

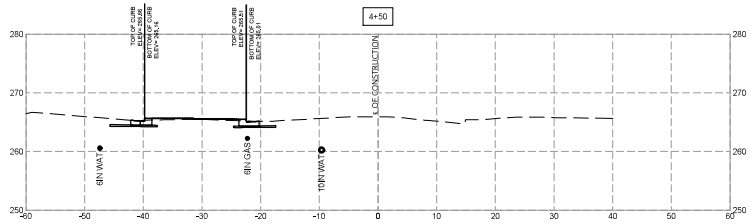
SHEET NO.	TOTAL SHEETS
86	109

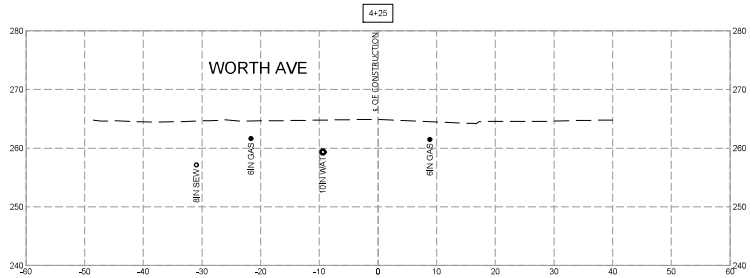


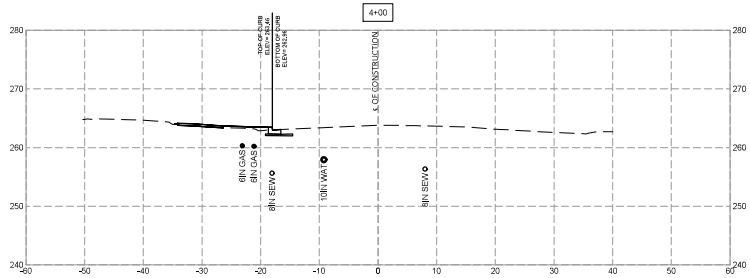


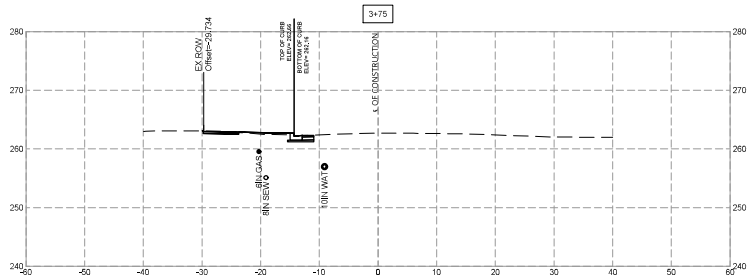












SCALE: 1" = 10'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

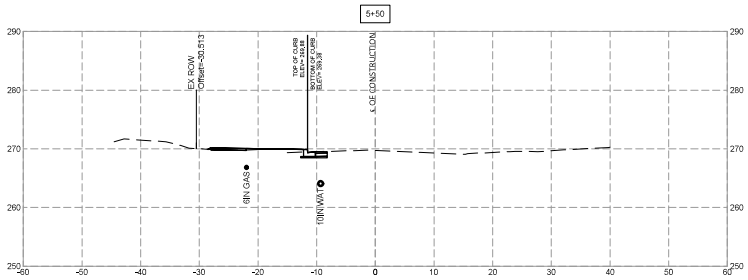
SCALE :

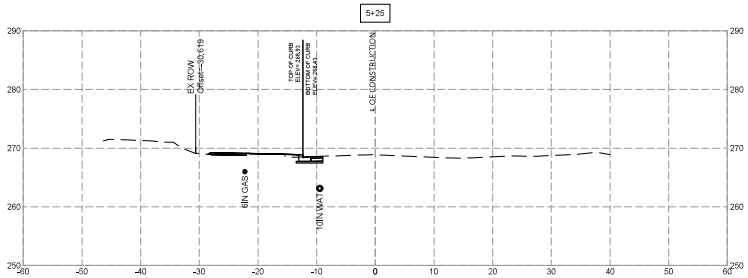
XS - 02

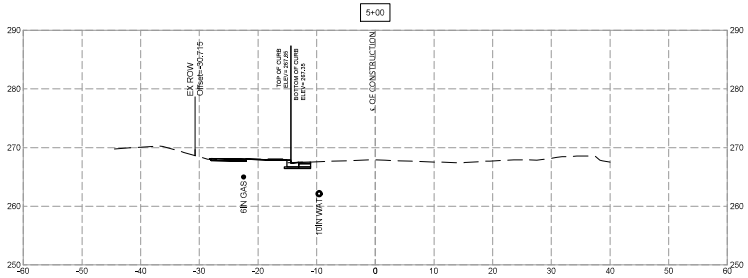
Project No.: TBD 86 of 109

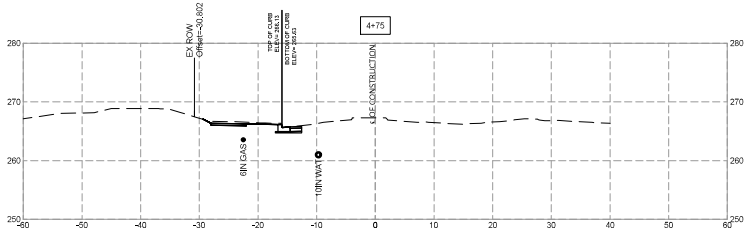
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 1:54pm

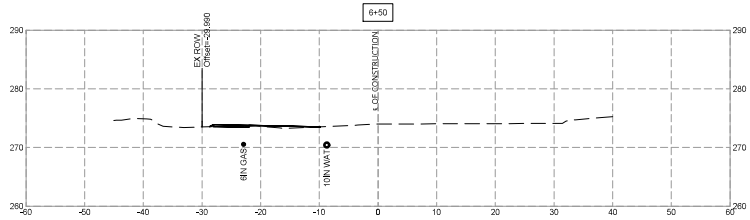
SHEET NO.	TOTAL SHEETS
87	109

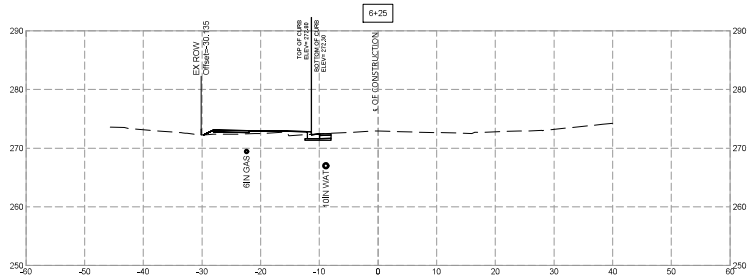


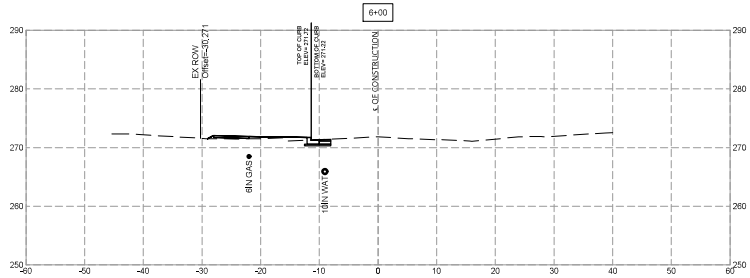


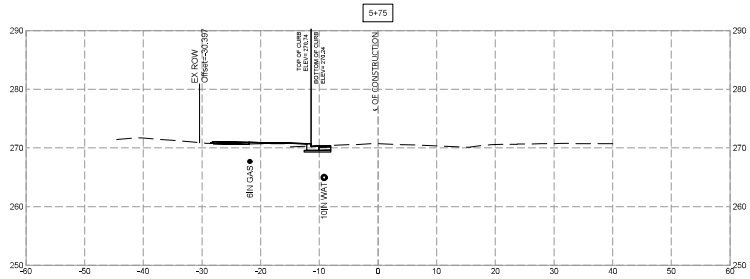












0 10 20
SCALE: 1" = 10'

Engineers, Architects
Development Consultants
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

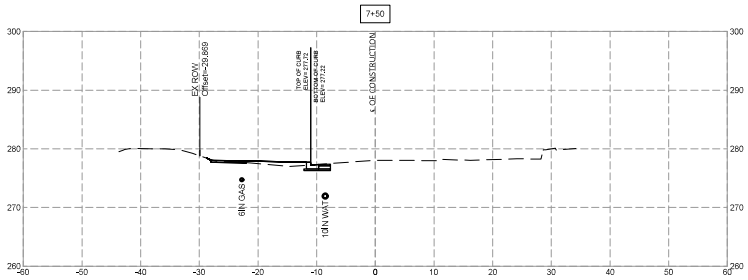
SCALE :

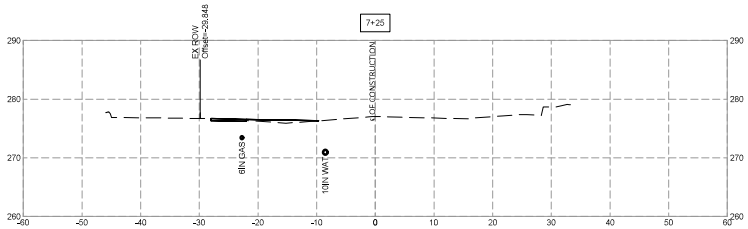
XS - 03

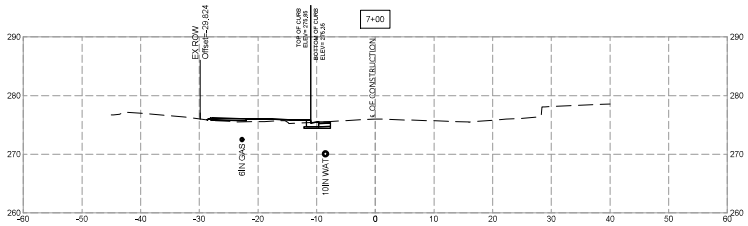
Project No.: TBD 87 of 109

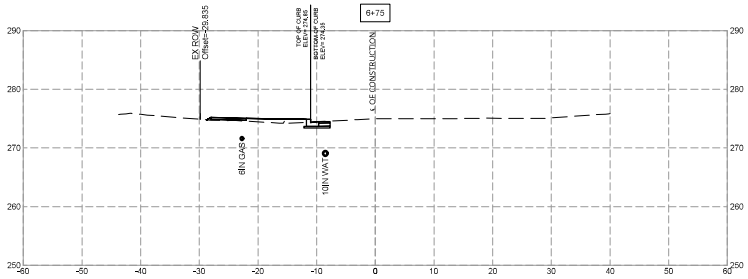
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 1:55pm

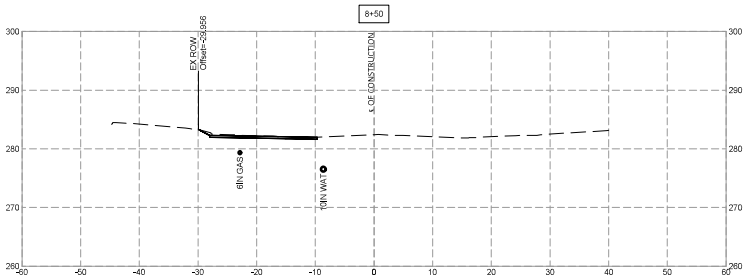
SHEET NO.	TOTAL SHEETS
88	109

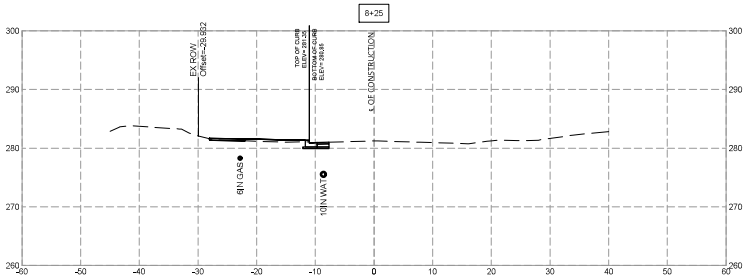


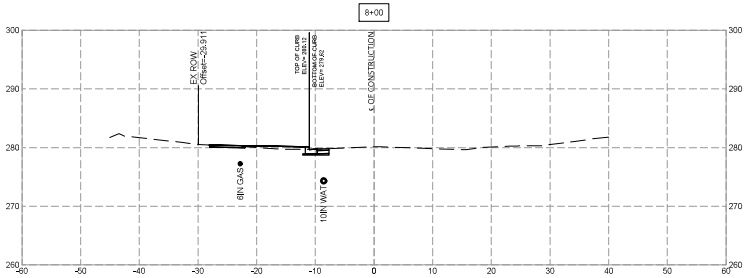


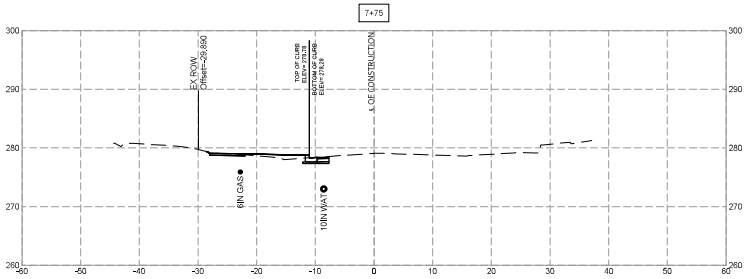












0 10 20
SCALE: 1" = 10'

Engineers, Architects
Development Consultants
SHELADIA ASSOCIATES, INC.
18879 Brady Grove Road, Rockville, MD, 20850
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

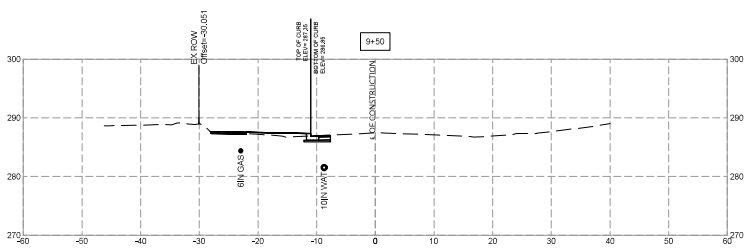
SCALE :

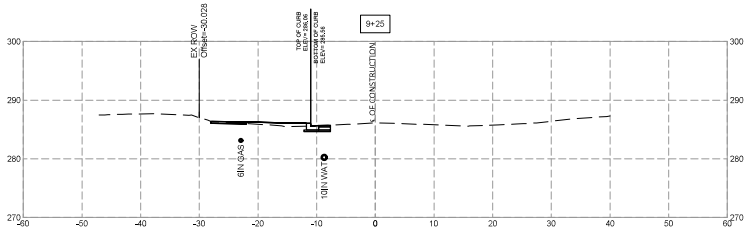
XS - 04

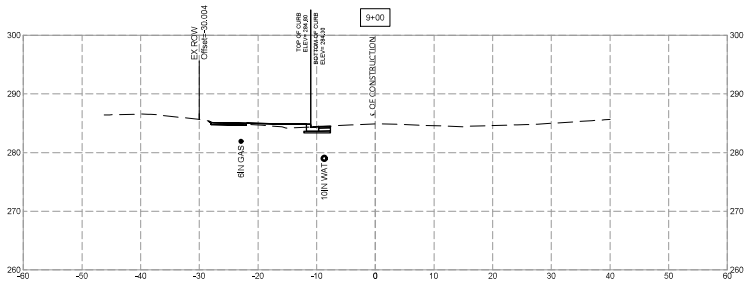
Project No.: TBD 88 of 109

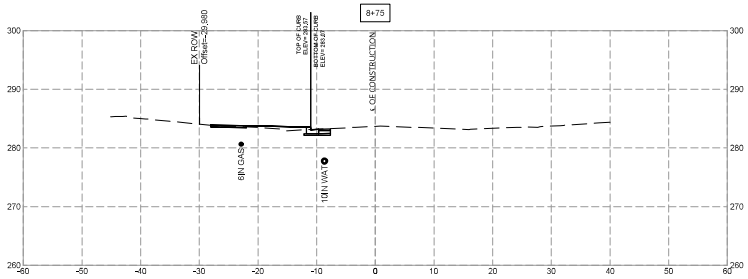
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 1:56pm

