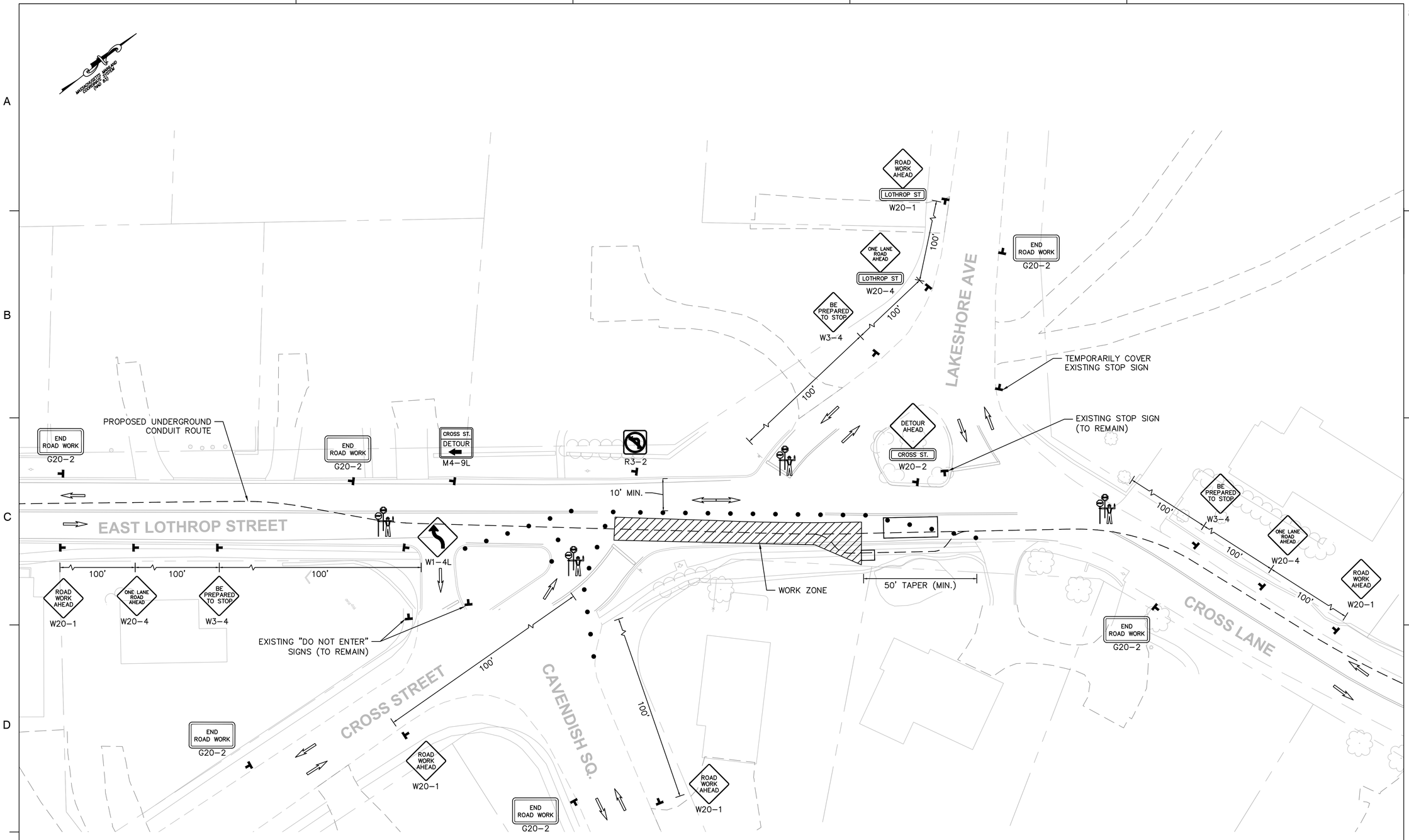

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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1"=20'
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No.	DATE	BY	Description

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APPROVED BY AZ
CHECKED BY AZ
DATE 11/25/2020

TITLE

TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-101**

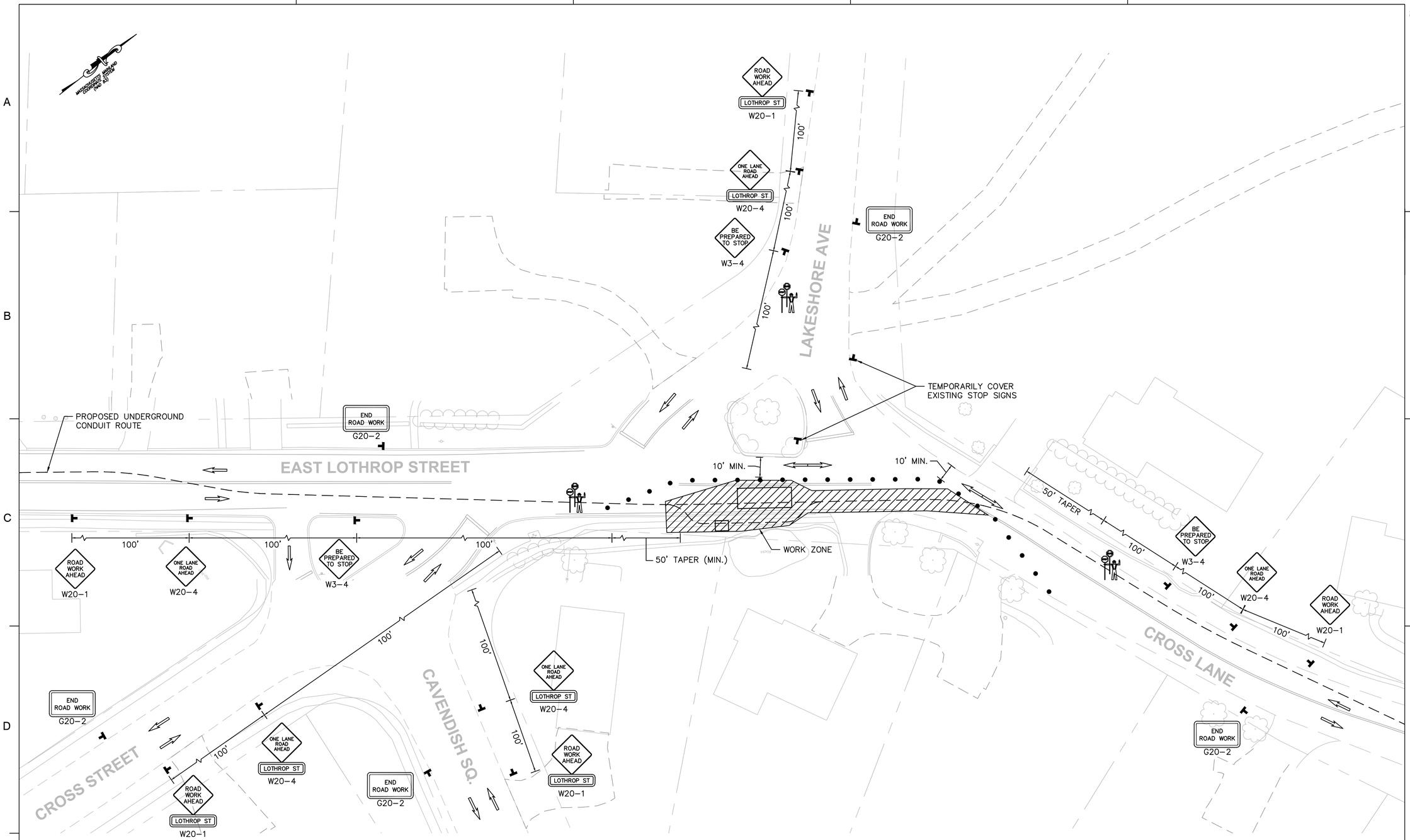

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-102**

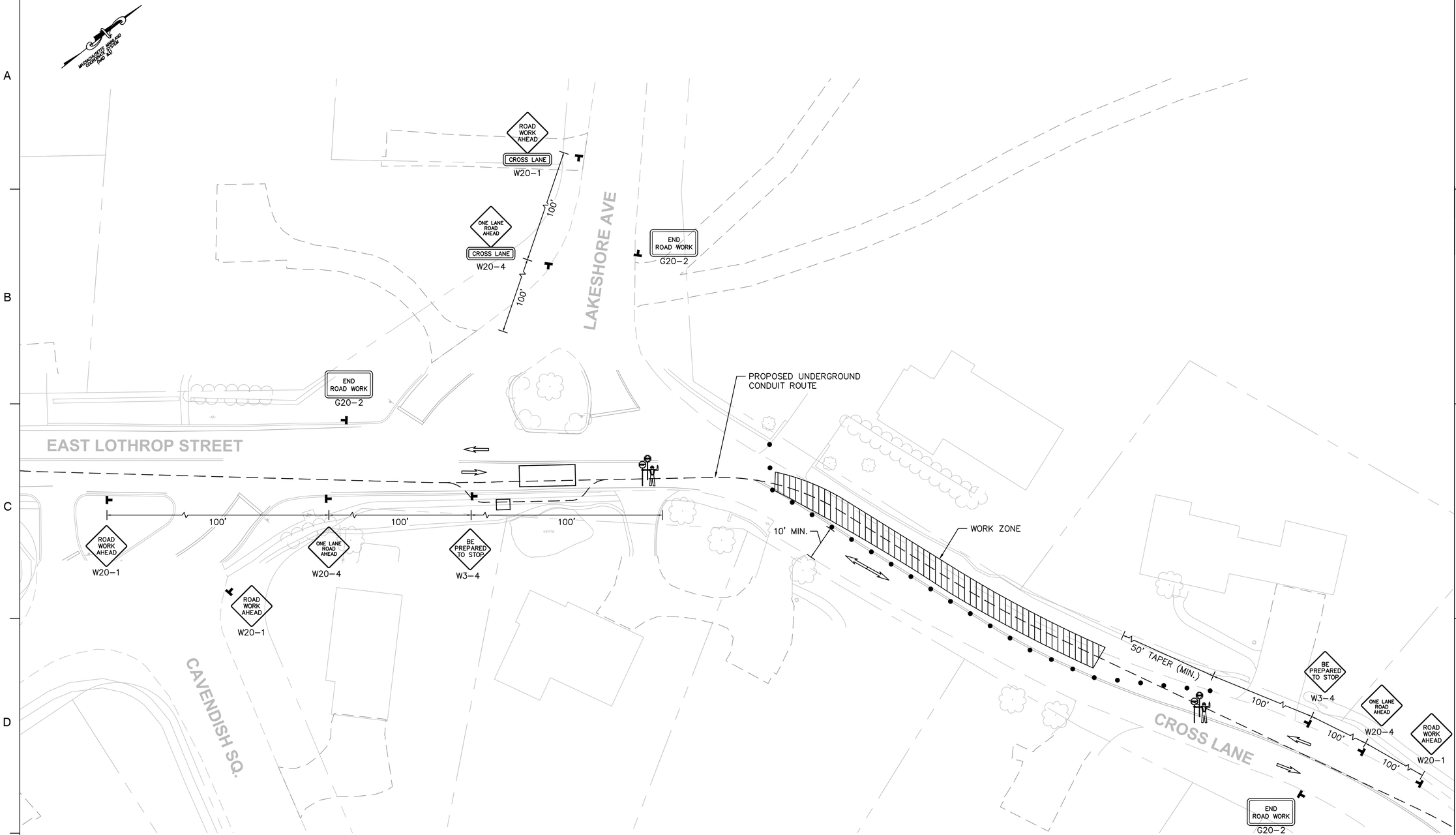

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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DATE	11/25/2020