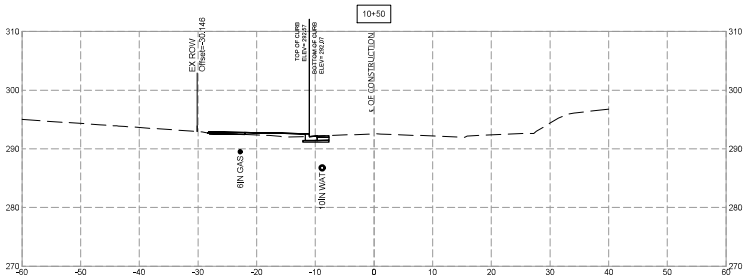
SHEET NO.	TOTAL SHEETS
89	109

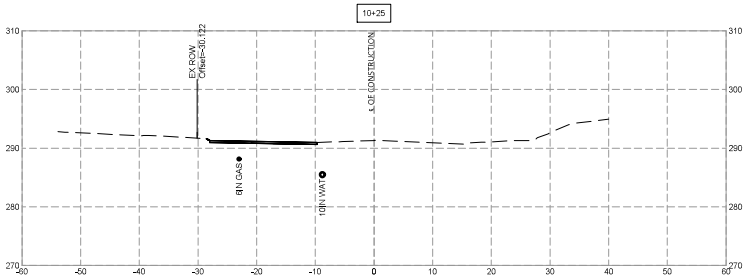


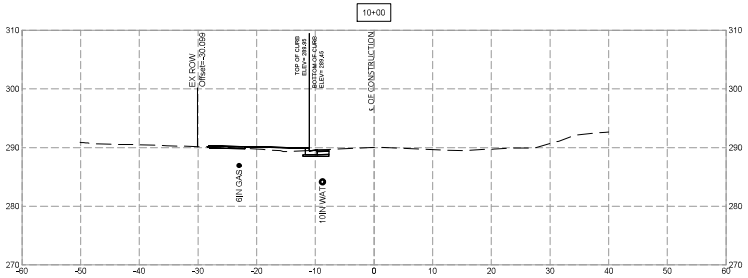


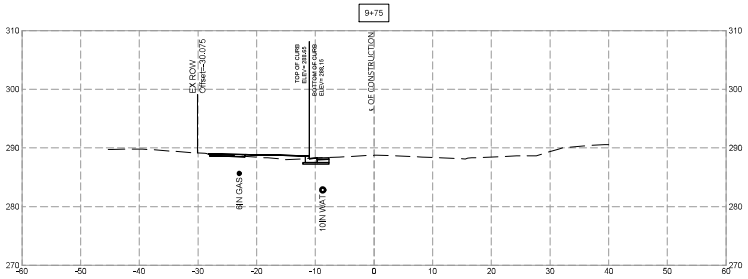












0 10 20
SCALE: 1" = 10'

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

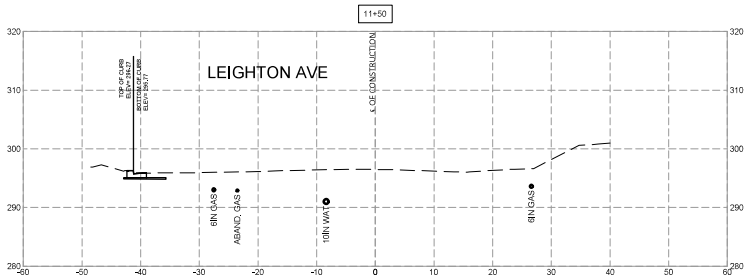
SCALE :

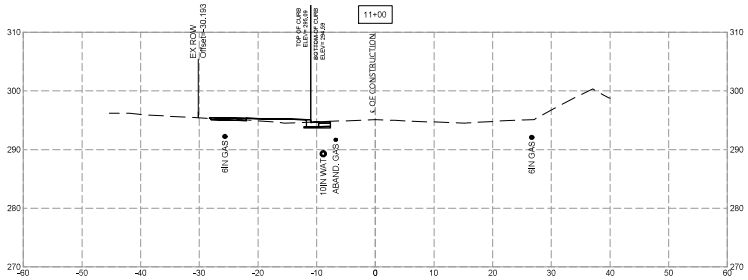
XS - 05

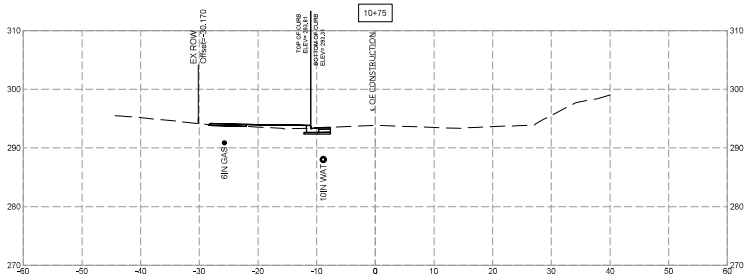
Project No.: TBD 89 of 109

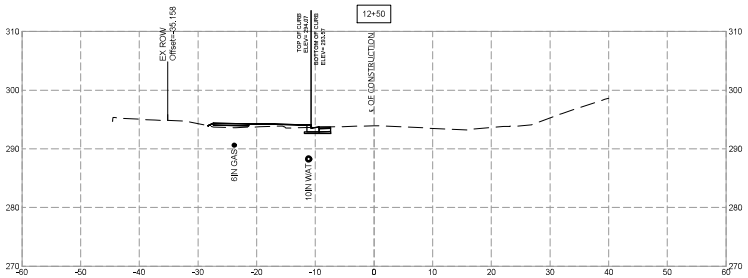
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 1:57pm

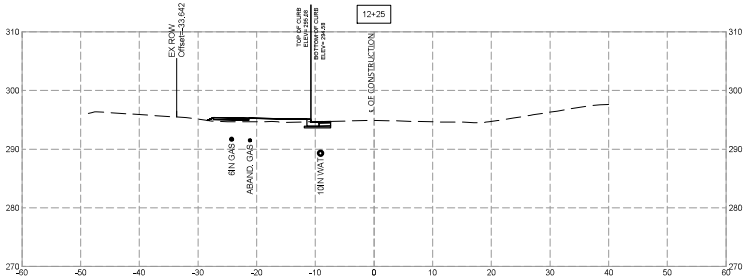
SHEET NO.	TOTAL SHEETS
90	109

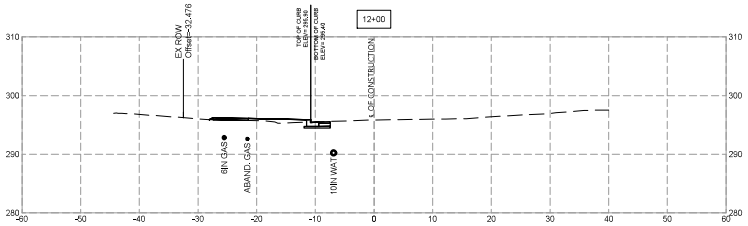


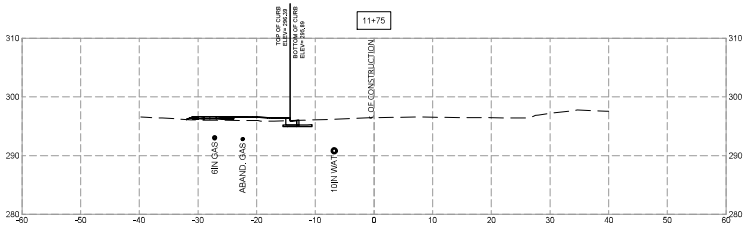












0 10 20
SCALE: 1" = 10'

Engineers, Architects
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

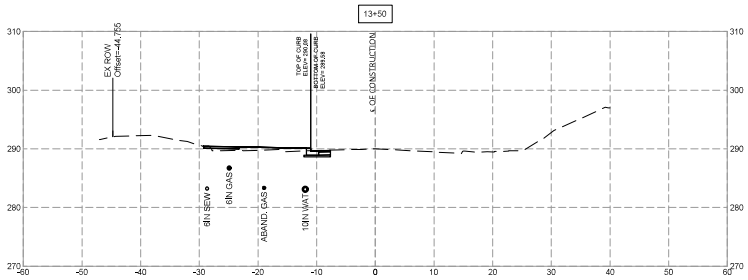
SCALE :

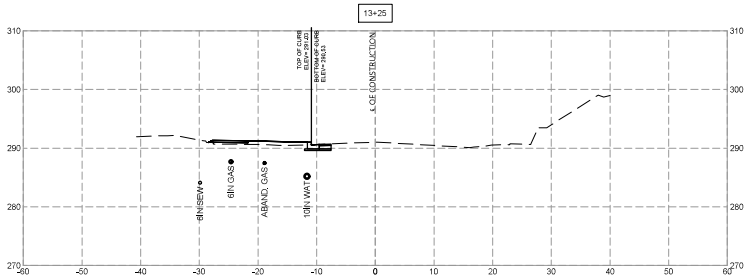
XS - 06

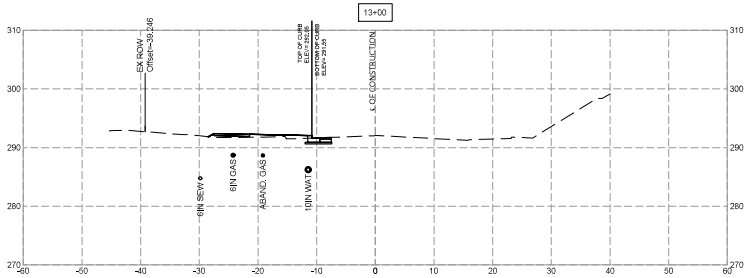
Project No.: TBD 90 of 109

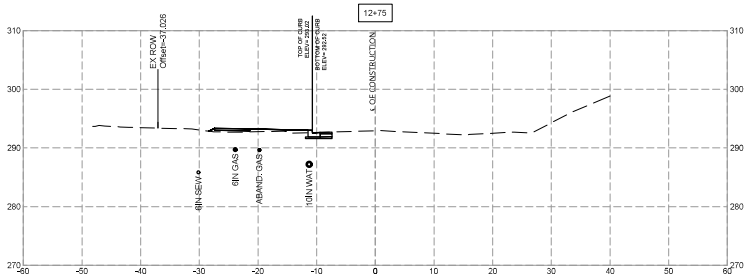
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 1:58pm

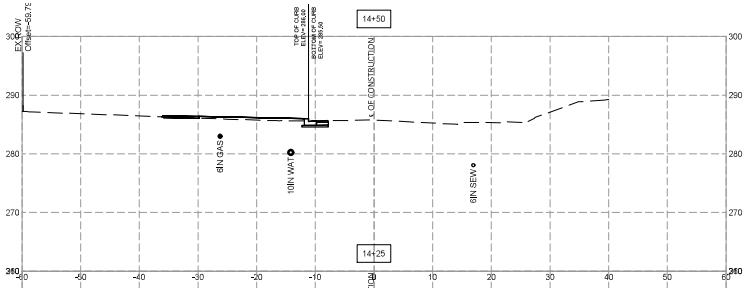
SHEET NO.	TOTAL SHEETS
91	109

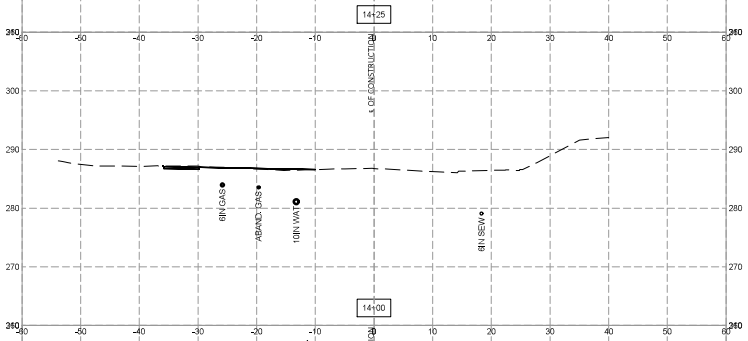


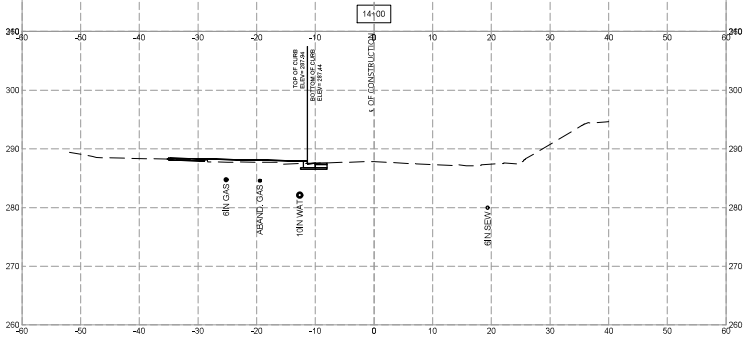


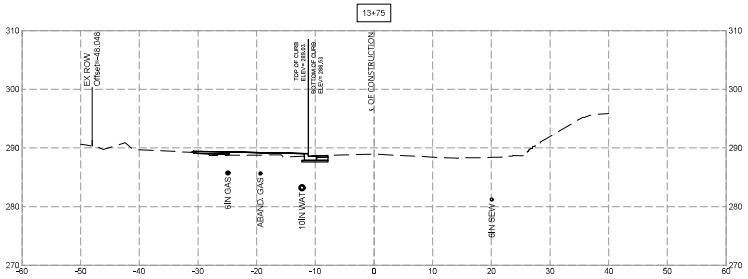












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SCALE: 1" = 10'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

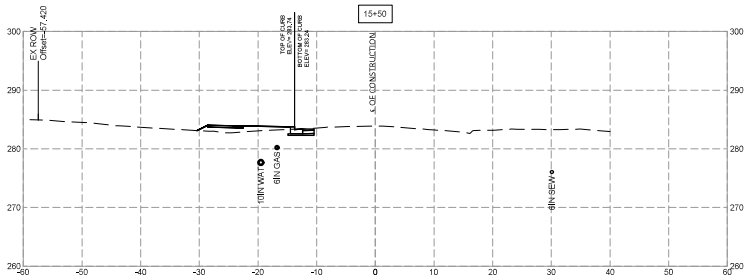
SCALE :

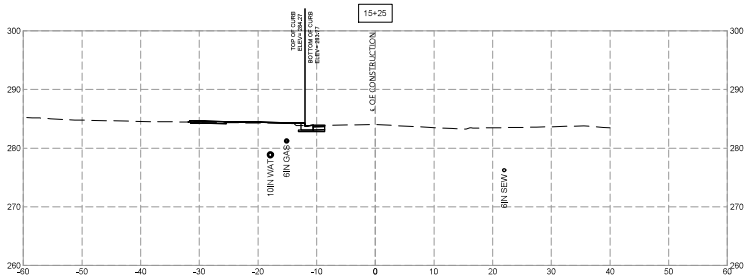
XS - 07

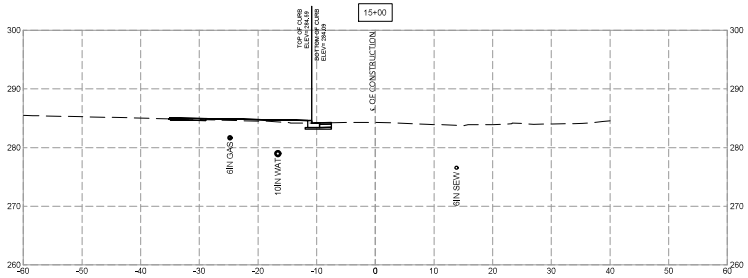
Project No.: TBD 91 of 109

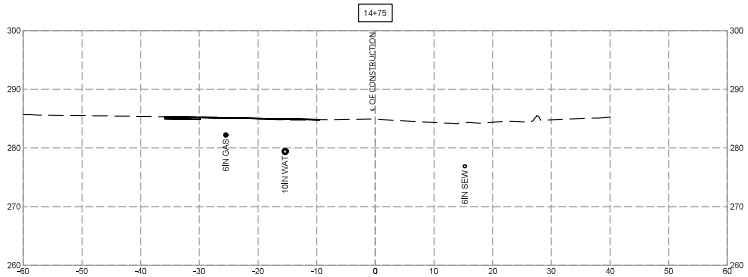
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:05pm