TITLE

TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-103**

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-104**

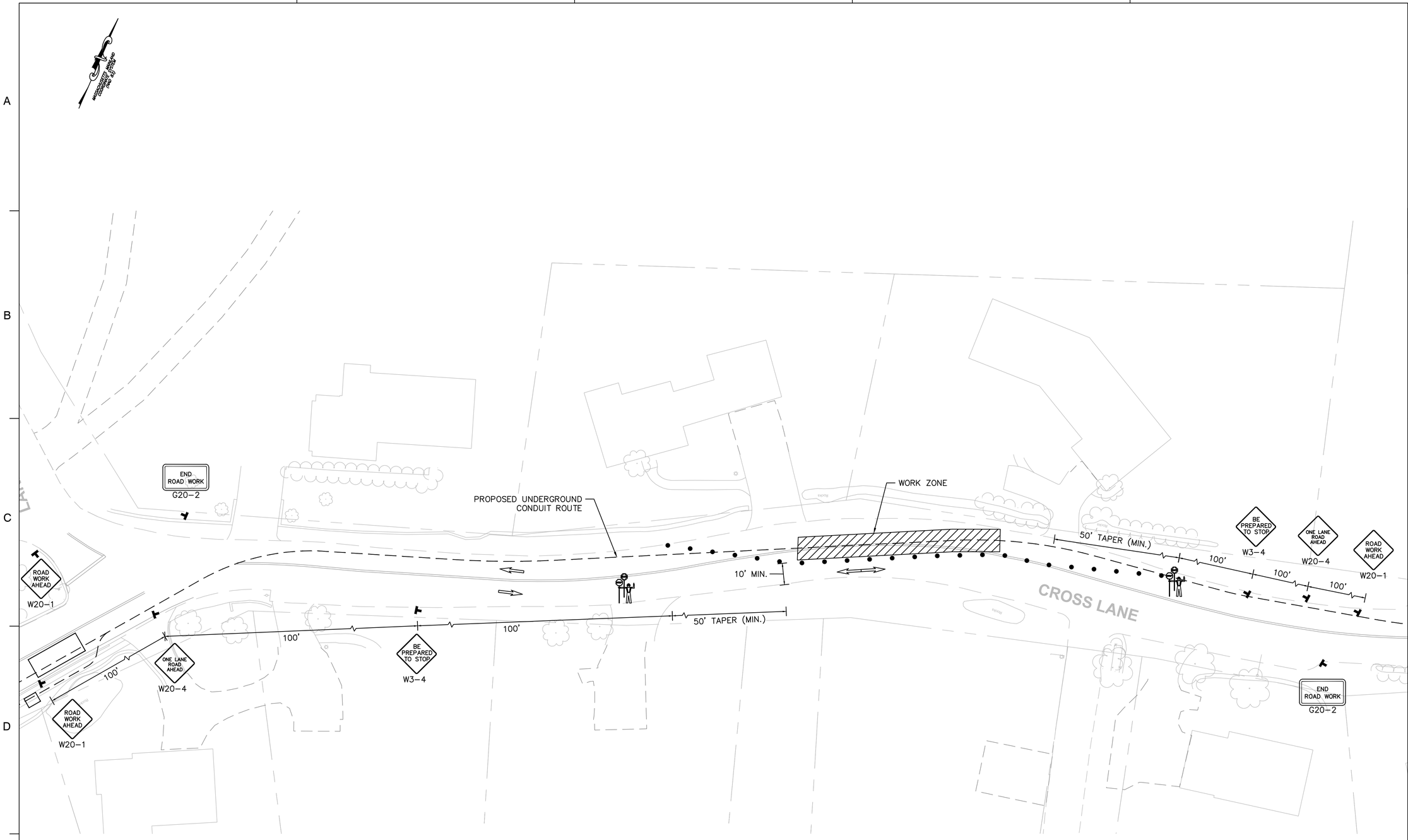

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-105**

TABLE 6C–1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C–3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE–TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C–4 TO CALCULATE L

TABLE 6C–4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-106**

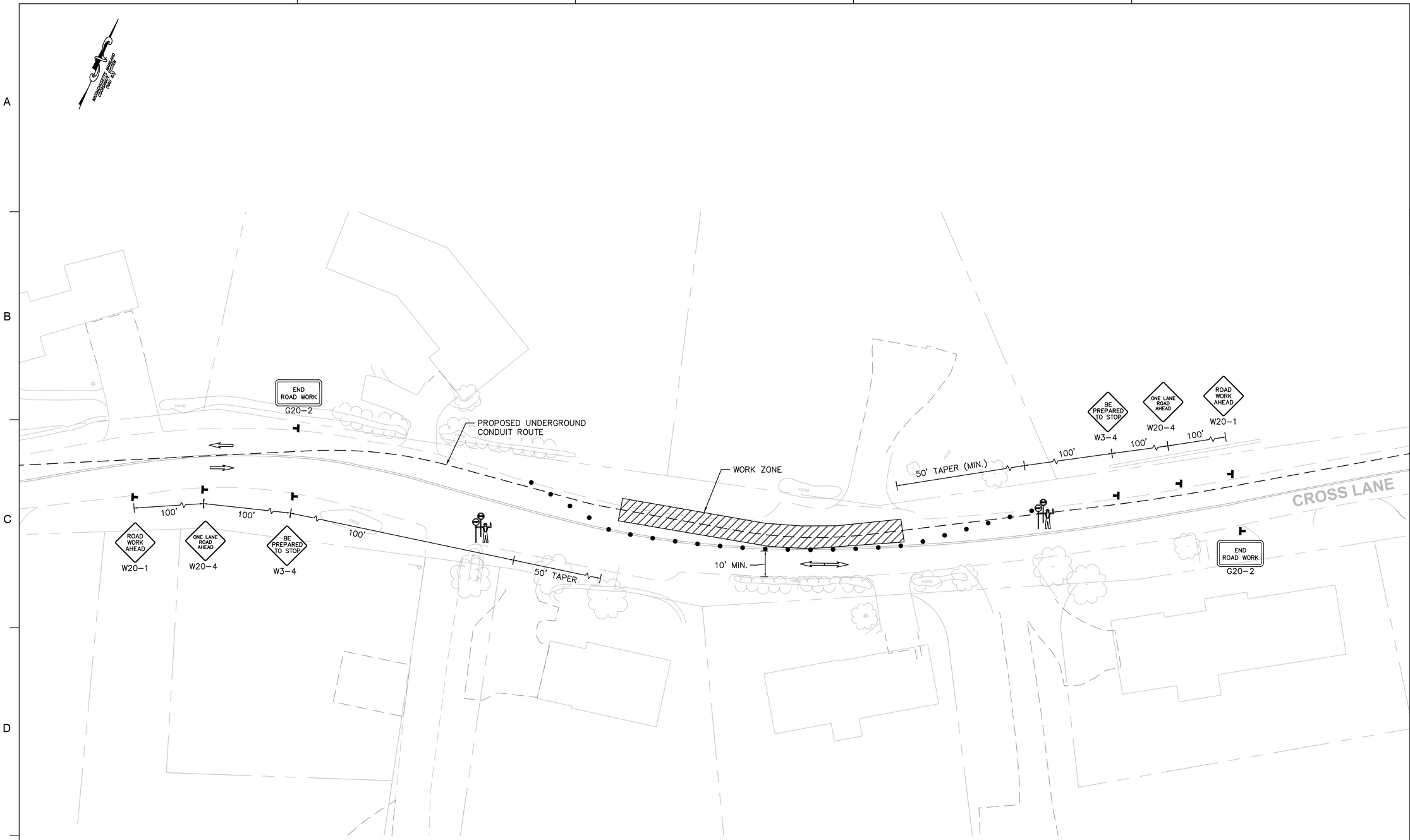

TABLE 6C–1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C–3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE–TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C–4 TO CALCULATE L

TABLE 6C–4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L= WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-107**

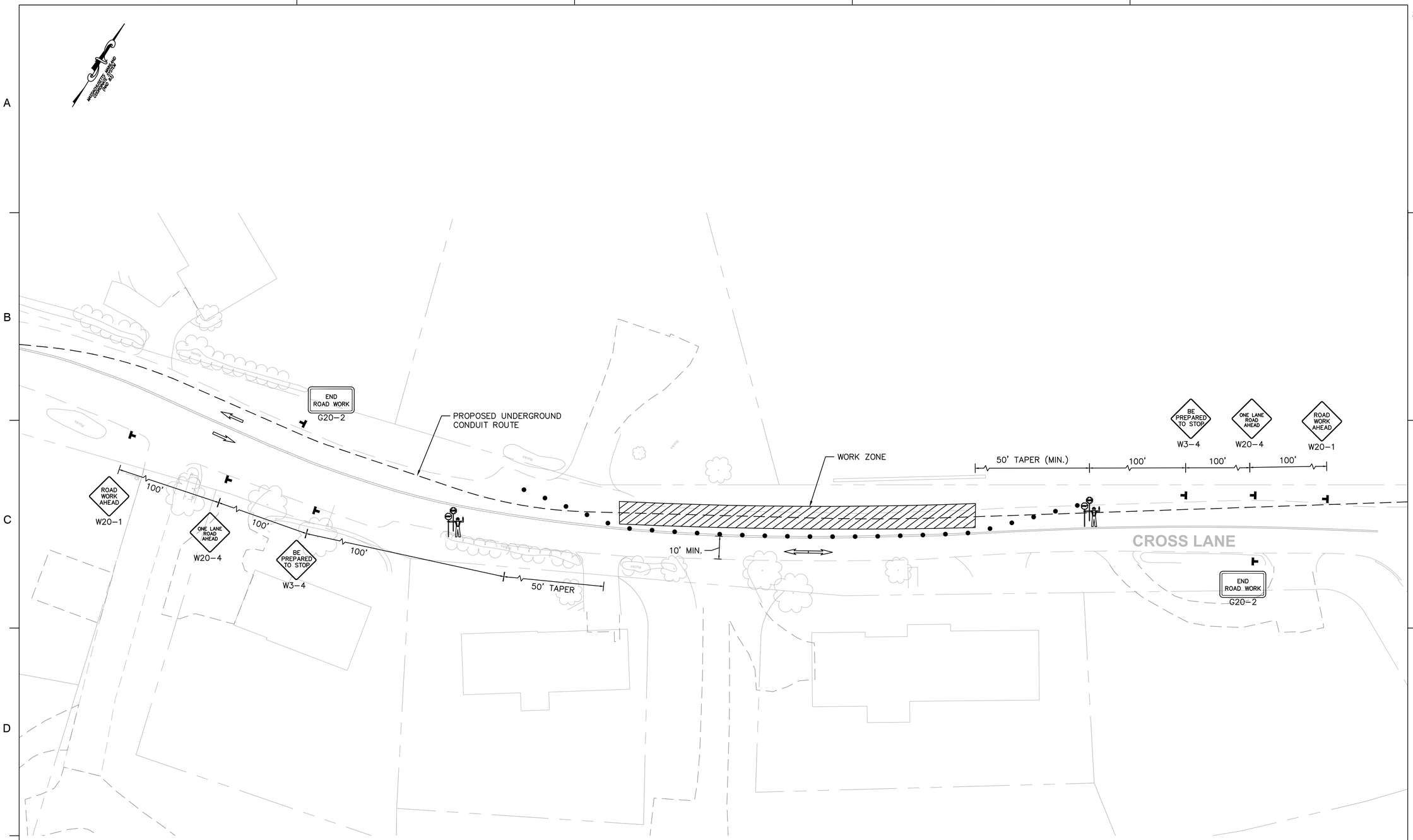

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L= WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-108**