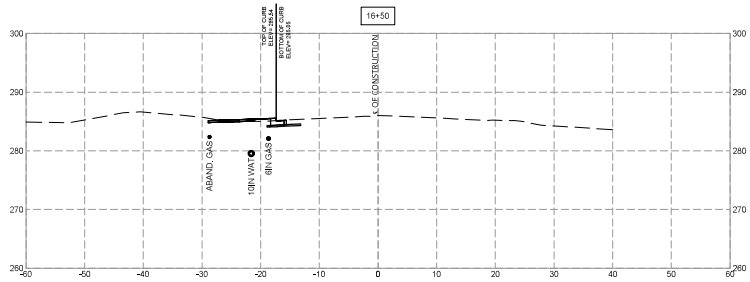
SHEET NO.	TOTAL SHEETS
92	109

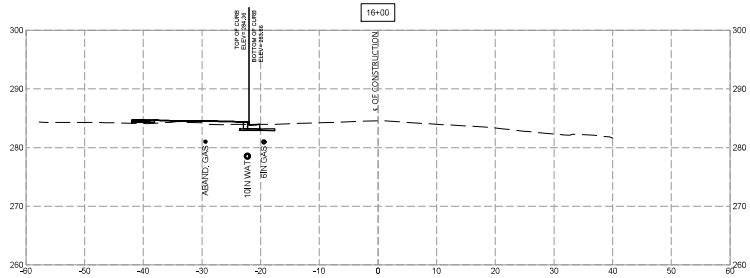


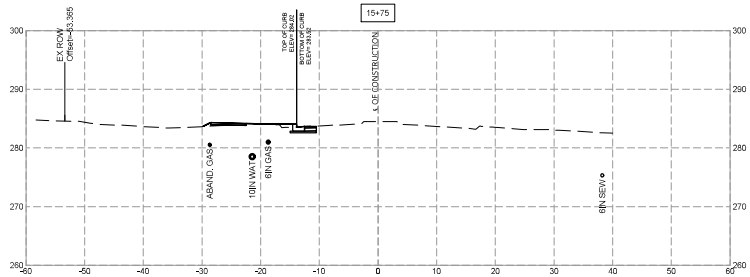












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SCALE: 1" = 10'

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MONTGOMERY COUNTY
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ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

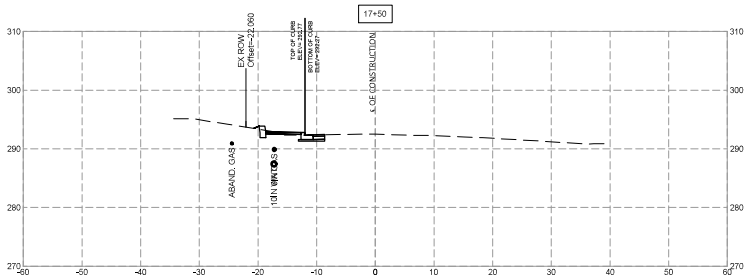
SCALE :

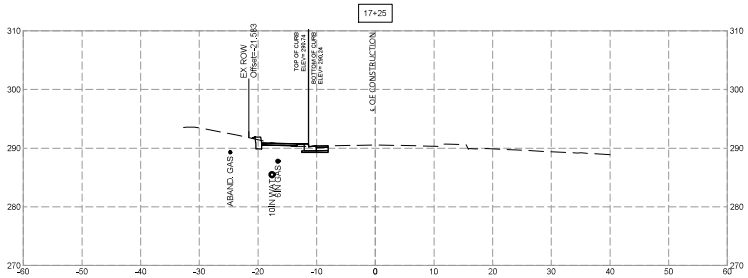
XS - 08

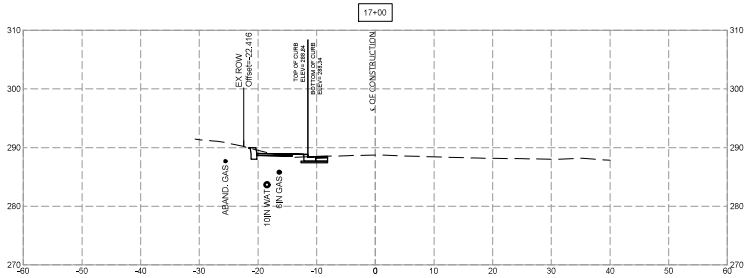
Project No.: TBD 92 of 109

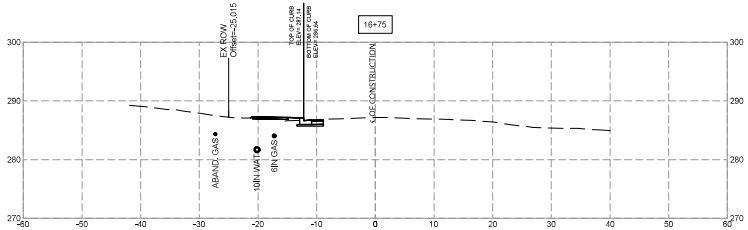
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:06pm

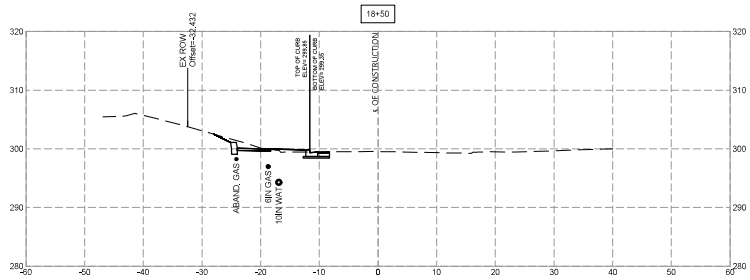
SHEET NO.	TOTAL SHEETS
93	109

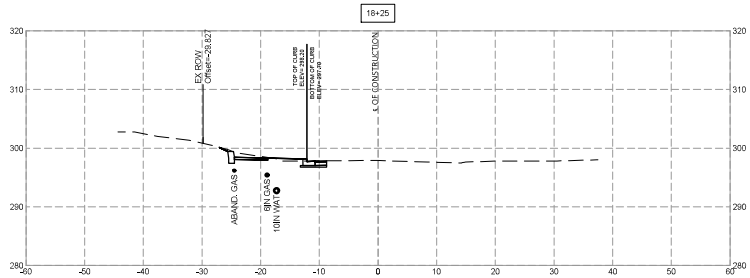


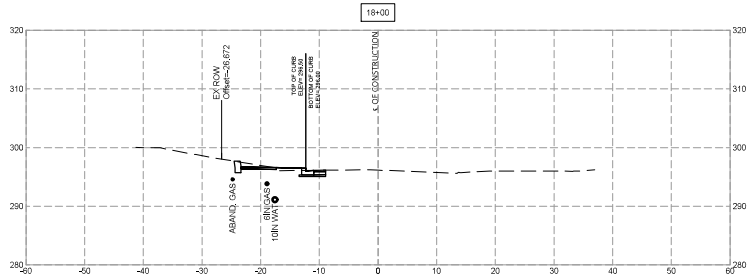


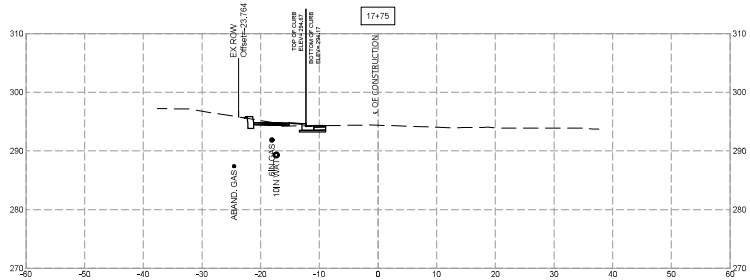












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SCALE: 1" = 10'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

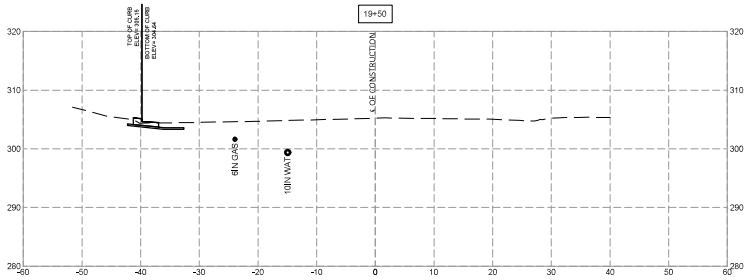
SCALE :

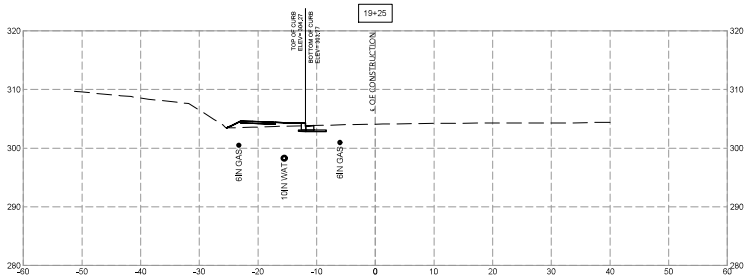
XS - 09

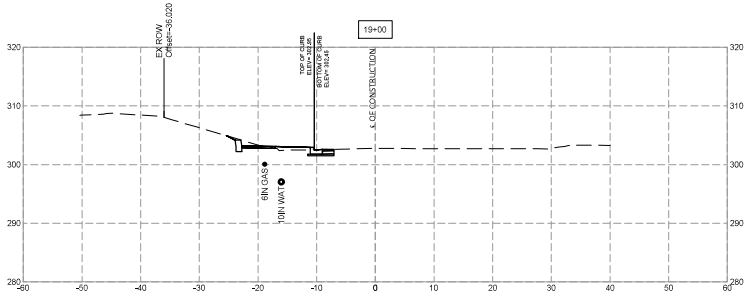
Project No.: TBD 93 of 109

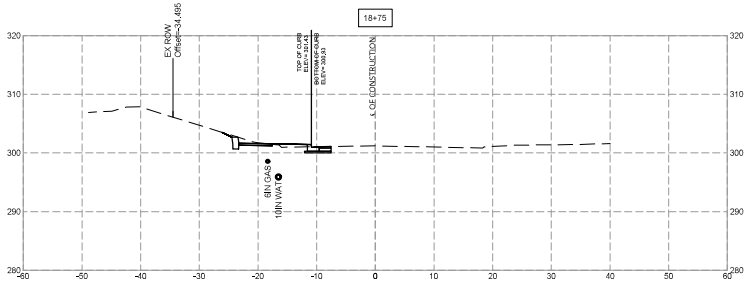
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:07pm

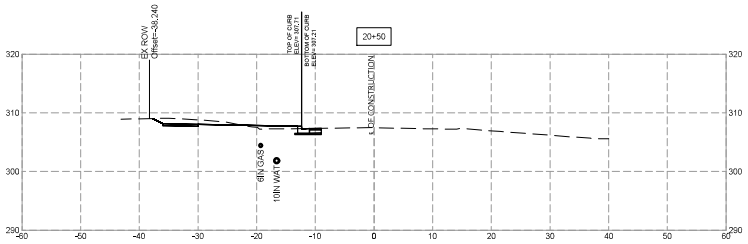
SHEET NO.	TOTAL SHEETS
94	109

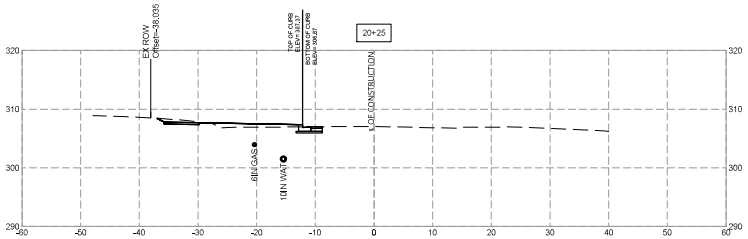


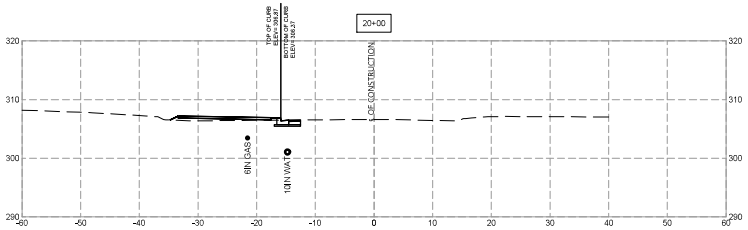


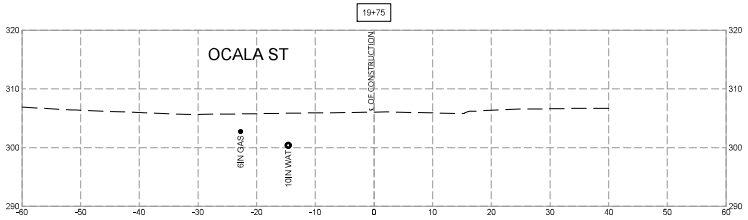












0 10 20
SCALE: 1" = 10'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

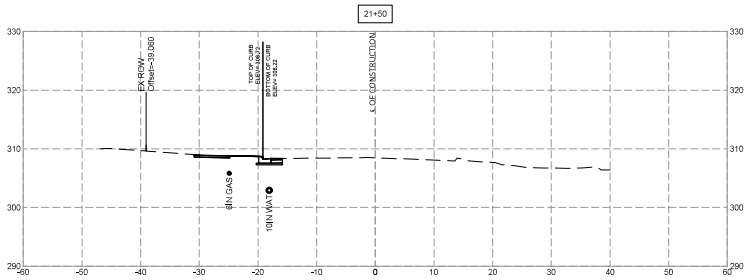
SCALE :

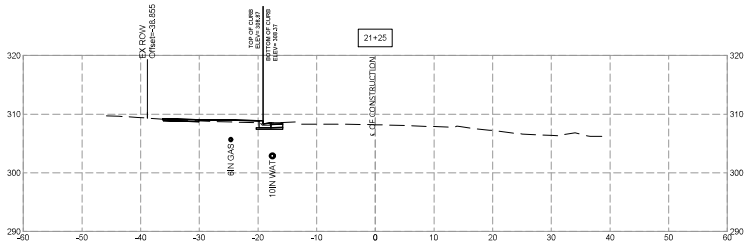
XS - 10

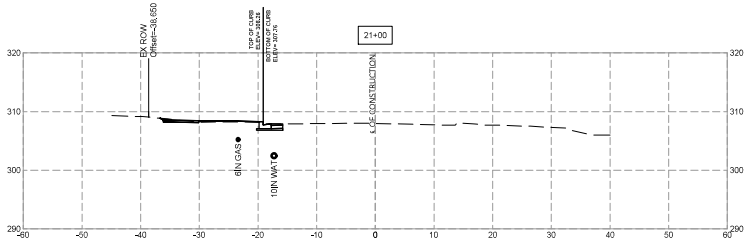
Project No.: TBD 94 of 109

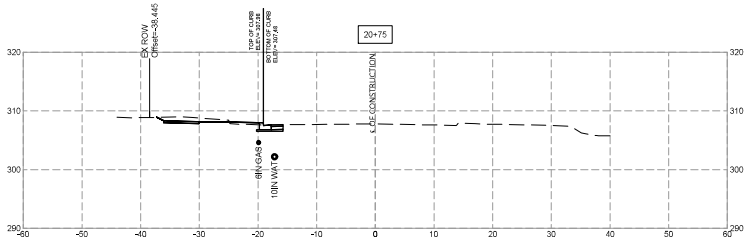
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:07pm

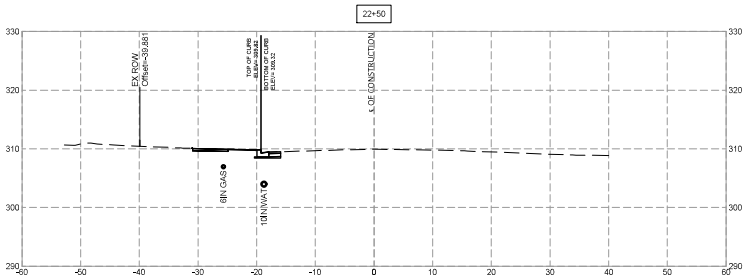
SHEET NO.	TOTAL SHEETS
95	109

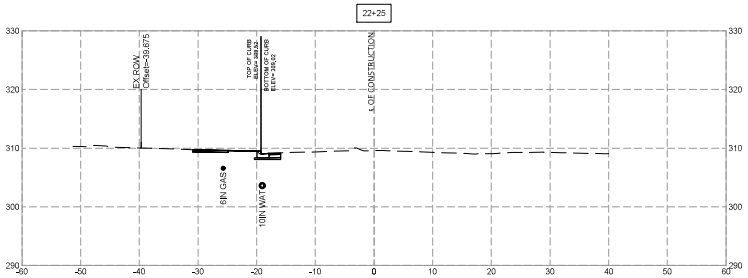


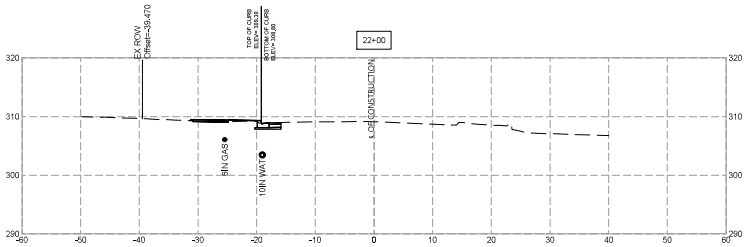


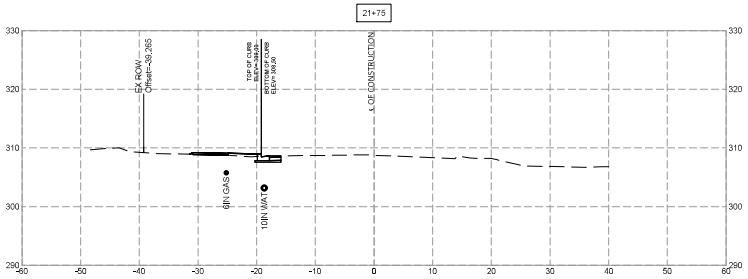












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SCALE: 1" = 10'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

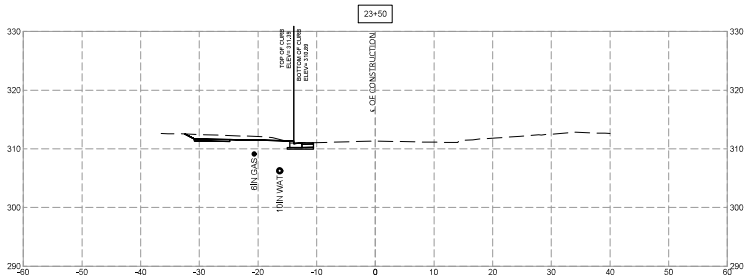
SCALE :

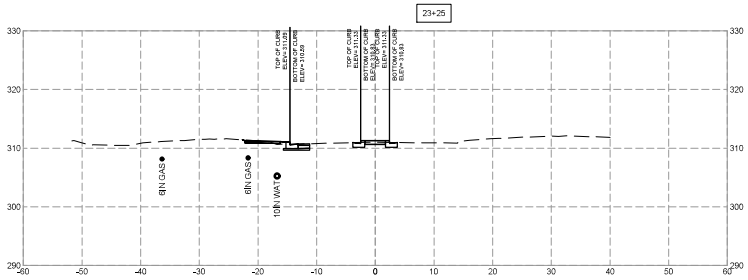
XS - 11

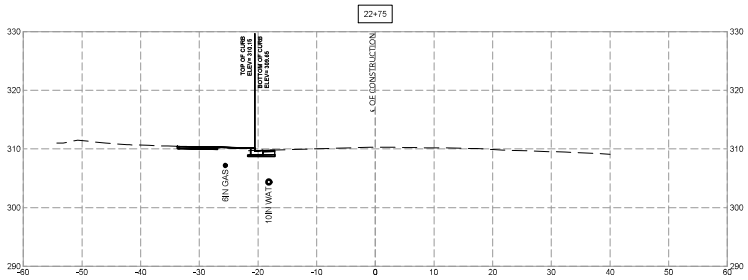
Project No.: TBD 95 of 109

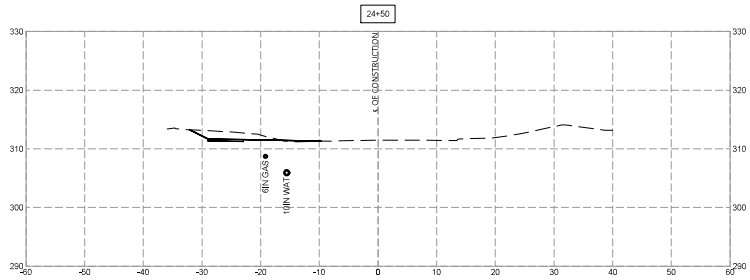
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:08pm

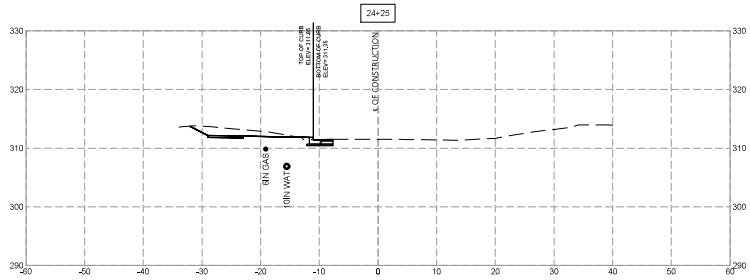
SHEET NO.	TOTAL SHEETS
96	109

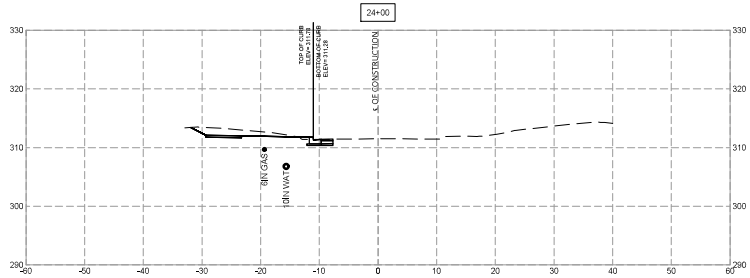


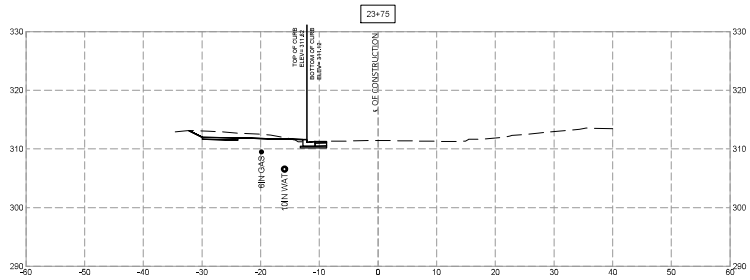












0 10 20
SCALE: 1" = 10'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

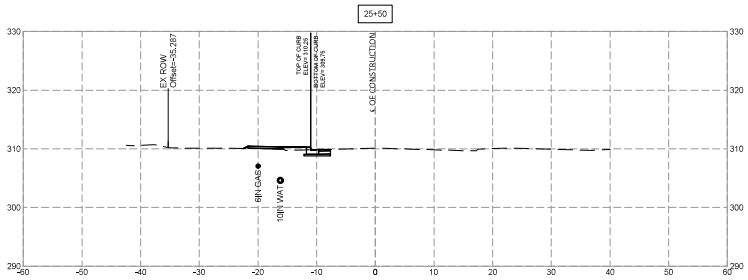
SCALE :

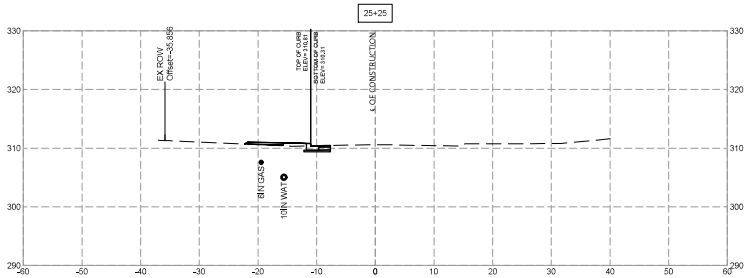
XS - 12

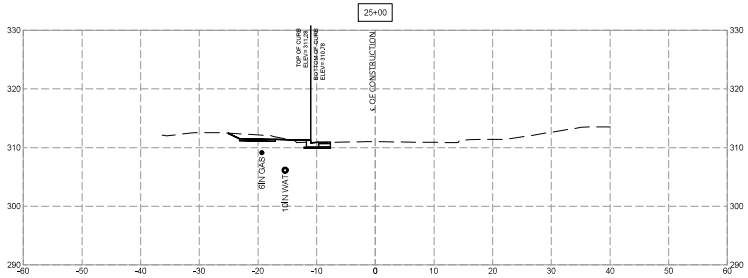
Project No.: TBD 96 of 109

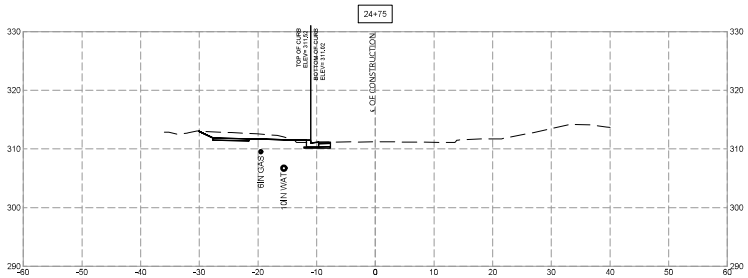
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:08pm

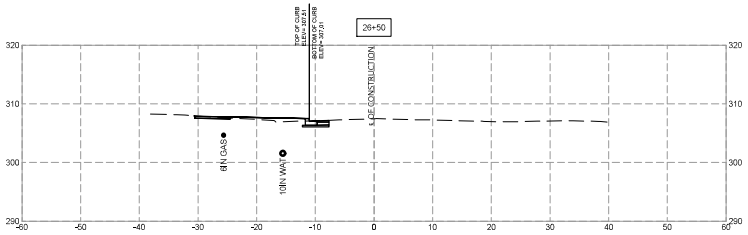
SHEET NO.	TOTAL SHEETS
97	109

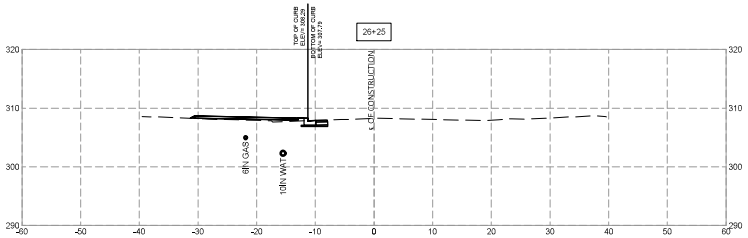


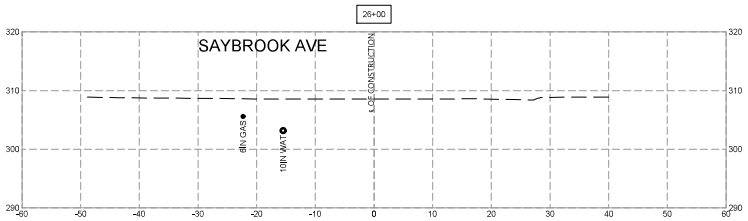


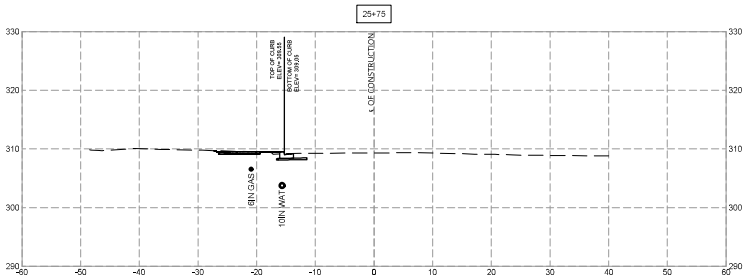












0 10 20
SCALE: 1" = 10'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

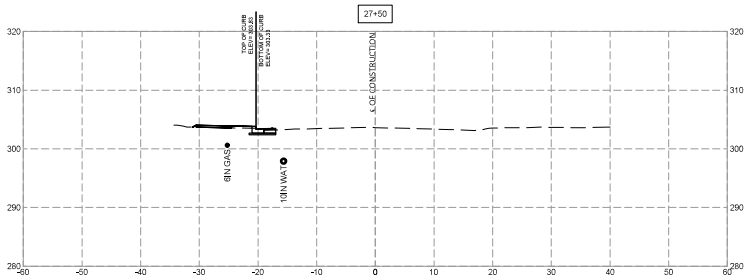
SCALE :

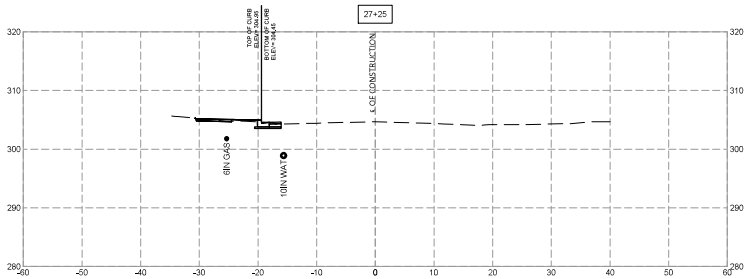
XS - 13

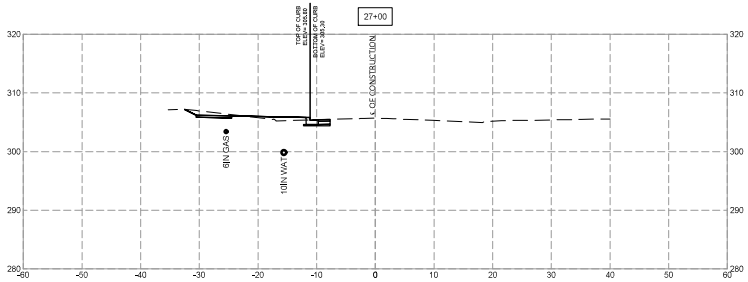
Project No.: TBD 97 of 109

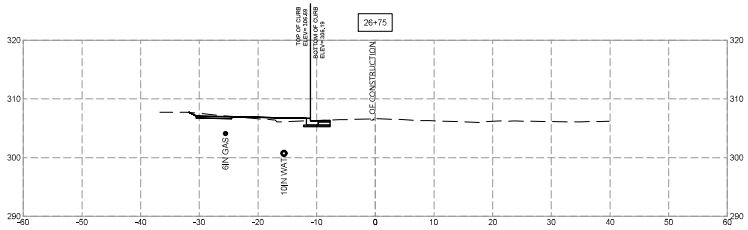
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:10pm