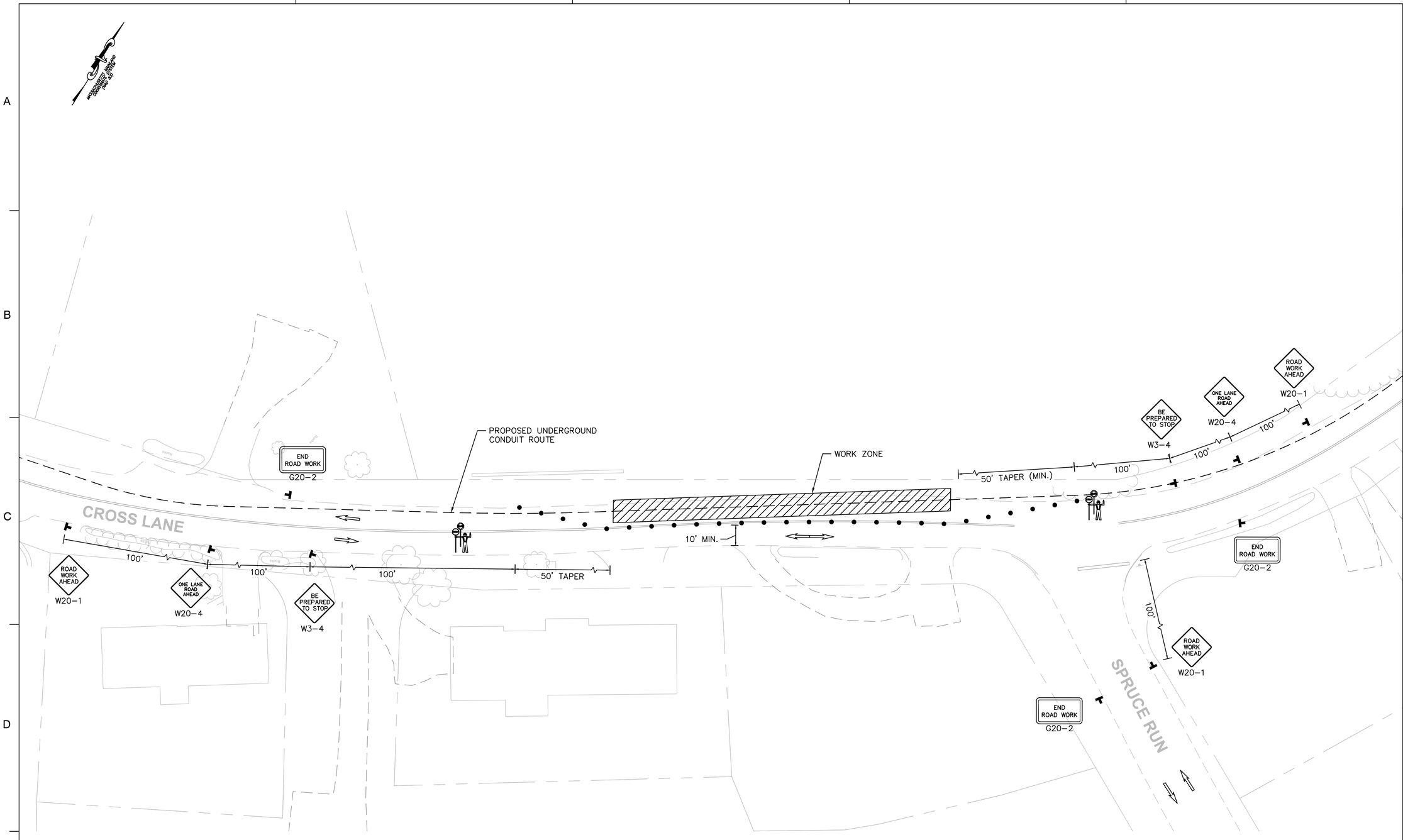

TABLE 6C–1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C–3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
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DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C–4 TO CALCULATE L

TABLE 6C–4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-109**

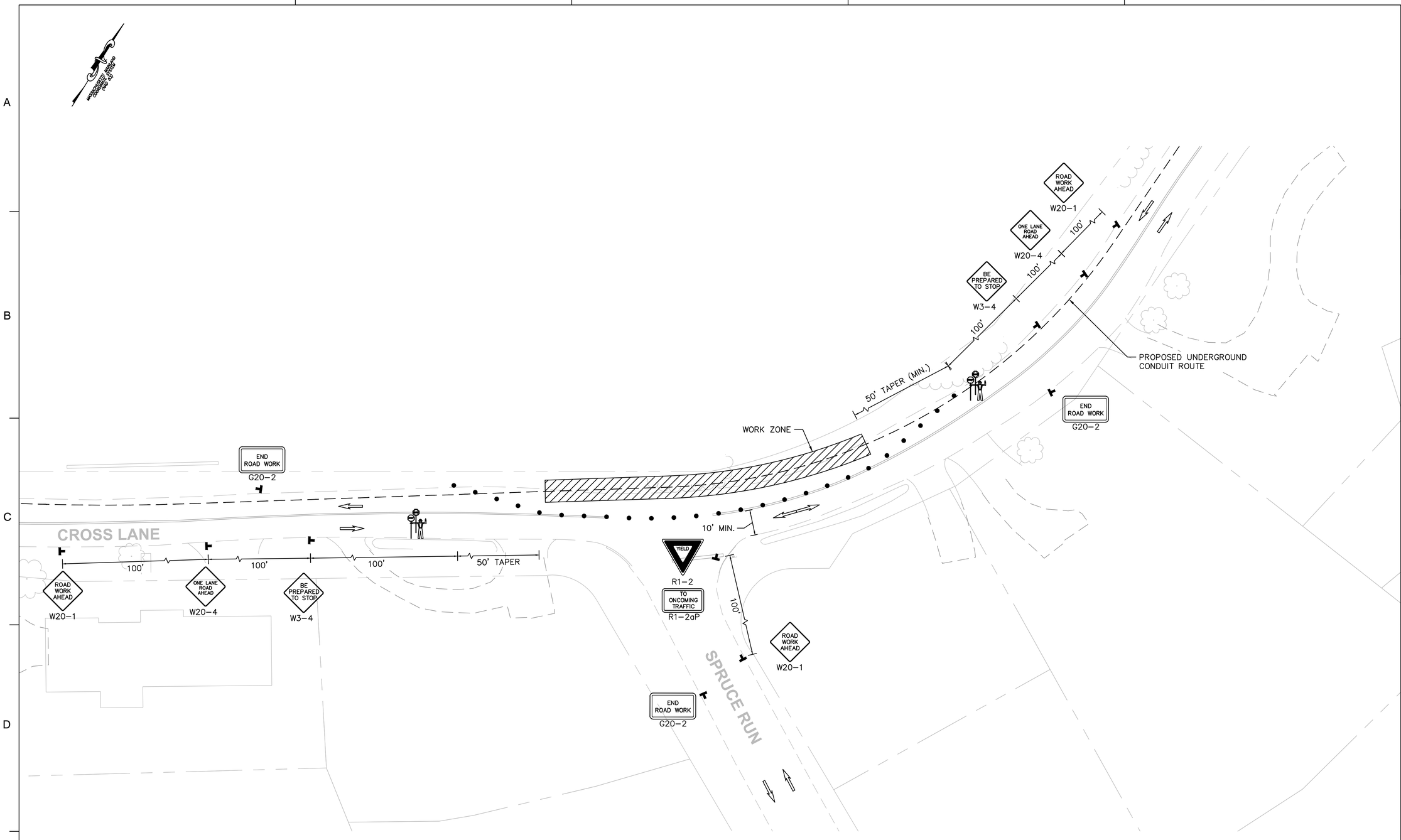

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
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SHIFTING TAPER	AT LEAST 0.5 L
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DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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20 10 0 20 40

1"=20'
HORIZONTAL SCALE

No.	DATE	BY	Description

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CHECKED BY AZ
DATE 11/25/2020

TITLE

TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-110**

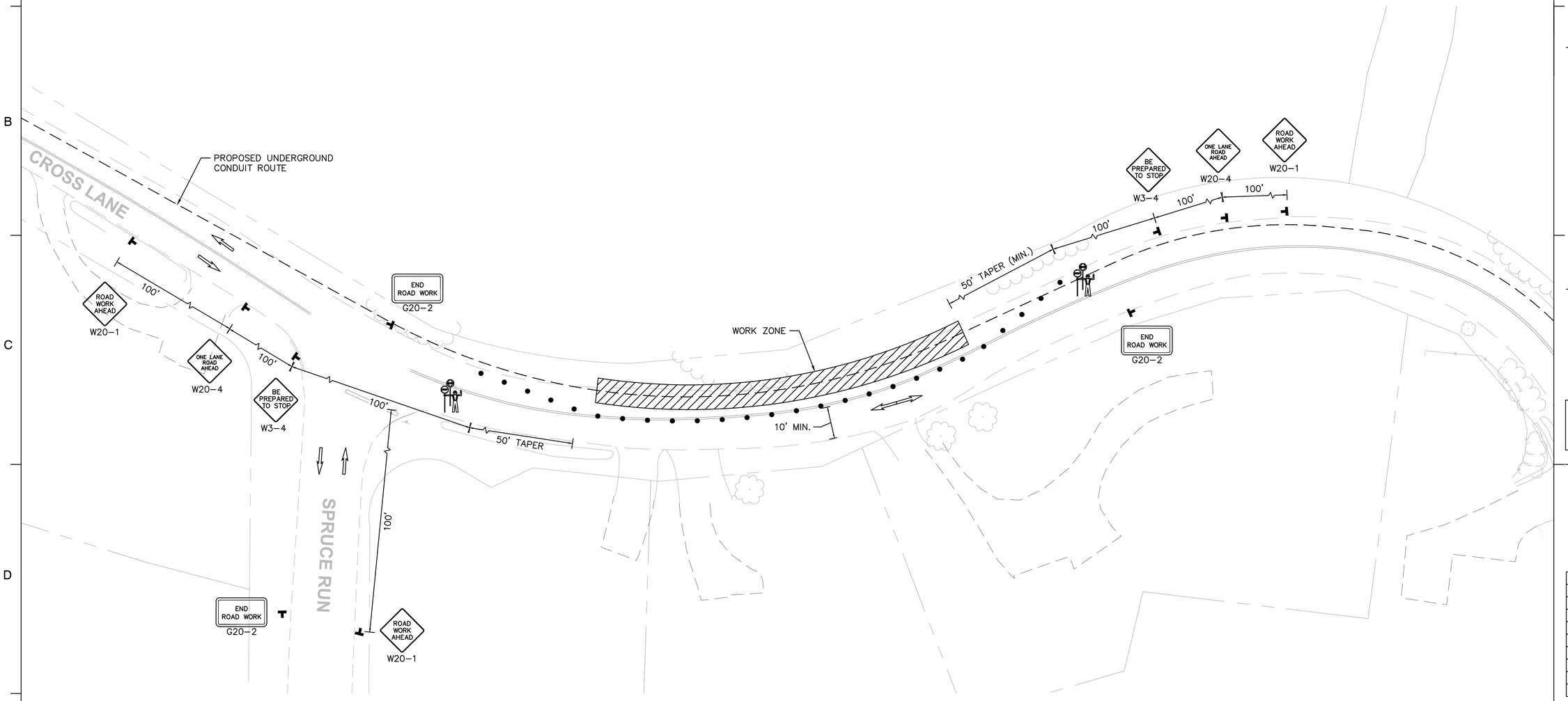

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-111**

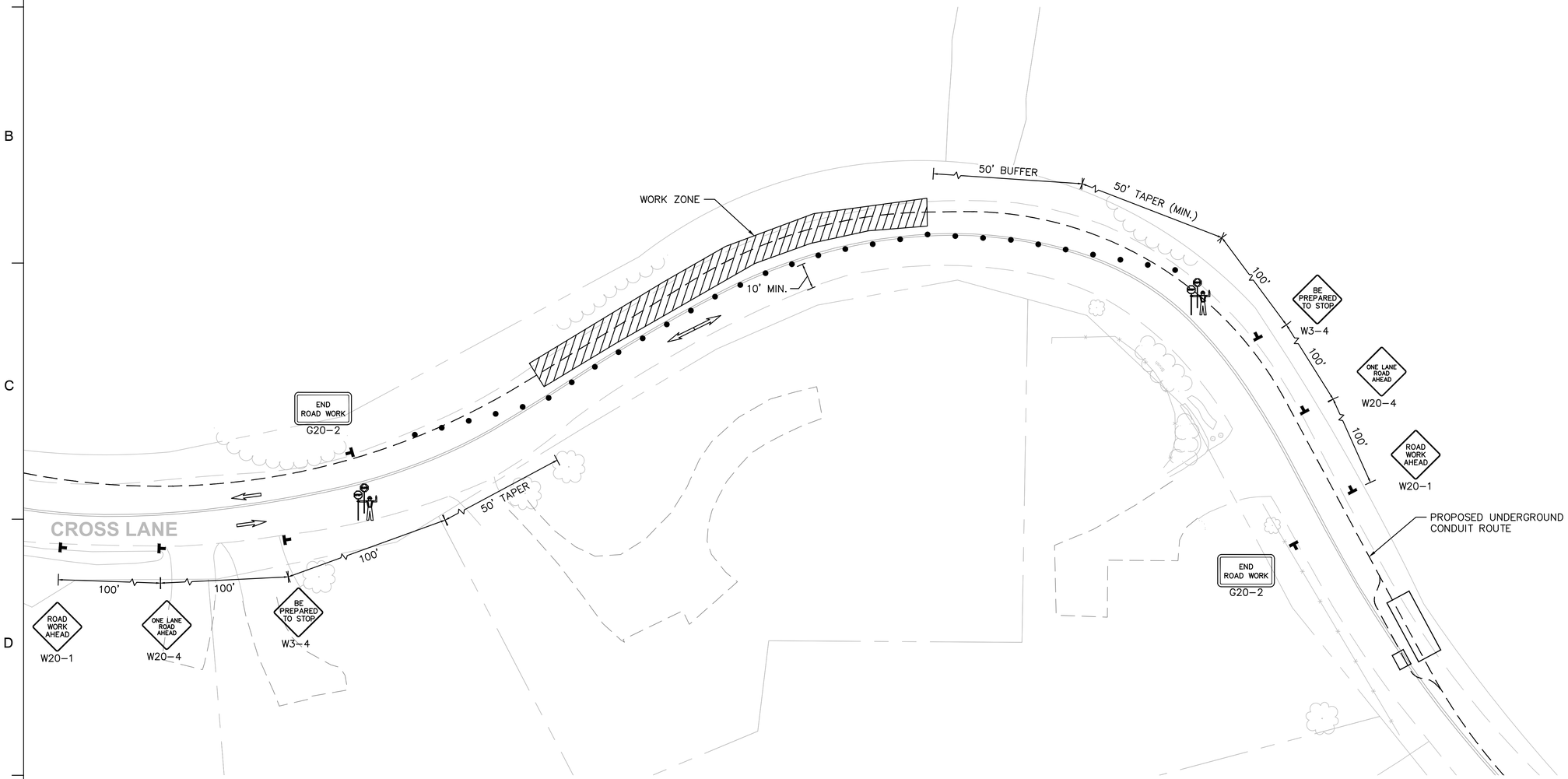

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

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MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L= WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-112**