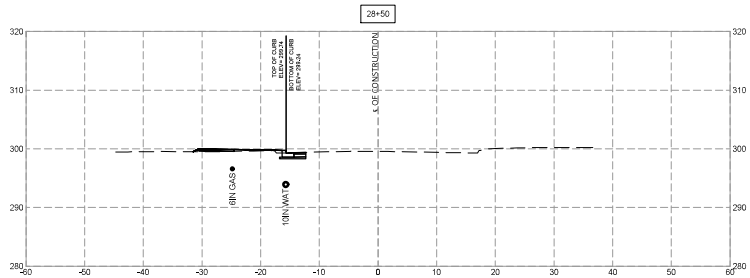
SHEET NO.	TOTAL SHEETS
98	109

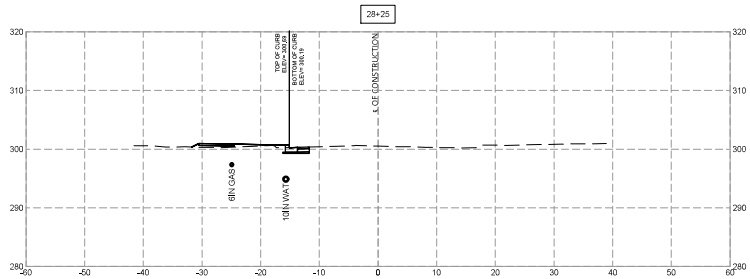


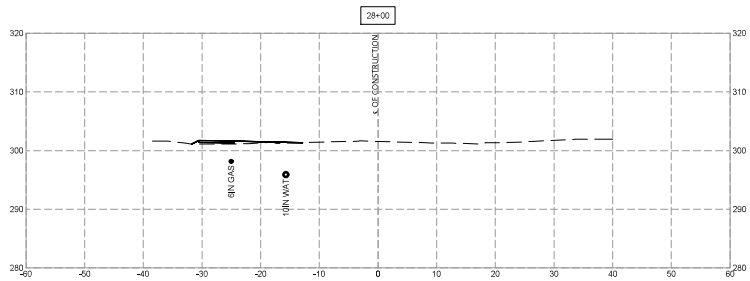


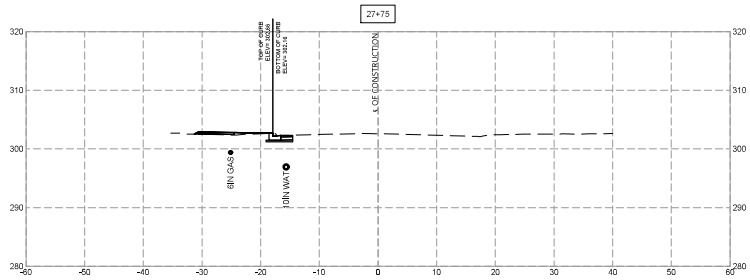












0 10 20
SCALE: 1" = 10'

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

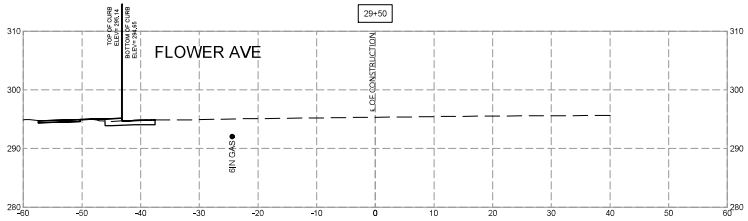
SCALE :

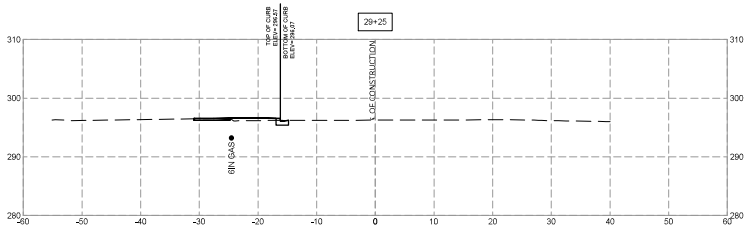
XS - 14

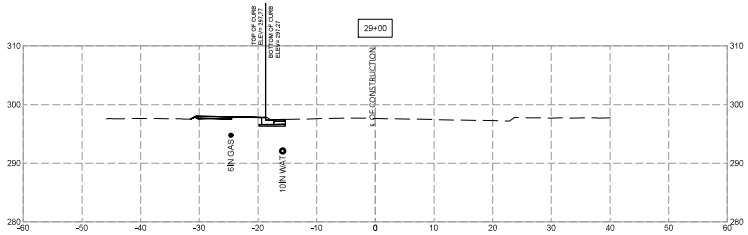
Project No.: TBD 98 of 109

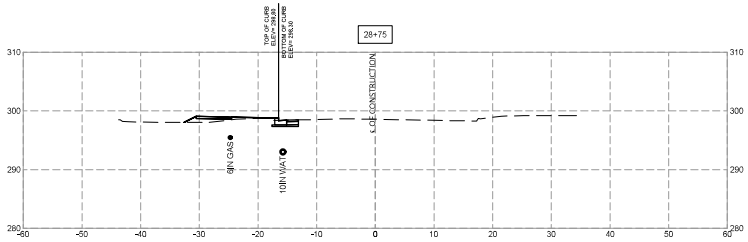
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:12pm

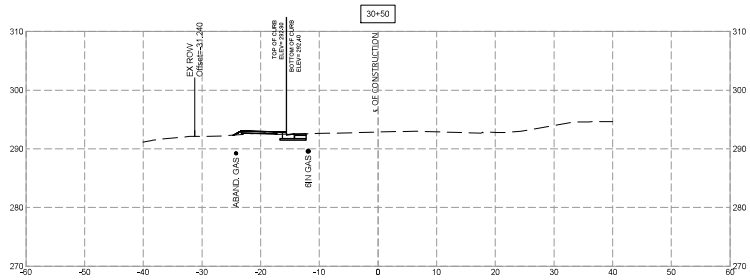
SHEET NO.	TOTAL SHEETS
99	109

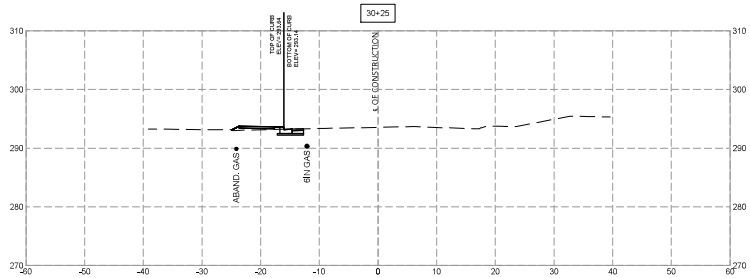


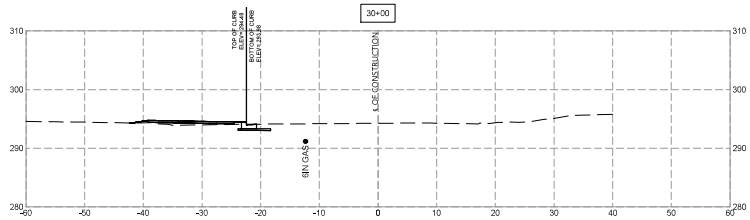


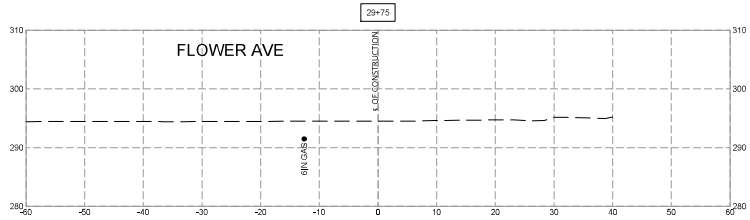












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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

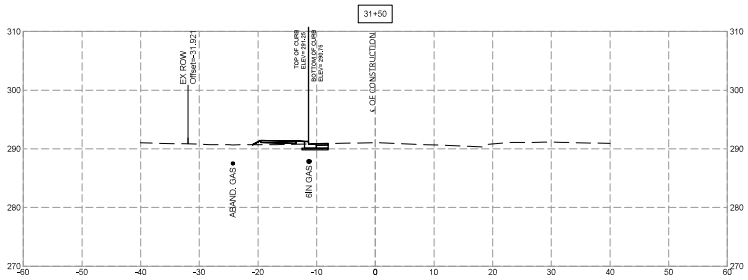
SCALE :

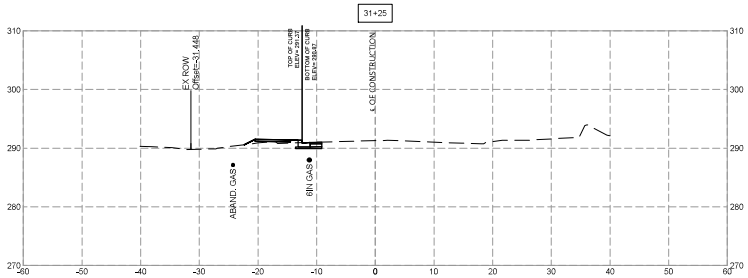
XS - 15

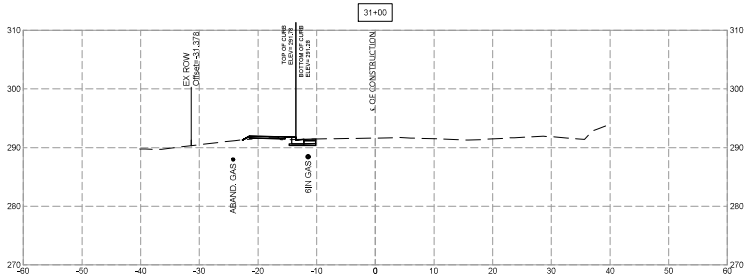
Project No.: TBD 99 of 109

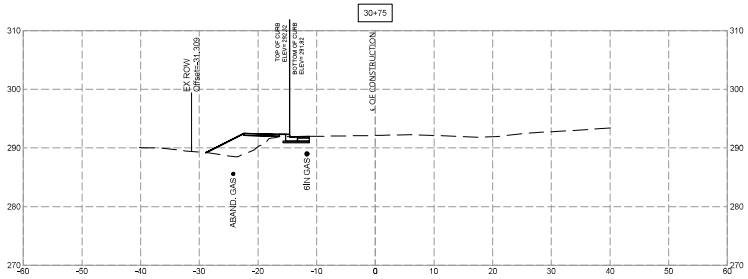
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:13pm

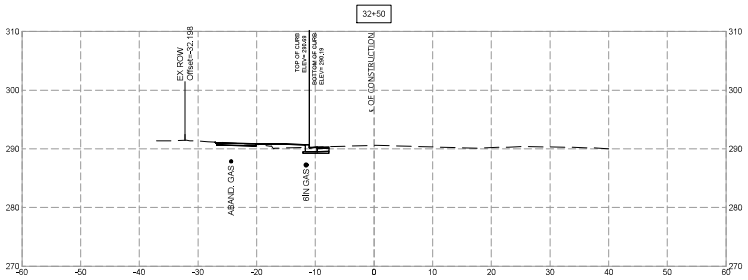
SHEET NO.	TOTAL SHEETS
100	109

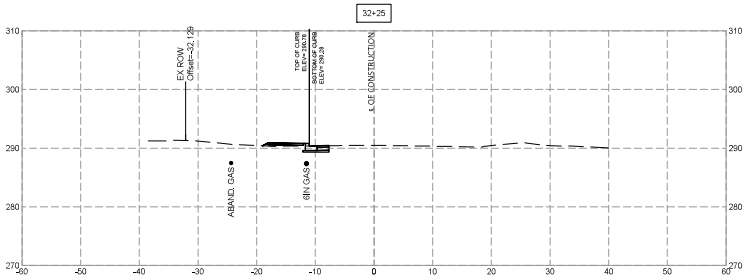


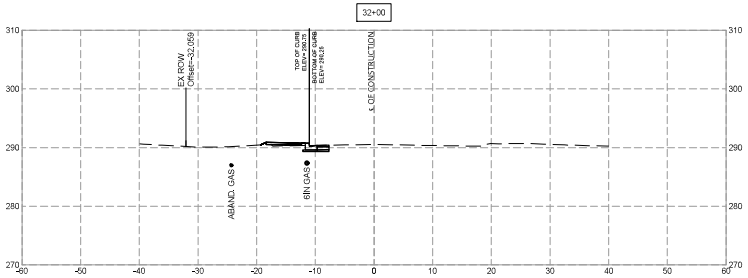


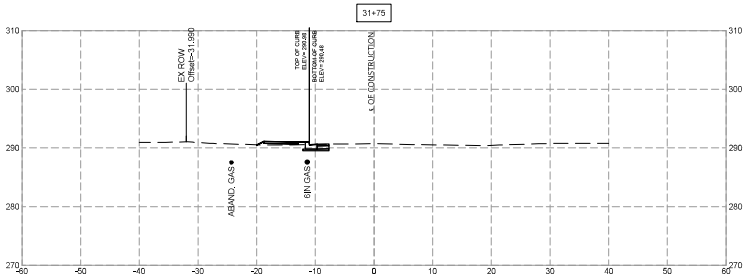












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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

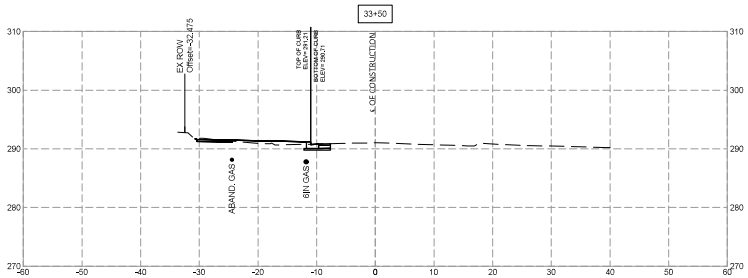
SCALE :

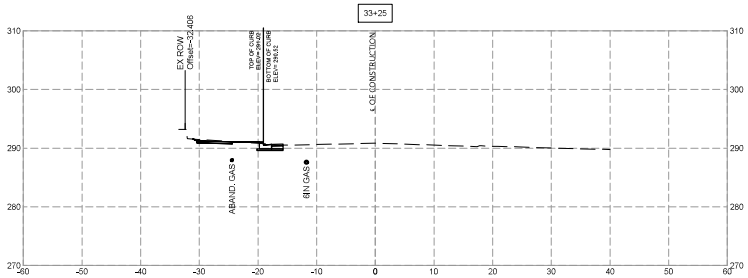
XS - 16

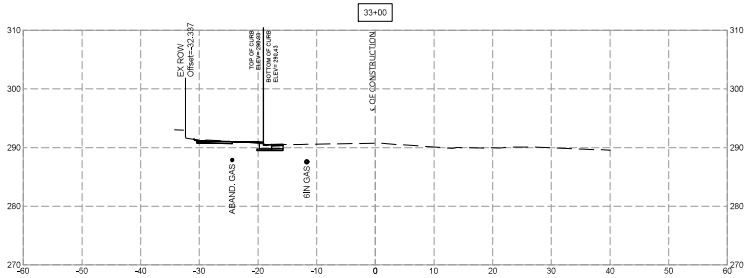
Project No.: TBD 100 of 109

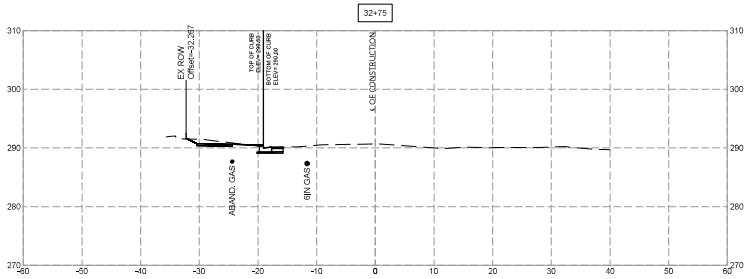
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:14pm