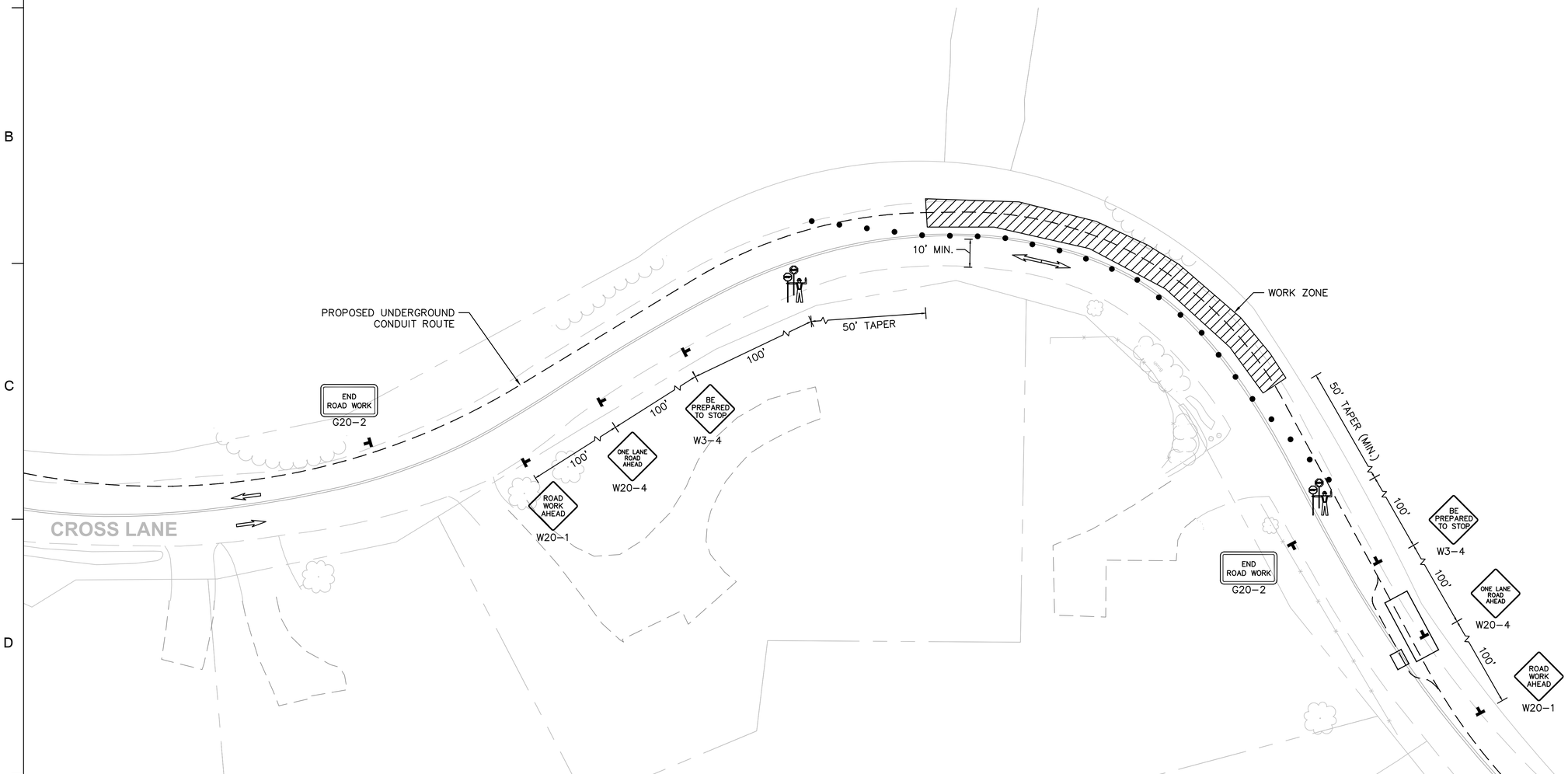

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-113**

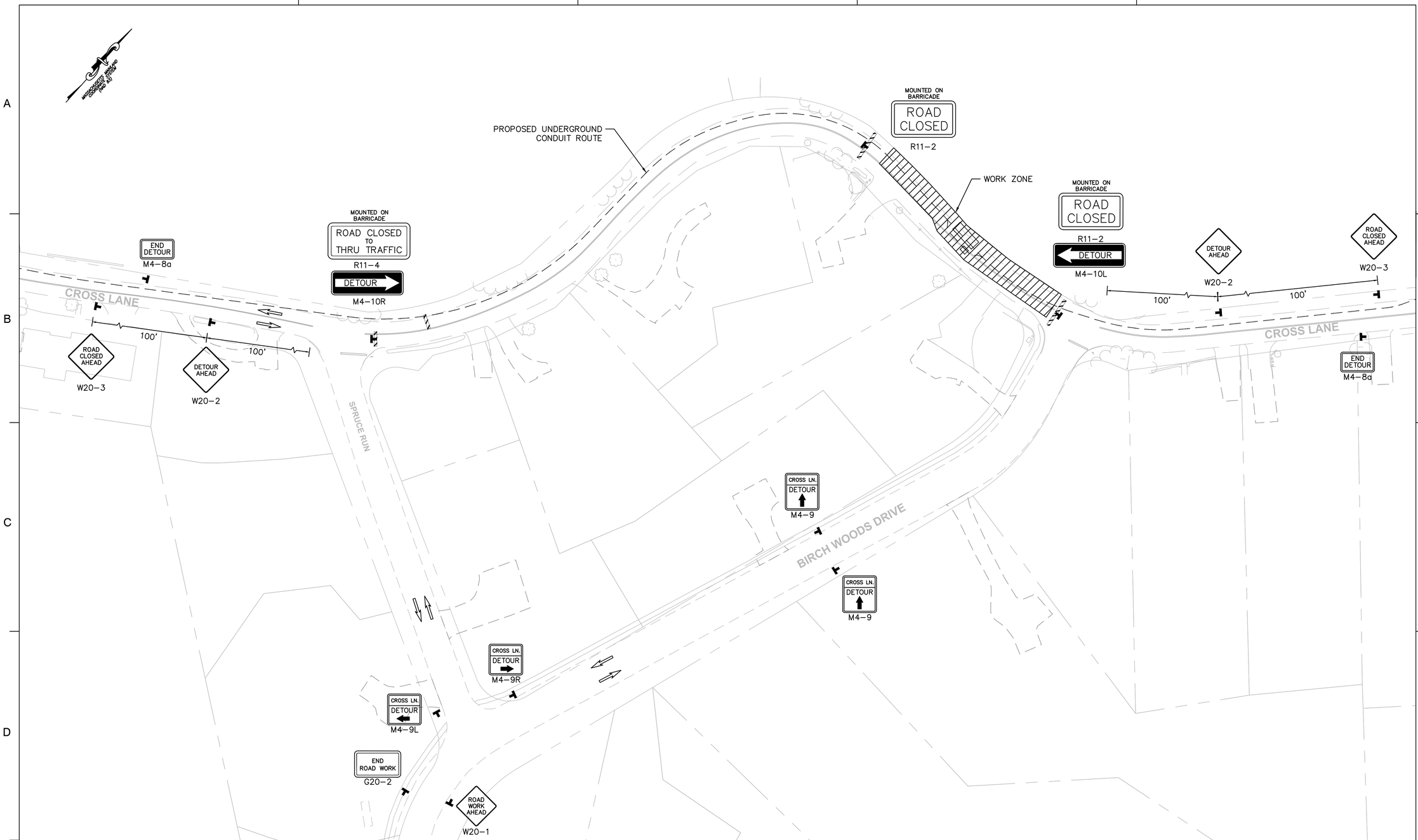

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
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DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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DATE	11/25/2020

TITLE

TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-114**

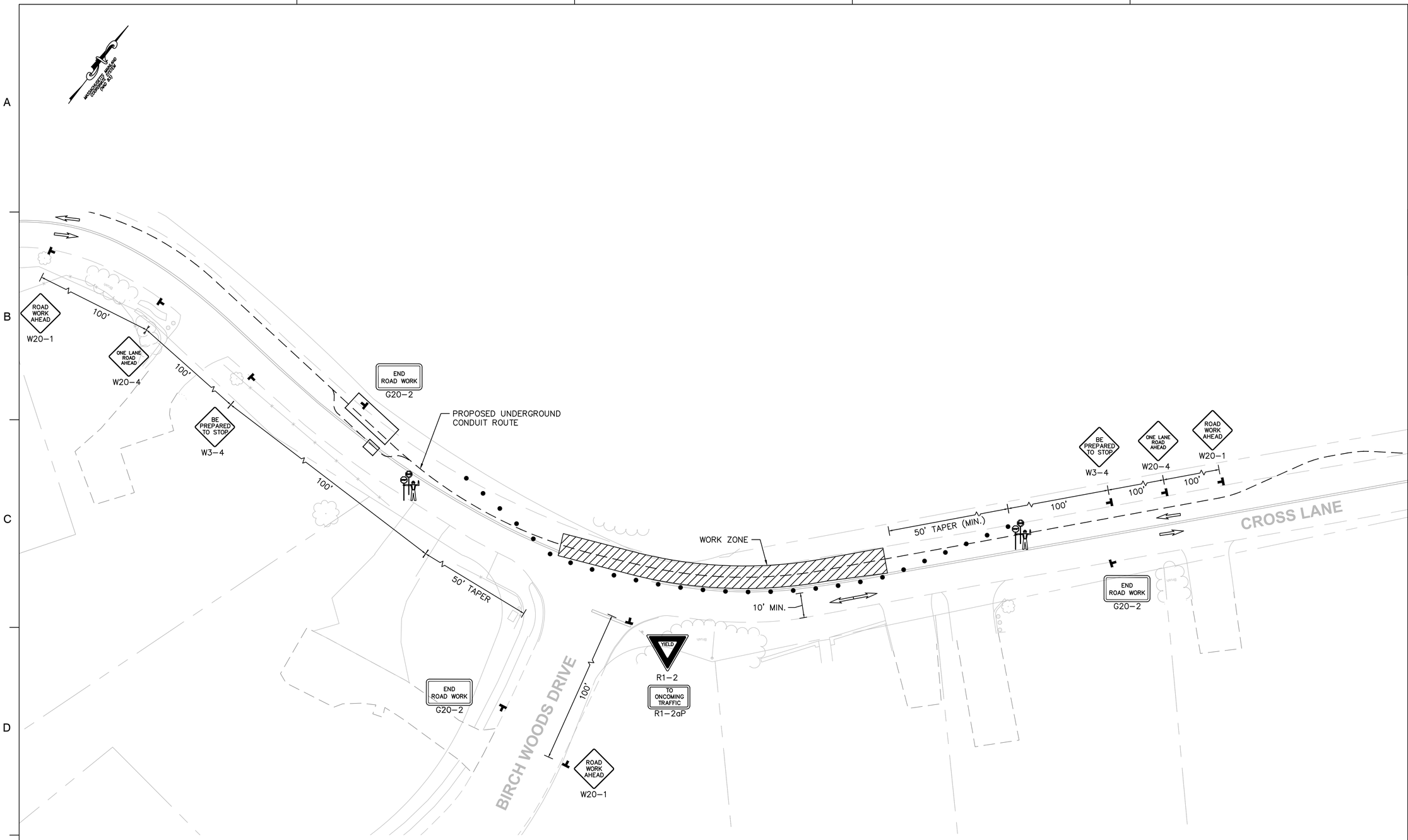

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L= WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-115**