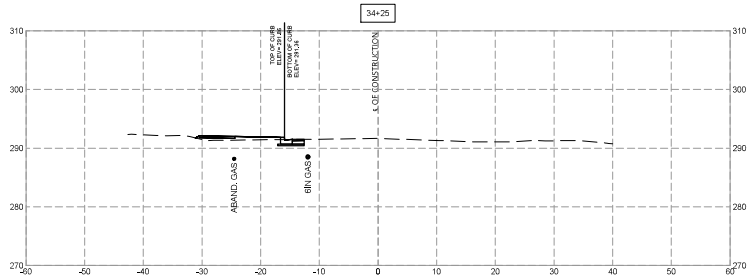
SHEET NO.	TOTAL SHEETS
101	109

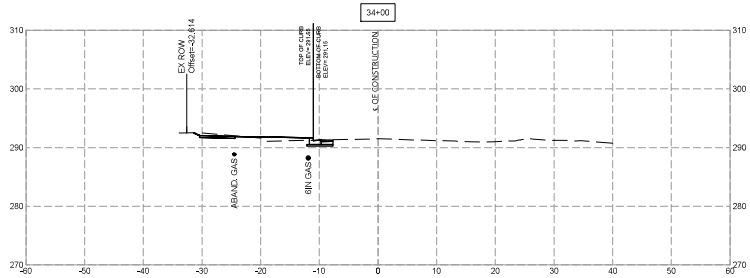


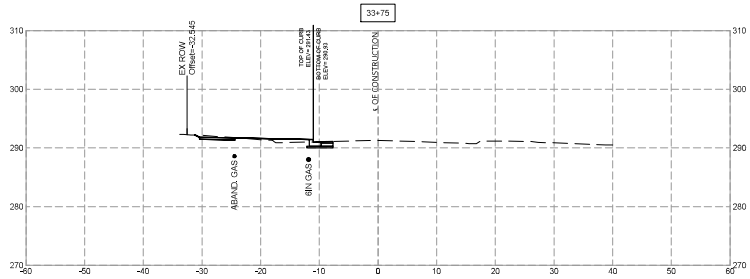












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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

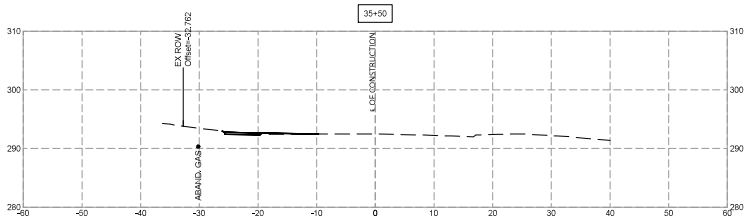
SCALE :

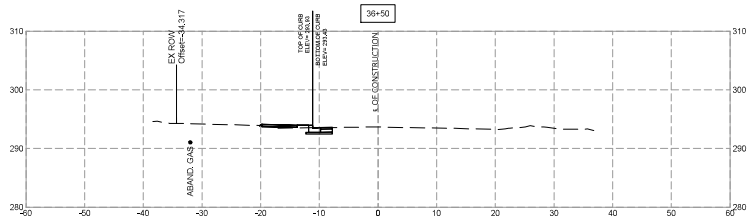
XS - 17

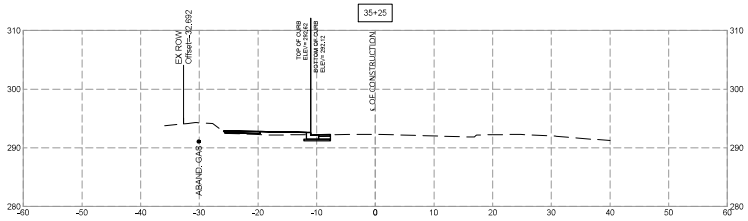
Project No.: TBD 101 of 109

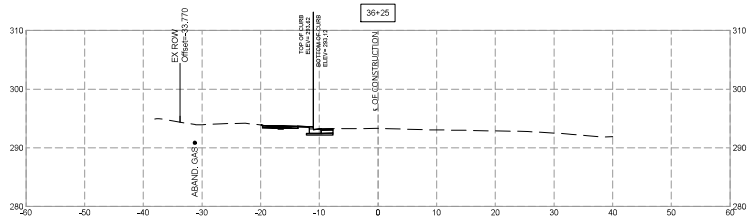
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:15pm

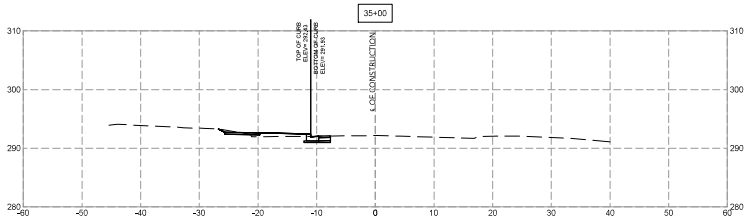
SHEET NO.	TOTAL SHEETS
102	109

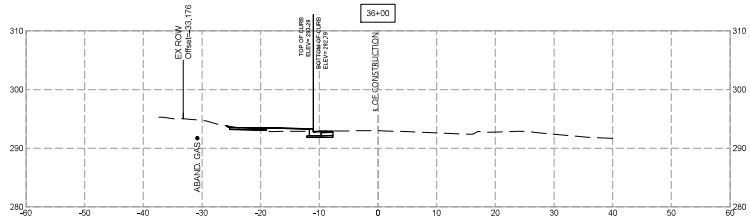


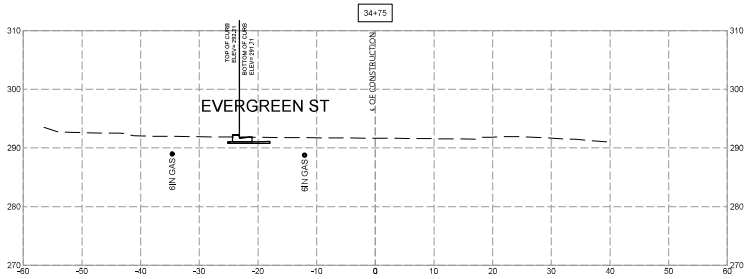


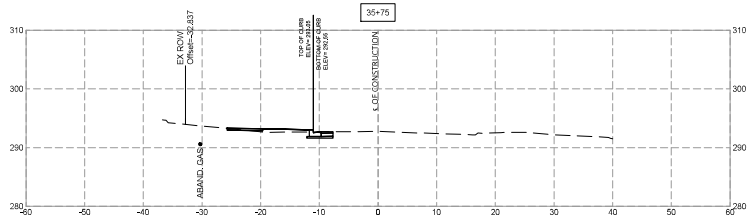












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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

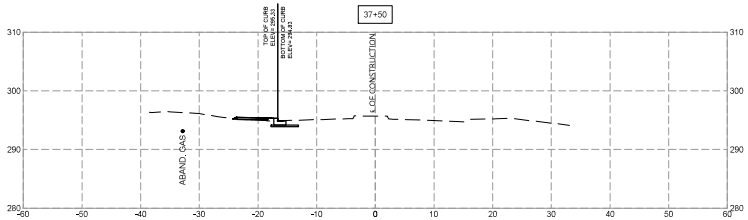
SCALE :

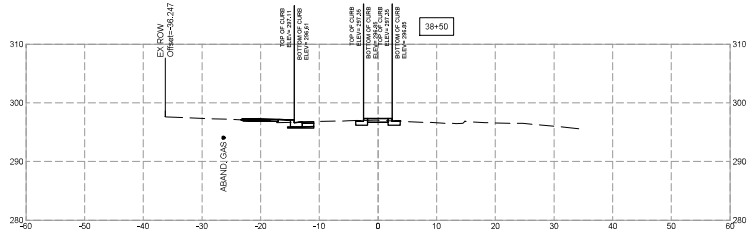
XS - 18

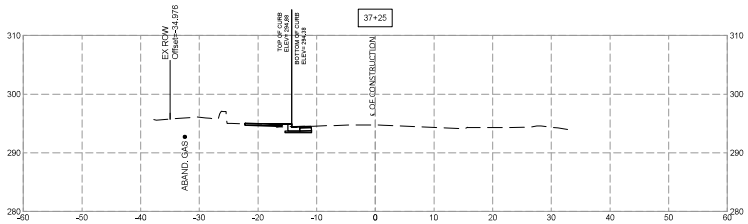
Project No.: TBD 102 of 109

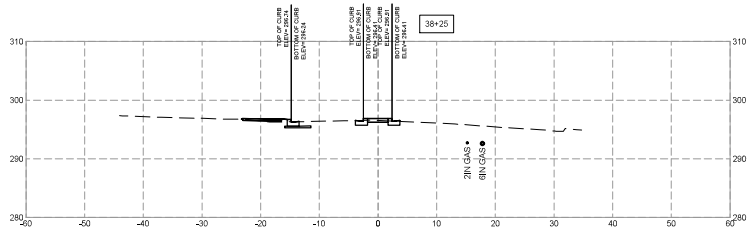
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:16pm

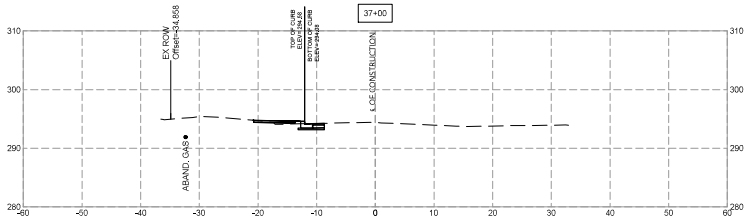
SHEET NO.	TOTAL SHEETS
103	109

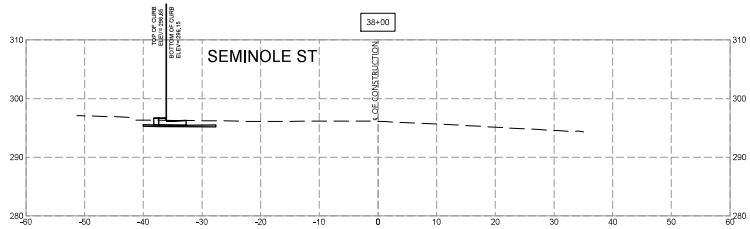


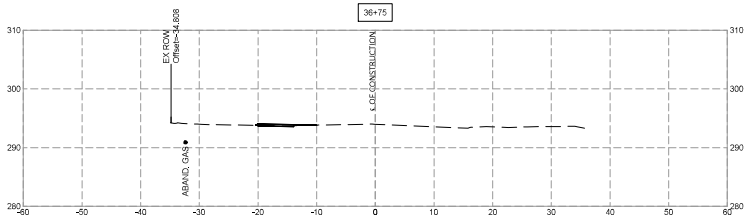


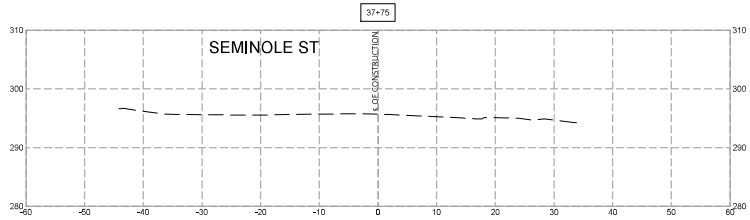












SCALE: 1" = 10'

Engineers, Architects
Development Consultants
SHELADIA ASSOCIATES, INC.
18879 Study Grove Road, Rockville, MD, 20850
Phone: 301-948-3838 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

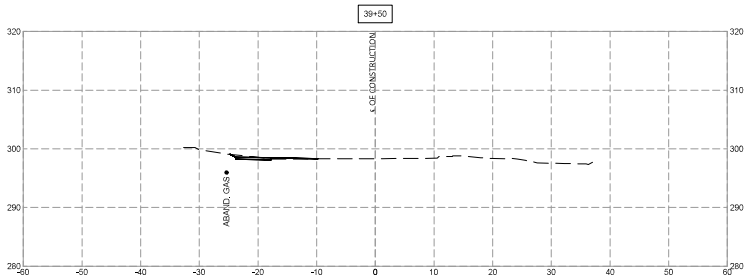
SCALE :

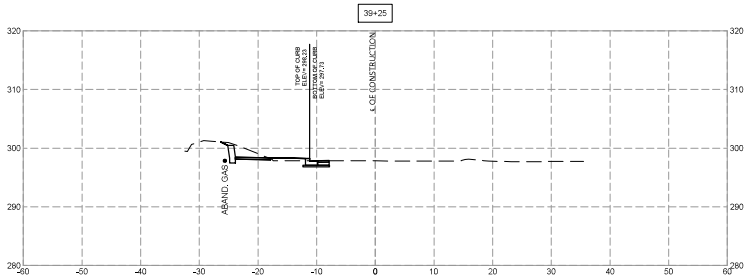
XS - 19

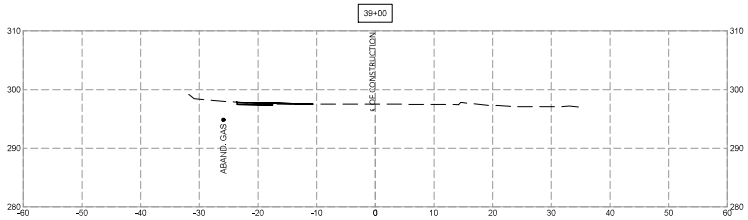
Project No.: TBD 103 of 109

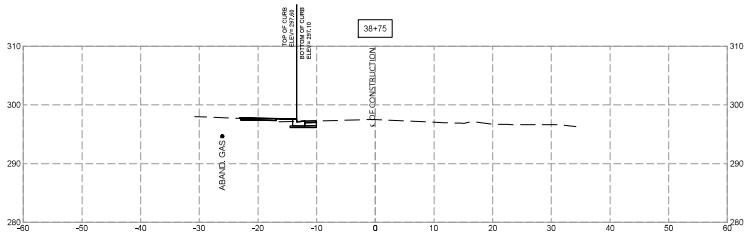
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:16pm

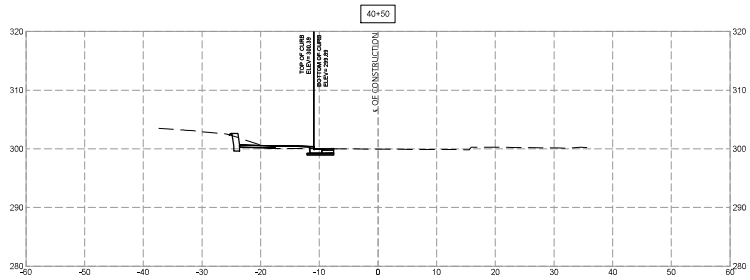
SHEET NO.	TOTAL SHEETS
104	109

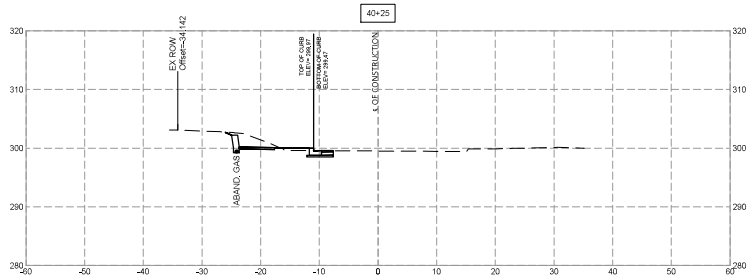


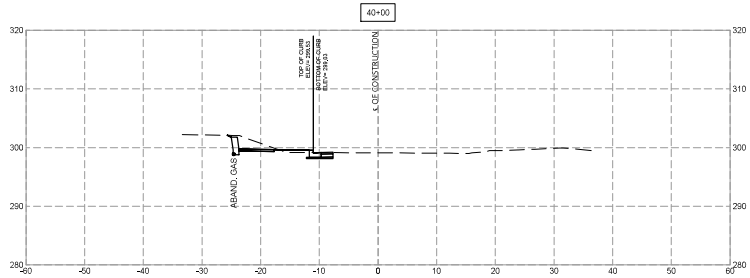


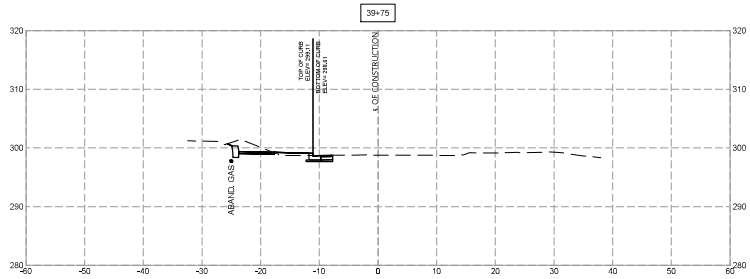












0 10 20
SCALE: 1" = 10'

SHELADIA Engineers, Architects Development Consultants
18875 Study Grove Road, Rockville, MD, 20850
Phone: 301-990-3838 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

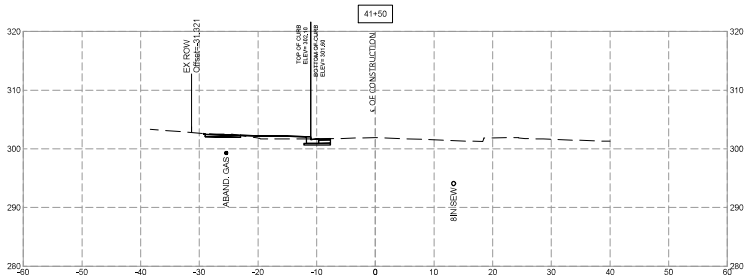
SCALE :

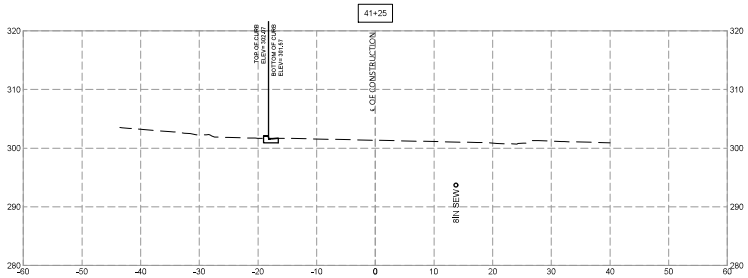
XS - 20

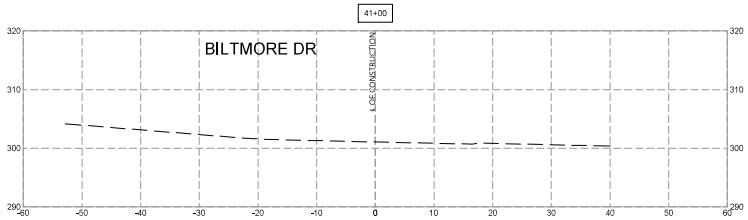
Project No.: TBD 104 of 109

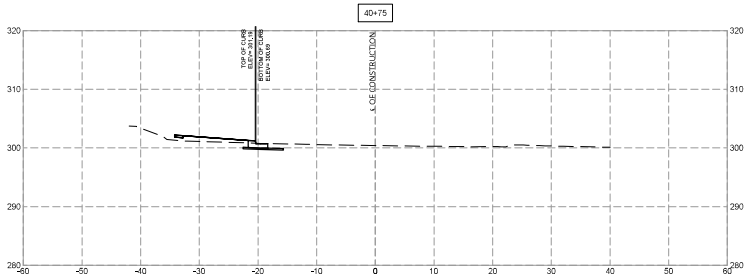
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:18pm

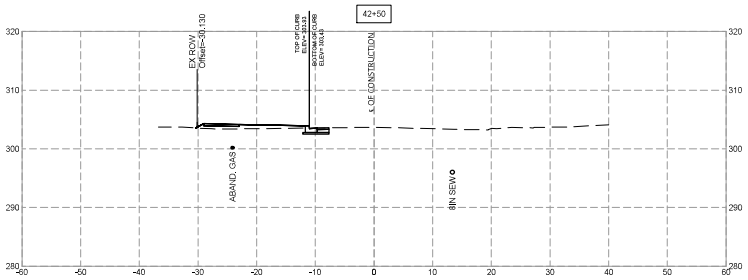
SHEET NO.	TOTAL SHEETS
105	109

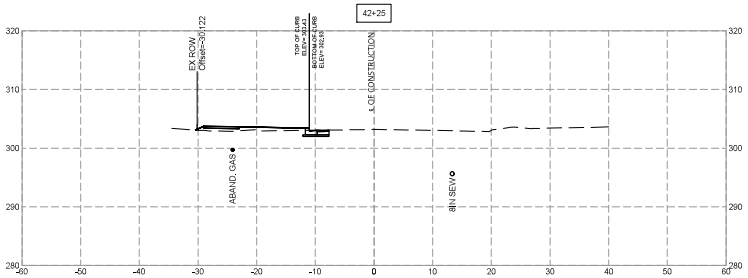


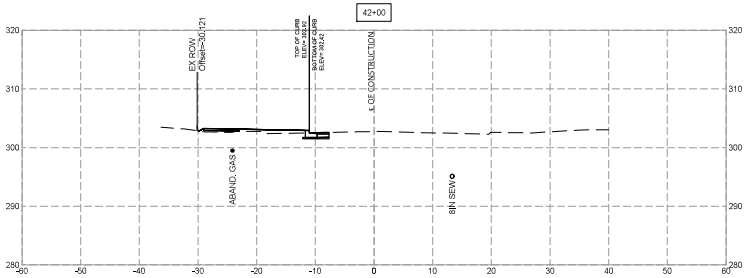


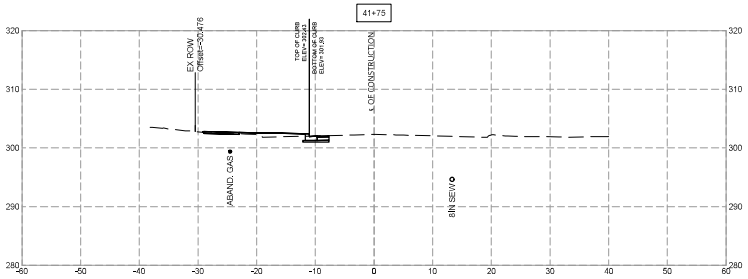












0 10 20
SCALE: 1" = 10'

SHELADIA Engineers, Architects Development Consultants
10875 Strathy Grove Road, Rockville, MD, 20850
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

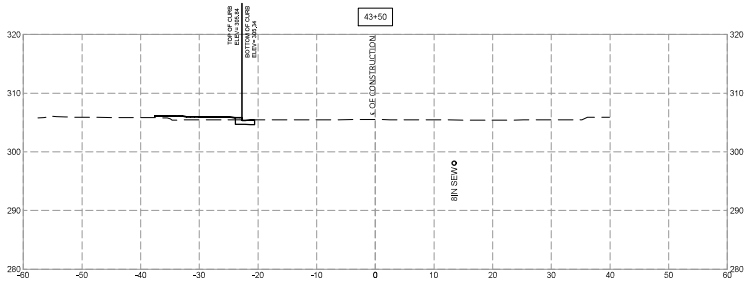
SCALE :

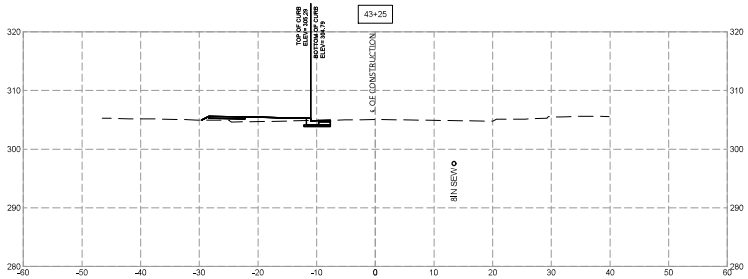
XS - 21

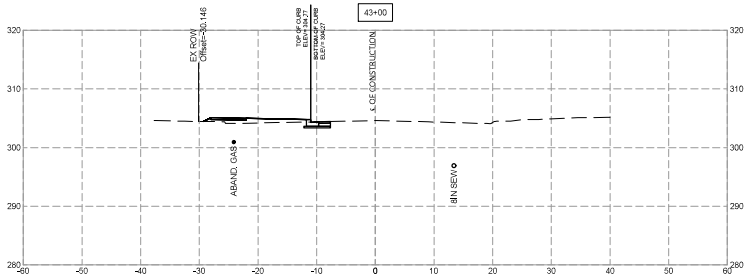
Project No.: TBD 105 of 109

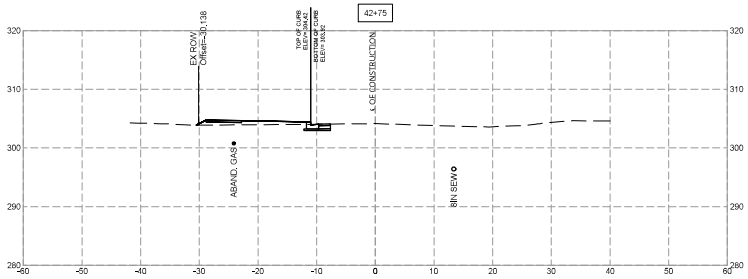
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:18pm

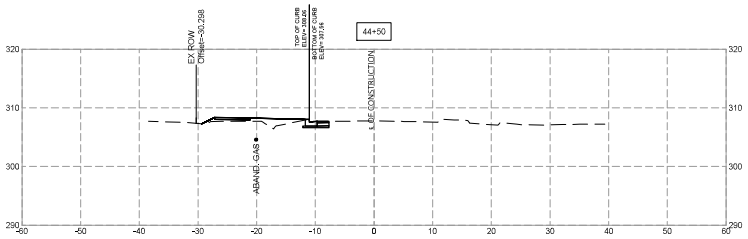
SHEET NO.	TOTAL SHEETS
106	109

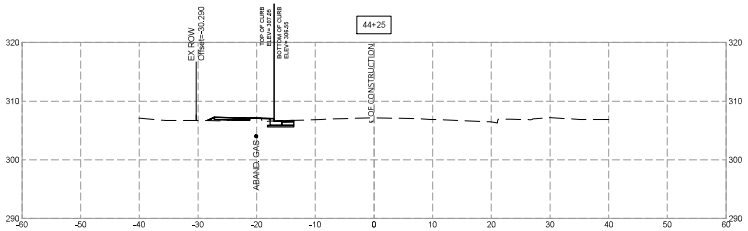


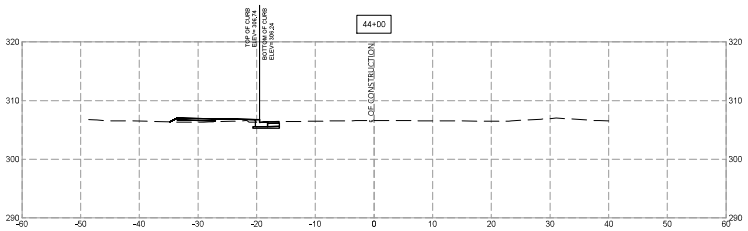


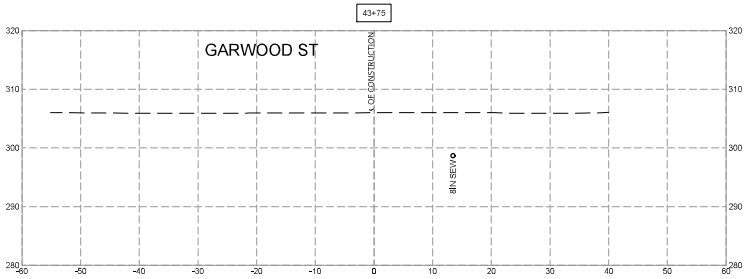












0 10 20
SCALE: 1" = 10'

SHELADIA Engineers, Architects Development Consultants
10875 Shady Grove Road, Rockville, MD, 20850
Phone: 301-309-3808 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ___ Drawn by: ___ Checked by: ___

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

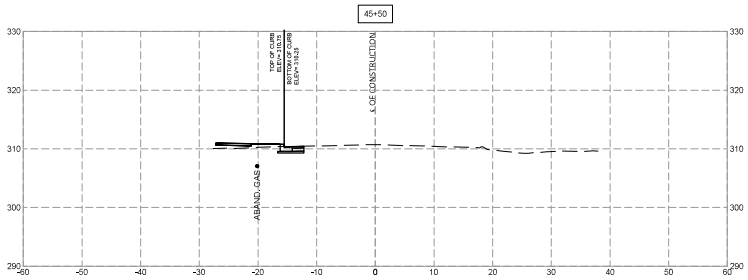
SCALE :

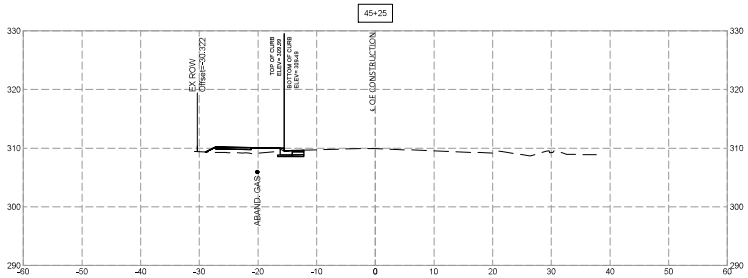
XS - 22

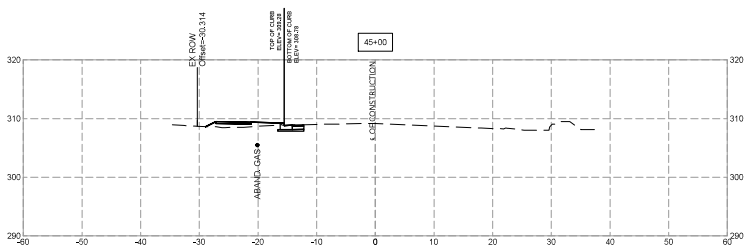
Project No.: TBD 106 of 109

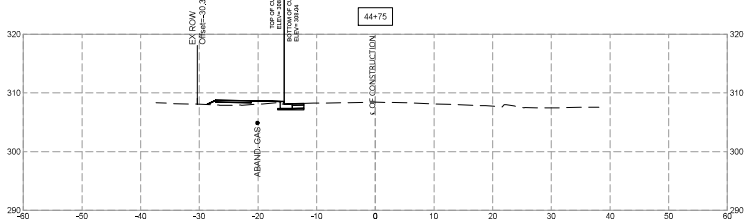
FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:18pm

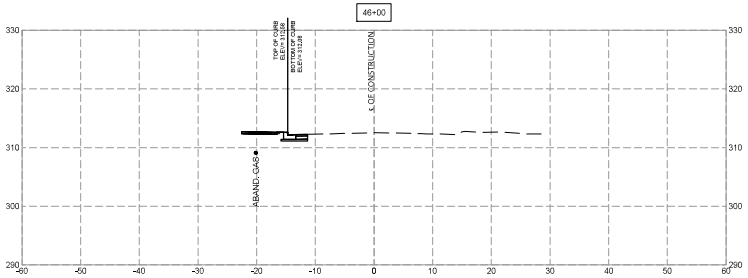
SHEET NO.	TOTAL SHEETS
107	109

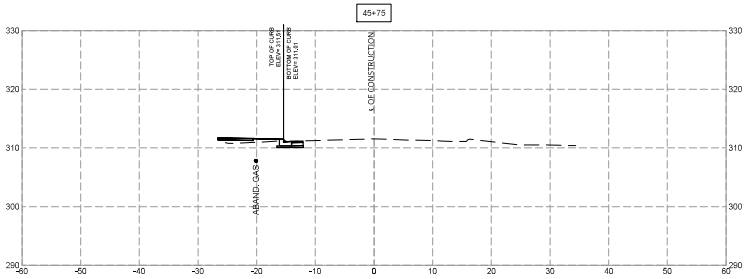












0 10 20
SCALE: 1" = 10'