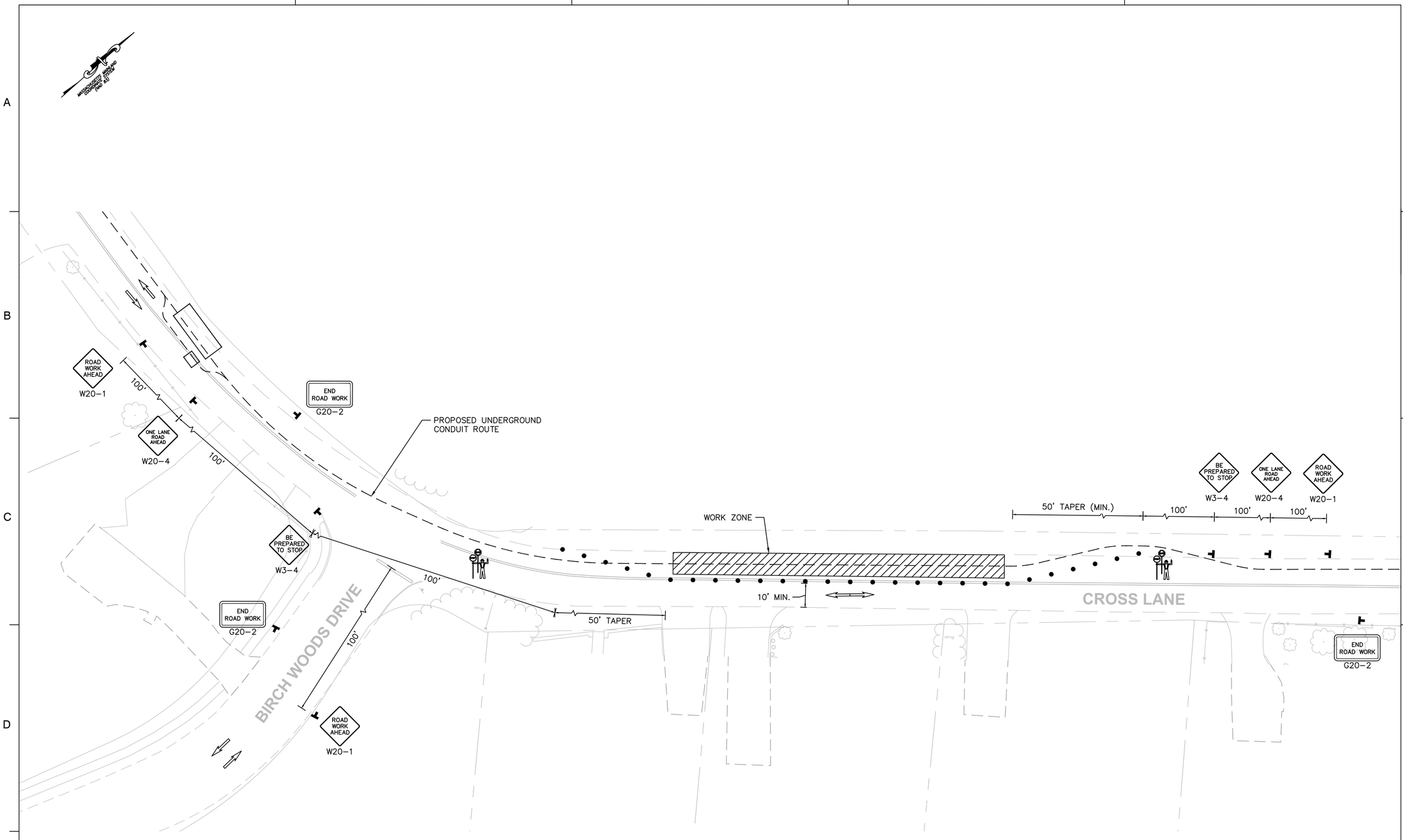

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-116**

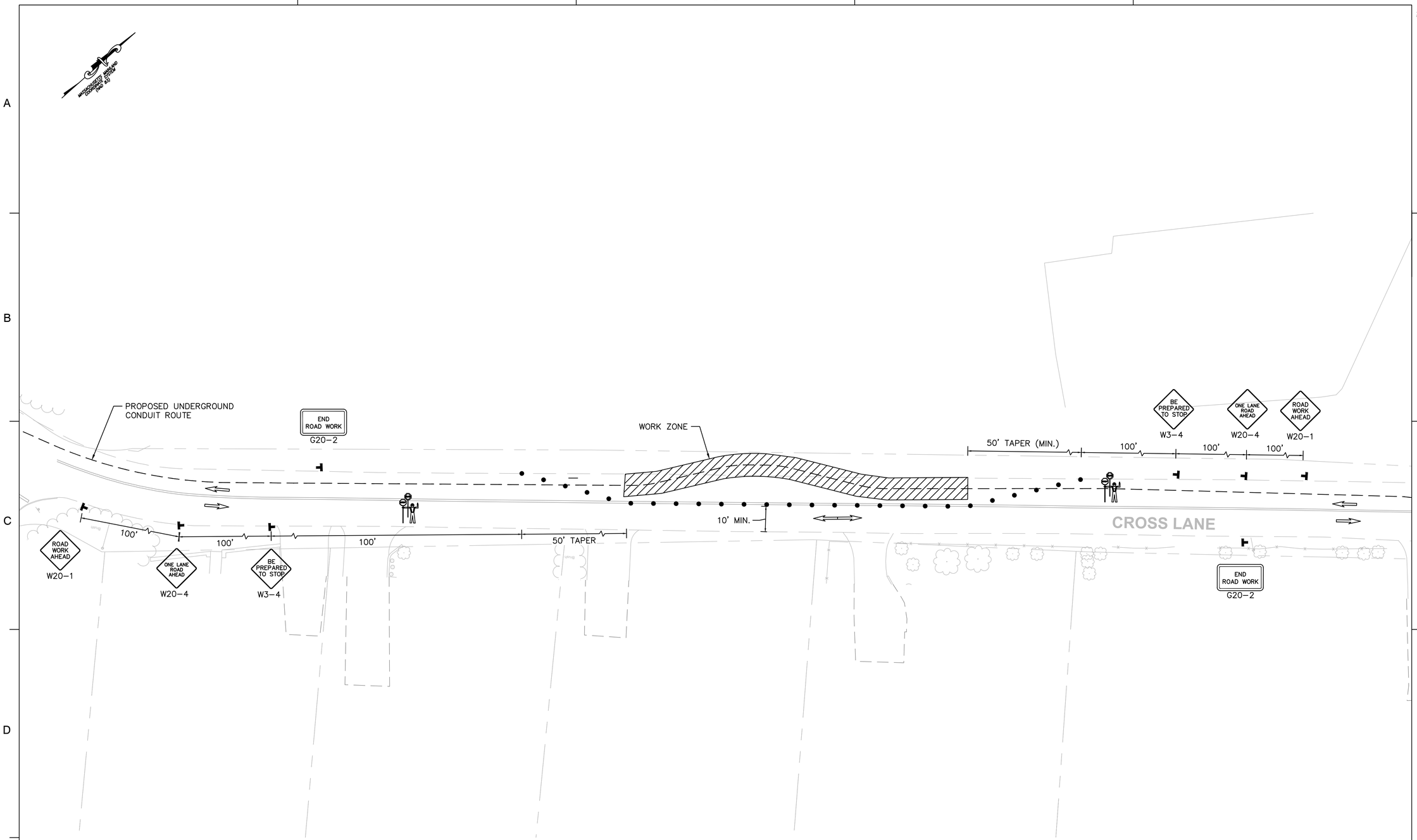

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
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SHOULDER TAPER	AT LEAST 0.33 L
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DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-117**

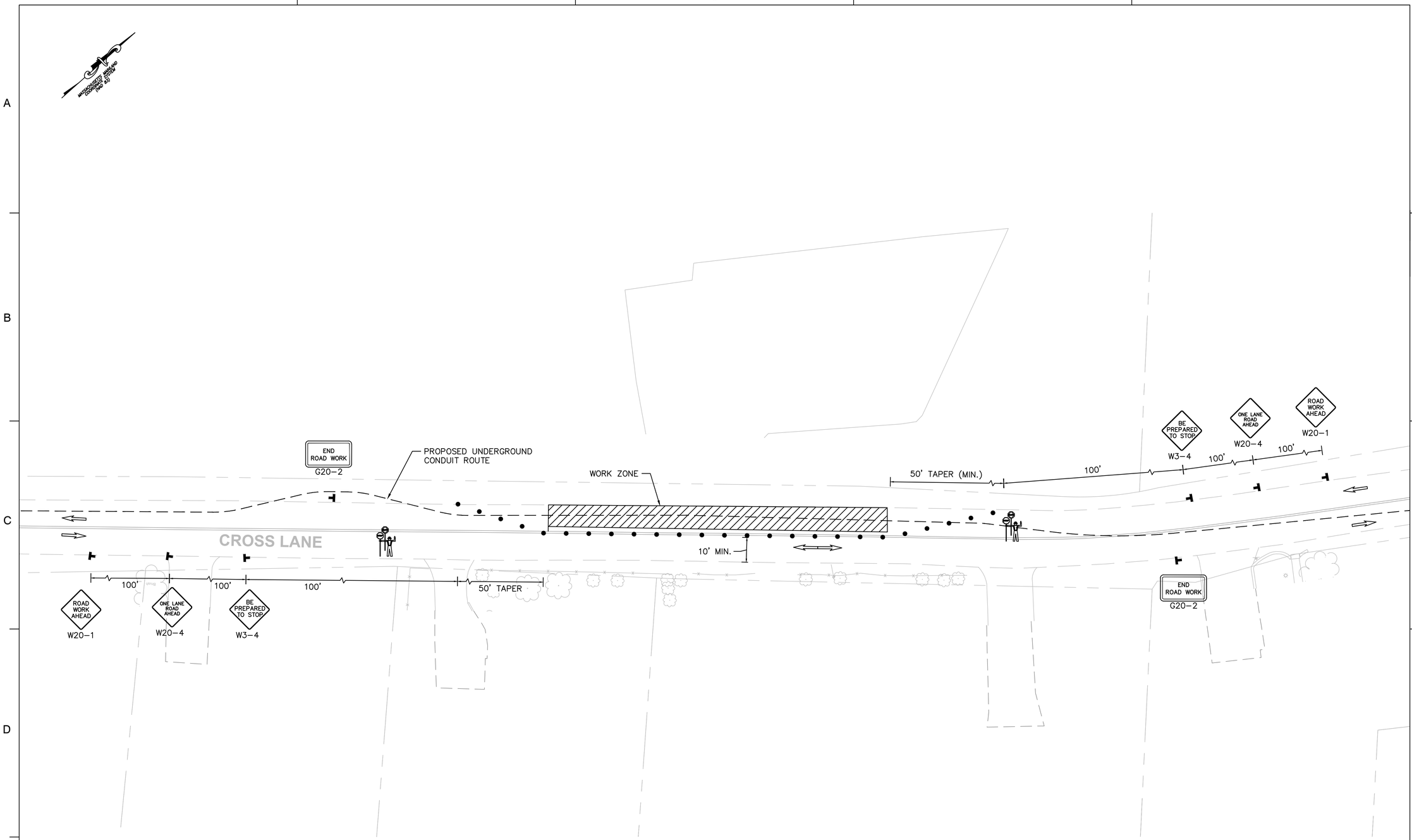

TABLE 6C–1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C–3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
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USE TABLE 6C–4 TO CALCULATE L

TABLE 6C–4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-118**

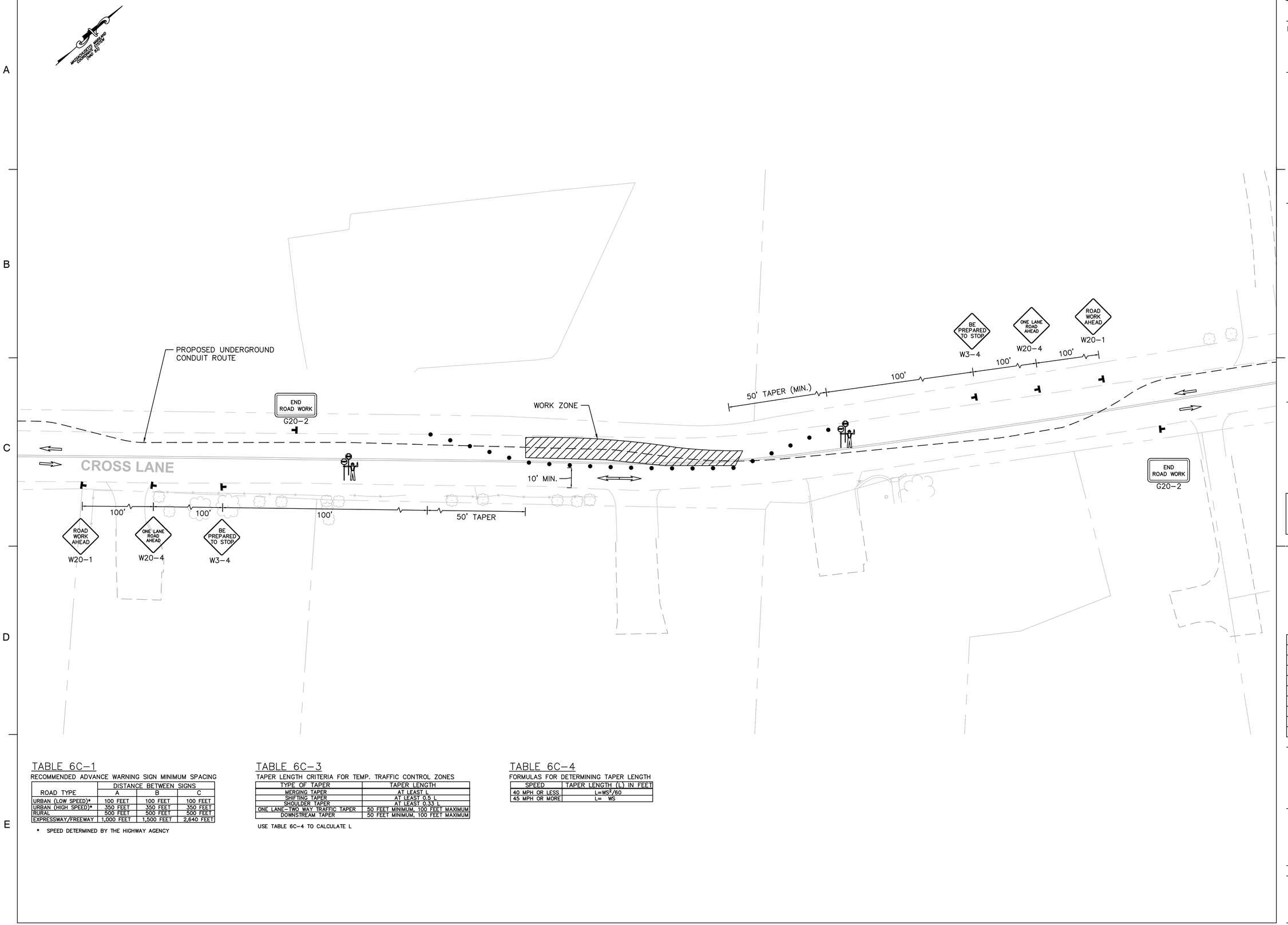

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
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* SPEED DETERMINED BY THE HIGHWAY AGENCY

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TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

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DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L= WS$

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No.	DATE	BY	Description

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DATE 11/25/2020

TITLE

TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-119**

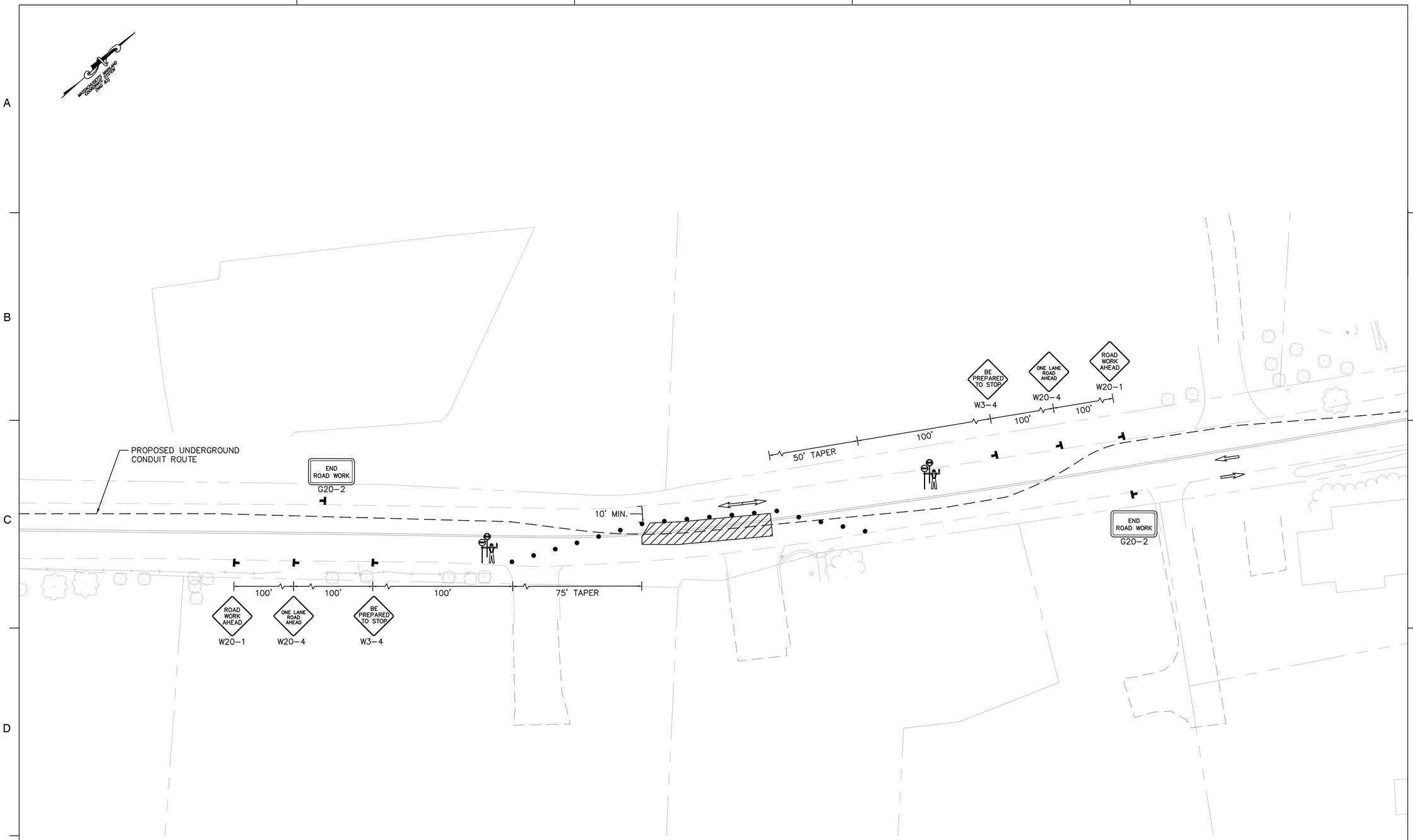

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L= WS$

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DATE 11/25/2020

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-120**

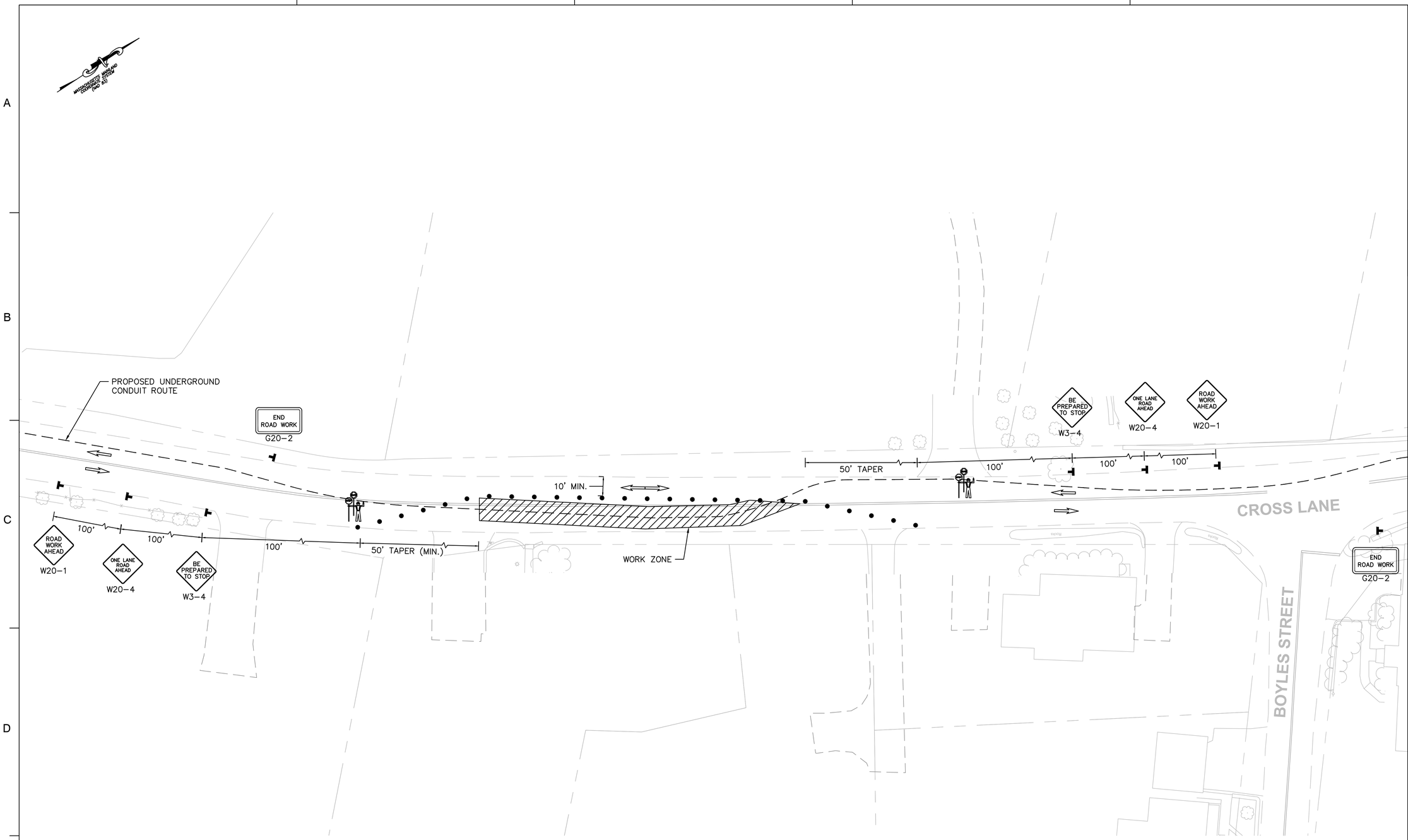

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-121**

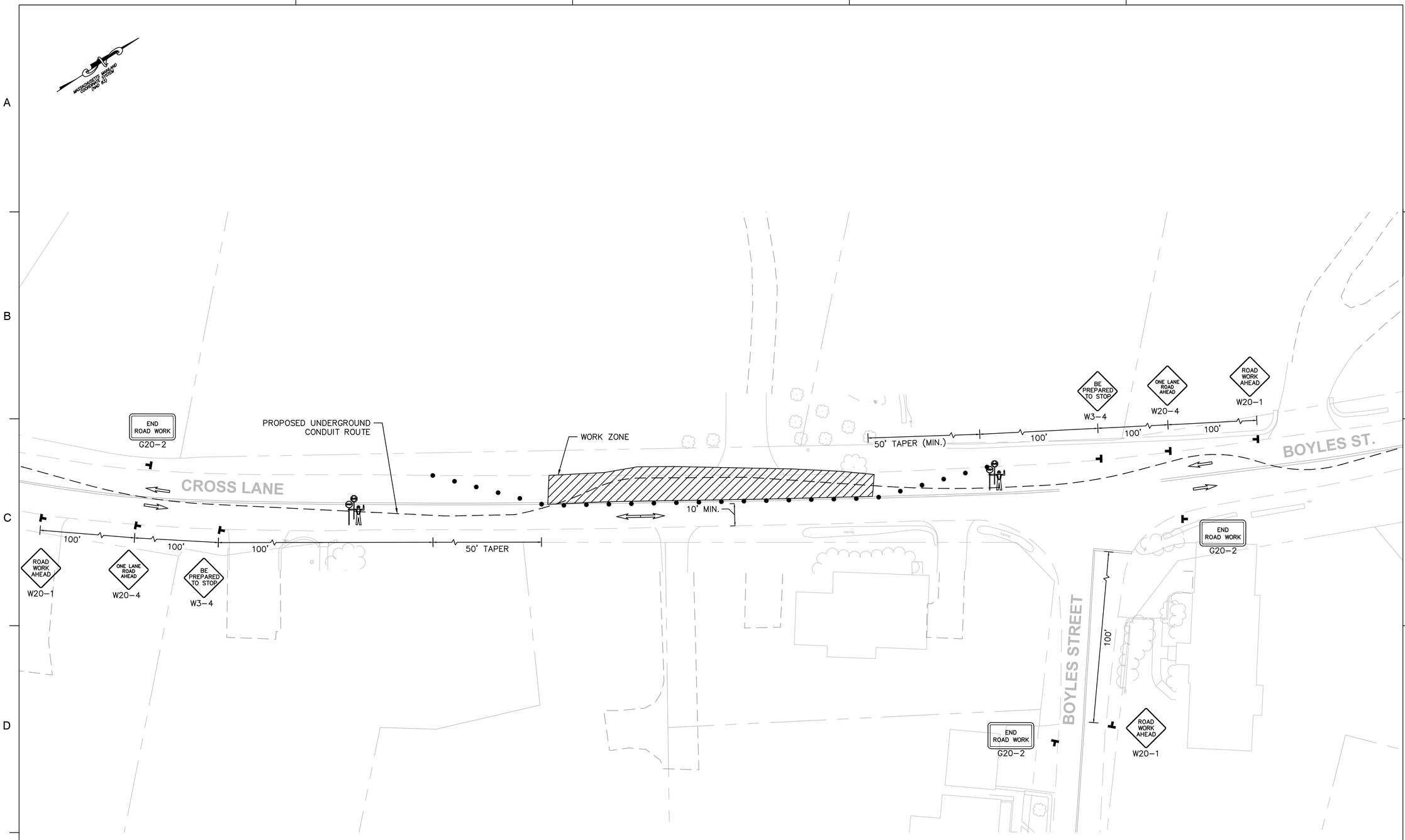

TABLE 6C–1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C–3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE–TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C–4 TO CALCULATE L