SHELADIA Engineers, Architects Development Consultants
10875 Strathmore Road, Rockville, MD, 20852
Phone: 301-468-3555 Fax: 301-468-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

CROSS SECTIONS

SCALE :

XS - 23

Project No.: TBD 107 of 109

FILE: K:\5547 MC DOT\T2 Franklin Ave Sidewalk Final Design\07 DESIGN\DWG (Current Design)\Sheets\X-Sections\pHC-0000-Franklin_Working_3.dwg
DATE: Mar 07, 2023 - 2:20pm

INFILTRATION TEST DATA SHEET

Schnabel ENGINEERING

Project: East Franklin Ave Sidewalk Improvements
Project No: 20C12011
Test No: SWM-01 (Profile Boring SB-08)
Date: 3/29/2022
Location: Sta. 0+80, 31 LF
SE Rep. K. Salas
Test Depth: 5 ft
Sfc EL: 265 ft
Test EL: 260 ft
Basin EL:

PRESOAK:

Date: 3/29/2022
Time: 3:00 PM
Depth of Water: 3 ft
Soil Description USDA: Lab Results in Progress
Soil Description USCS: CLAYEY SAND (VISUAL)

24-Hour Reading
3/30/2022
11:45 AM
5 ft (dry)

TEST:

Run	Date	Begin Time	Begin Depth (feet)	End Time	End Depth (feet)	Infiltration Rate (in/hr)
1	3/30/2022	11:40AM	3.00	12:40PM	4.15	13.80
2	3/30/2022	12:40PM	3.00	1:40 PM	3.96	11.52
3	3/30/2022	1:40 PM	3.00	2:40 PM	4.00	12.00
4	3/30/2022	2:40 PM	3.00	3:40 PM	4.06	12.72
Avgerage Infiltration Rate (in/hr)						12.51

INFILTRATION TEST DATA SHEET

Schnabel ENGINEERING

Project: East Franklin Ave Sidewalk Improvements
Project No: 20C12011
Test No: SWM-02 (Profile Boring HA-02)
Date: 3/29/2022
Location: Sta. 4+97, 20.8 LF
SE Rep. K. Salas
Test Depth: 5 ft
Sfc EL: 267 ft
Test EL: 262 ft
Basin EL:

PRESOAK:

Date: 3/29/2022
Time: 2:15 PM
Depth of Water: 3 ft
Soil Description USDA: Lab Results in Progress
Soil Description USCS: SANDY LEAN CLAY (VISUAL)

24-Hour Reading
3/30/2022
11:30 AM
5 ft (dry)

TEST:

Run	Date	Begin Time	Begin Depth (feet)	End Time	End Depth (feet)	Infiltration Rate (in/hr)
1	3/30/2022	11:35 AM	3.00	12:35 PM	3.00	0.00
2	3/30/2022	12:35 PM	3.00	1:35 PM	2.98	0.24
3	3/30/2022	1:35 PM	2.98	2:35 PM	2.97	0.12
4	3/30/2022	2:35 PM	2.97	3:35 PM	2.97	0.00
Avgerage Infiltration Rate (in/hr)						0.09

INFILTRATION TEST DATA SHEET

Schnabel ENGINEERING

Project: East Franklin Ave Sidewalk Improvements
Project No: 20C12011
Test No: SWM-03 (Profile Boring HA-03)
Date: 3/29/2022
Location: Sta. 31+30, 24.1 LF
SE Rep. K. Salas
Test Depth: 5 ft
Sfc EL: 291 ft
Test EL: 286 ft
Basin EL:

PRESOAK:

Date: 3/29/2022
Time: 1:20 PM
Depth of Water: 3 ft
Soil Description USDA: Lab Results in Progress
Soil Description USCS: SILTY SAND (VISUAL)

24-Hour Reading
3/30/2022
11:20 AM
4 ft

TEST:

Run	Date	Begin Time	Begin Depth (feet)	End Time	End Depth (feet)	Infiltration Rate (in/hr)
1	3/30/2022	11:20 AM	3.00	12:20 PM	3.05	0.60
2	3/30/2022	12:20 PM	3.05	1:20 PM	3.07	0.24
3	3/30/2022	1:20 PM	3.07	2:20 PM	3.11	0.48
4	3/30/2022	2:20 PM	3.11	3:20 PM	3.13	0.24
Avgerage Infiltration Rate (in/hr)						0.39

INFILTRATION TEST DATA SHEET

Schnabel ENGINEERING

Project: East Franklin Ave Sidewalk Improvements
Project No: 20C12011
Test No: SWM-04 (Profile Boring HA-04)
Date: 3/29/2022
Location: Sta. 33+47, 26.3 LF
SE Rep. K. Salas
Test Depth: 5 ft
Sfc EL: 291 ft
Test EL: 286 ft
Basin EL:

PRESOAK:

Date: 3/29/2022
Time: 11:30 AM
Depth of Water: 3 ft
Soil Description USDA: Lab Results in Progress
Soil Description USCS: SILTY SAND (VISUAL)

24-Hour Reading
3/30/2022
11:05 AM
5 ft (dry)

TEST:

Run	Date	Begin Time	Begin Depth (feet)	End Time	End Depth (feet)	Infiltration Rate (in/hr)
1	3/30/2022	11:10 AM	3.00	12:15 PM	3.85	10.20
2	3/30/2022	12:15 PM	3.85	1:15 PM	4.13	3.36
3	3/30/2022	1:15 PM	3.00	2:15 PM	3.36	4.32
4	3/30/2022	2:15 PM	3.36	3:15 PM	3.51	1.80
Avgerage Infiltration Rate (in/hr)						4.92

INFILTRATION TEST DATA SHEET

Schnabel ENGINEERING

20C12011
3/29/2022
Location: Sta. 36+07, 26 LF
SE Rep. K. Salas
Test Depth: 5 ft
Sfc EL: 293 ft
Test EL: 288 ft
Basin EL:

PRESOAK:

Date: 3/29/2022
Time: 10:30 AM
Depth of Water: 3 ft
Soil Description USDA: Lab Results in Progress
Soil Description USCS: CLAYEY SAND (VISUAL)

24-Hour Reading
3/30/2022
10:55 AM
3.54 ft

TEST:

Run	Date	Begin Time	Begin Depth (feet)	End Time	End Depth (feet)	Infiltration Rate (in/hr)
1	3/30/2022	11:00 AM	3.00	12:10 PM	3.03	0.36
2	3/30/2022	12:10 PM	3.03	1:10 PM	3.07	0.48
3	3/30/2022	1:10 PM	3.07	2:10 PM	3.10	0.36
4	3/30/2022	2:10 PM	3.10	3:10 PM	3.15	0.60
Avgerage Infiltration Rate (in/hr)						0.46

INFILTRATION TEST DATA SHEET

Schnabel ENGINEERING

Project: East Franklin Ave Sidewalk Improvements
Project No: 20C12011
Test No: SWM-06 (Profile Boring SB-06)
Date: 3/29/22
Location: Sta. 41+80, 17.9 LF
SE Rep. K. Salas
Test Depth: 5 ft
Sfc EL: 302 ft
Test EL: 297 ft
Basin EL:

PRESOAK:

Date: 3/29/2022
Time: 4:50 PM
Depth of Water: 3 ft
Soil Description USDA: Lab Results in Progress
Soil Description USCS: POORLY GRADED SAND (VISUAL)

24-Hour Reading
3/30/2022
10:30 AM
3.79 ft

TEST:

Run	Date	Begin Time	Begin Depth (feet)	End Time	End Depth (feet)	Infiltration Rate (in/hr)
1	3/30/2022	10:35 AM	3.00	12:05 PM	3.05	0.60
2	3/30/2022	12:05 PM	3.05	1:05 PM	3.10	0.60
3	3/30/2022	1:05 PM	3.10	2:05 PM	3.17	0.84
4	3/30/2022	2:05 PM	3.17	3:05 PM	3.20	0.36
Avgerage Infiltration Rate (in/hr)						0.60

INFILTRATION TEST DATA SHEET

Schnabel ENGINEERING

Project: East Franklin Ave Sidewalk Improvements
Project No: 20C12011
Test No: SWM-07 (Profile Boring SB-07)
Date: 3/29/2022
Location: Sta. 44+71, 24.35 LF
SE Rep. K. Salas
Test Depth: 5 ft
Sfc EL: 308 ft
Test EL: 303 ft
Basin EL:

PRESOAK:

Date: 3/29/2022
Time: 5:00 PM
Depth of Water: 3 ft
Soil Description USDA: Lab Results in Progress
Soil Description USCS: LEAN CLAY WITH SAND (VISUAL)

24-Hour Reading
3/30/2022
10:25 AM
3.54 ft

TEST:

Run	Date	Begin Time	Begin Depth (feet)	End Time	End Depth (feet)	Infiltration Rate (in/hr)
1	3/30/2022	10:25 AM	3.00	12:00 PM	3.12	1.44
2	3/30/2022	12:00 PM	3.12	1:00 PM	3.17	0.60
3	3/30/2022	1:00 PM	3.17	2:00 PM	3.23	0.72
4	3/30/2022	2:00 PM	3.23	3:00 PM	3.26	0.36
Avgerage Infiltration Rate (in/hr)						0.78

SHELADIA Engineers, Architects Development Consultants
14601 Sturtly Grove Road, Rockville, Maryland 20850
Phone: 301-590-2300 Fax: 301-590-1974

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL:
Chief, Design Section — Date
APPROVED:
Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

BORING LOG – 1

SCALE : N/A

SB - 01

Project No.: TBD — 108 of 109

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	QTY.	UNIT
1001	CLEARING AND GRUBBING	1	LS
1002	MAINTENANCE OF TRAFFIC	1	LS
1003	CONSTRUCTION STAKEOUT	1	LS
1004	MOBILIZATION AND DEMOBILIZATION	1	LS
2001	CLASS 2 EXCAVATION	720	CY
2002	COMMON BORROW	430	CY
2003	REMOVAL AND DISPOSAL OF EXISTING CONCRETE PAVEMENT, DRIVEWAY AND SIDEWALK	650	CY
2004	REMOVAL AND DISPOSAL OF EXISTING CONCRETE CURB AND OR GUTTER	4,700	LF
3001	15 INCH CLASS IV RCP	730	LF
3002	18 INCH CLASS IV RCP	530	LF
3003	24 INCH CLASS IV RCP	520	LF
3004	27 INCH CLASS IV RCP	65	LF
3005	30 INCH CLASS IV RCP	230	LF
3010	CUSTOM 10' COG INLET	4	EA
3011	CUSTOM 15' COG INLET	1	EA
3012	STD 15' TYPE "A" INLET, MCDOT STD MC-501.01	1	EA
3013	STD 5' TYPE "B" INLET, MCDOT STD MC-502.01	1	EA
3014	STD 10' TYPE "B" INLET, MCDOT STD MC-502.01	2	EA
3015	STD 20' TYPE "B" INLET, MCDOT STD MC-502.01	3	EA
3016	STD REVERSE 10' TYPE "B" INLET, MCDOT STD MC-502.02	5	EA
3017	STD REVERSE 20' TYPE "B" INLET, MCDOT STD MC-502.02	3	EA
3018	5' AND 10' COS OPENING, SHA STD MD 374.88	1	EA
3019	15' COS OPENING, SHA STD MD 374.68	1	EA
3020	STD TRIPLE WR INLET, MD 374.08	2	EA
3021	STD TYPE "K" INLET (10' CURB OPENING FOR FLOW IN), MD 378.11	1	EA
3030	STD TYPE 'A' 48" SQU. MANHOLE, MCDOT STD MC 510.01	3	EA
3031	STD TYPE "B" 48" DIA. MANHOLE, MCDOT STD MC-515.01	3	EA
3032	MD DOT SHA 60" DIA. MANHOLE, MCDOT STD MD-384.03	5	EA
3033	MD DOT SHA 72" DIA. MANHOLE, MCDOT STD MD-384.05	1	EA
3040	STD TYPE "C" ENDWALL, SHA STD MD 354.01	1	EA
3050	ESD PLANTERS BOX	7	EA
3051	6 INCH PERFORATED PVC PIPE, SCH 40	530	LF
3052	6 INCH NON-PERFORATED PVC PIPE, SCH 40	65	LF
3053	CURB INLET PROTECTION	19	EA
3054	STANDARD INLET PROTECTION	3	EA
3055	TEMPORARY STONE OUTLET STRUCTURE	1	EA

ITEM NO.	DESCRIPTION	QTY.	UNIT
4001	RETAINING WALL	1,600	SF
4001	DEMOLISH/REFURBISH EXISTING FENCE/WALL AND PLANTINGS	7	EA
5001	4 INCH BASE COURSE USING GRADED AGGREGATE	3,500	SY
5002	8 INCH BASE COURSE USING GRADED AGGREGATE	3,150	SY
5003	HMA BITUMINOUS CONCRETE 3-IN (2EA-1.5-IN LAYERS) SURFACE, PG 64-22	1,600	SY
5004	HMA BITUMINOUS CONCRETE 5-IN BASE, PG 64-22	1,600	SY
5005	5" SOLID WHITE THERMOPLASTIC PAVEMENT MARKING	5,000	LF
5006	7 INCH PLAIN CEMENT CONCRETE PAVEMENT DRIVEWAY ENTRANCE	800	SY
6001	MCDOT TYPE A COMBINATION CONCRETE CURB AND GUTTER	1,400	LF
6002	MCDOT TYPE C COMBINATION CONCRETE CURB AND GUTTER	2,400	LF
6003	MCDOT DEPRESSED CONCRETE CURB ENTRANCE	925	LF
6004	MCDOT 4" RESIDENTIAL SIDEWALK	2,100	SY
6005	4" PERVIOUS CONCRETE SIDEWALK	350	SY
6006	SHA SIDEWALK RAMP PARALLEL	18	EA
6007	SHA SIDEWALK RAMP PERPENDICULAR	25	EA
6008	DETECTABLE WARNING SURFACE	500	SF
6009	RELOCATE SIGNS (STOP SIGN, BUS STOP, ETC.)	21	EA
7001	CERCIS CANADENSIS -2" CALIPER B&B	11	EA
7002	CORNUS FLORIDA - 2" CALIPER B&B	7	EA
7003	CRATAEGUS VIRIDIS 'WINTER KING' - 2" CALIPER B&B	4	EA
7004	PRUNUS X INCAMP 'OKAME' - 2" CALIPER B&B	4	EA
7005	LINDERA BENZOIN - 36" HT. CONT.	5	EA
7006	ECHINACEA PURPUREA - 1 GAL. CONT.	23	EA
7007	PANICUM VIRGATUM 'CHETENNE SKY' - 1 GAL. CONT.	23	EA
7008	RUDBECKIA FOLGIDA 'GOLDSTRUM' - 1 GAL. CONT.	23	EA
7010	TURFGRASS SOD ESTABLISHMENT	4,550	SY
7011	TREE ROOT PRUNING	800	LF
7012	TREE PROTECTION FENCING	2,100	LF
7013	TREE FELLING, SHRUB AND STUMP REMOVAL	1	LS

0 30 60
SCALE: 1" = 30'

SHELADIA Engineers, Architects Development Consultants
18005 Study Grove Road, Rockville, MD, 20850
Phone: 301-330-3008 Fax: 301-948-7174
www.sheladia.com

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

SEE TITLE SHEET FOR SIGNATURES

Designed by: ____ Drawn by: ____ Checked by: ____

FRANKLIN AVENUE SIDEWALK

SUMMARY OF QUANTITIES

SCALE: N/A

SQ-01

Project No.: TBD 109 of 109