TABLE 6C–4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-122**

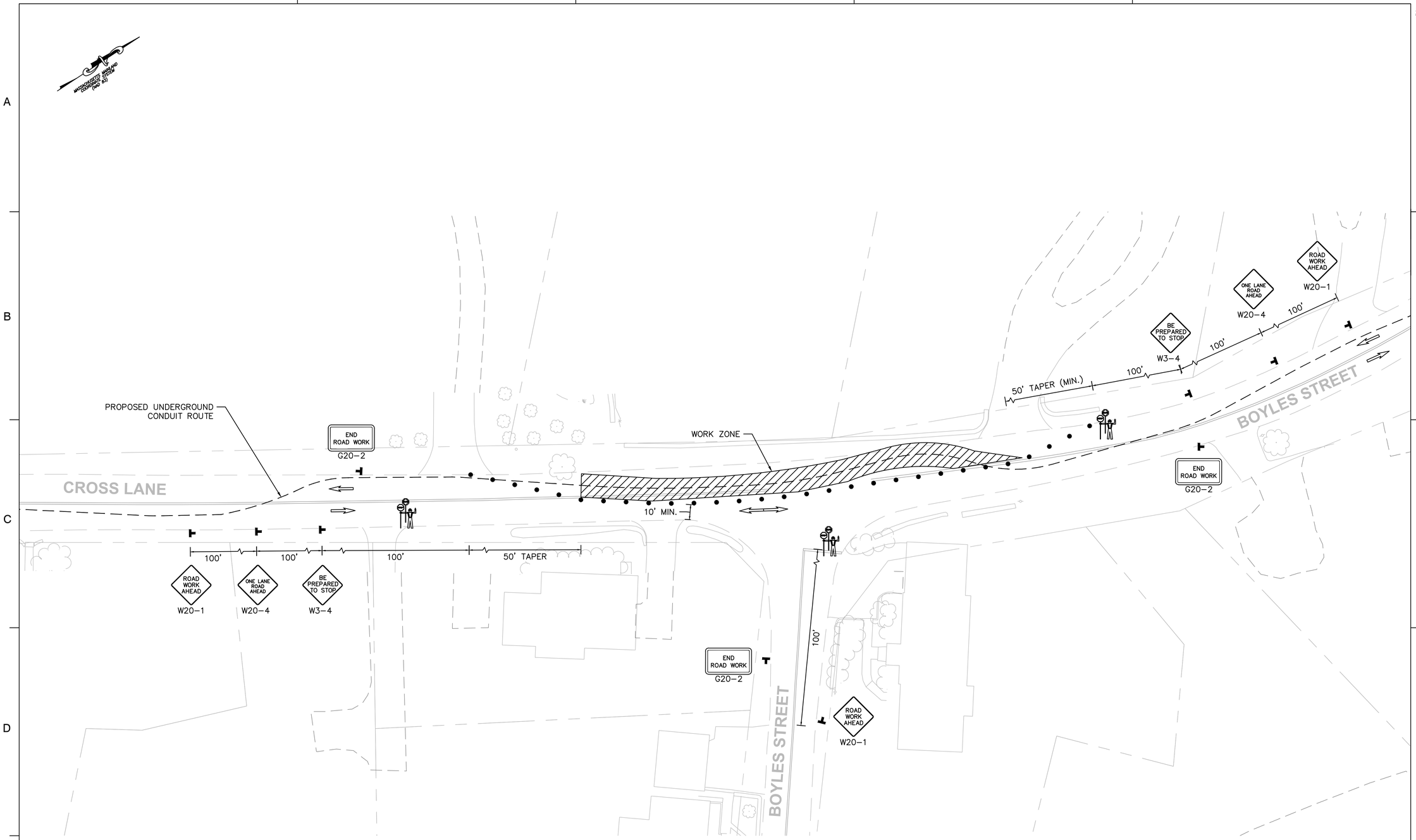

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-123**

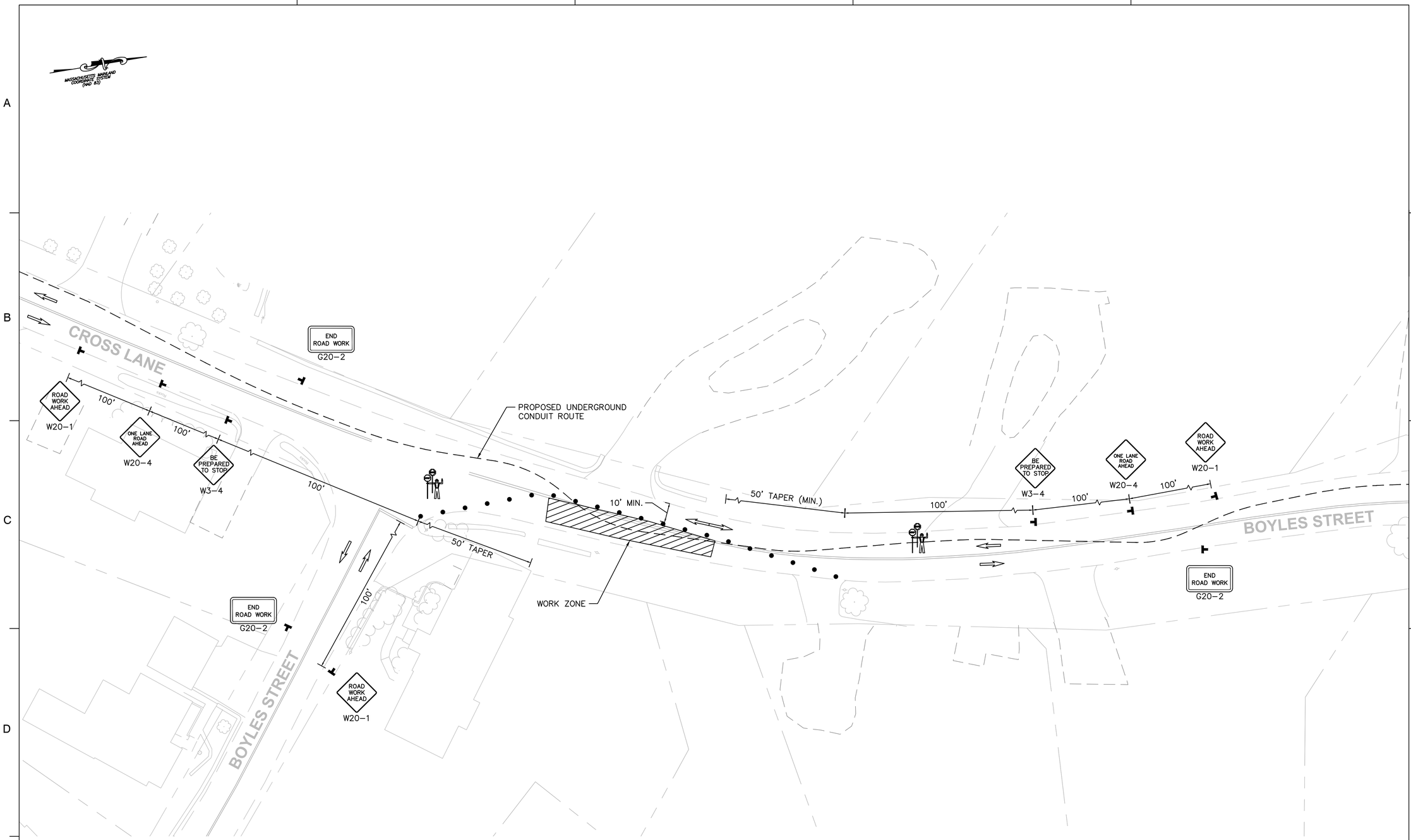

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-124**

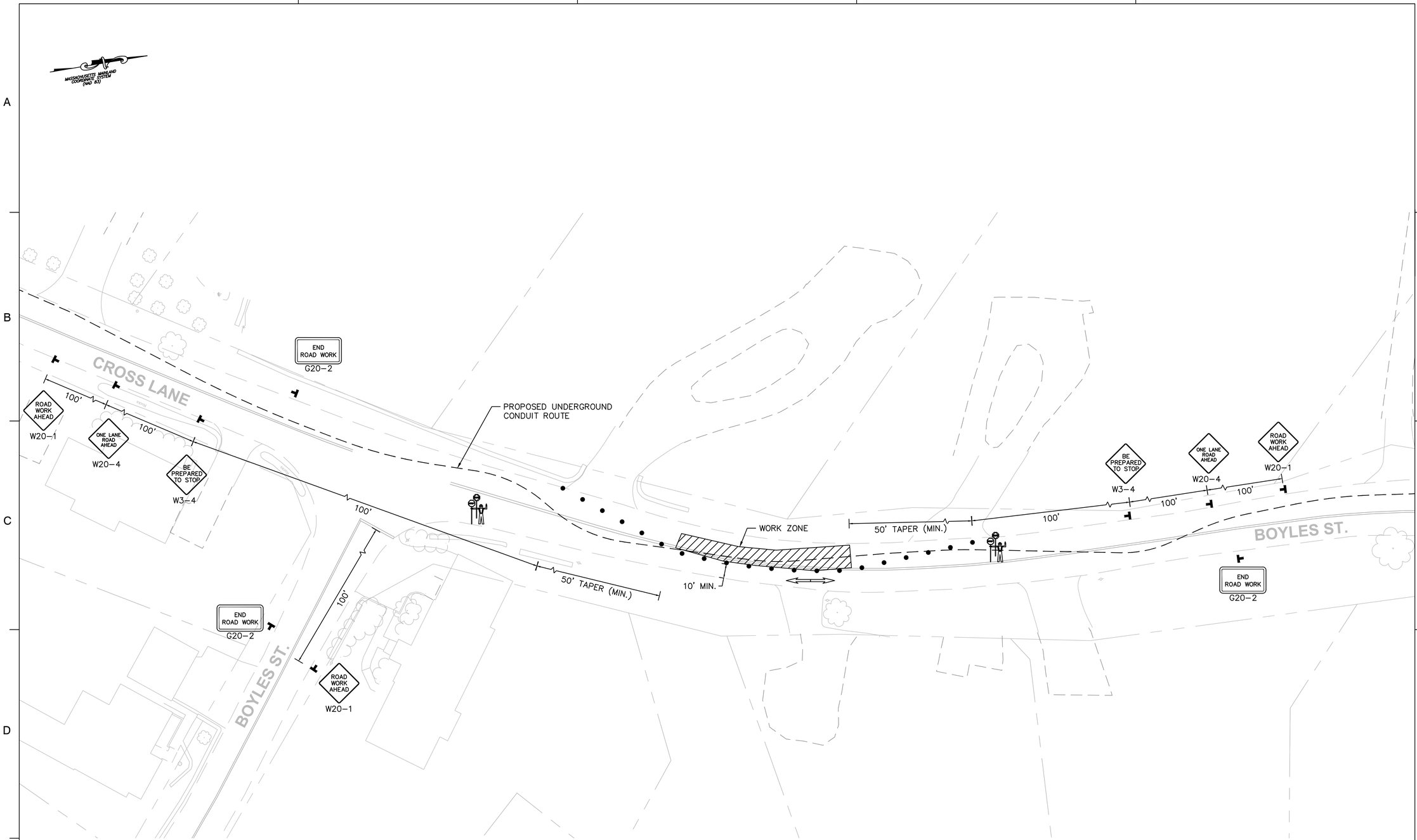

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-125**

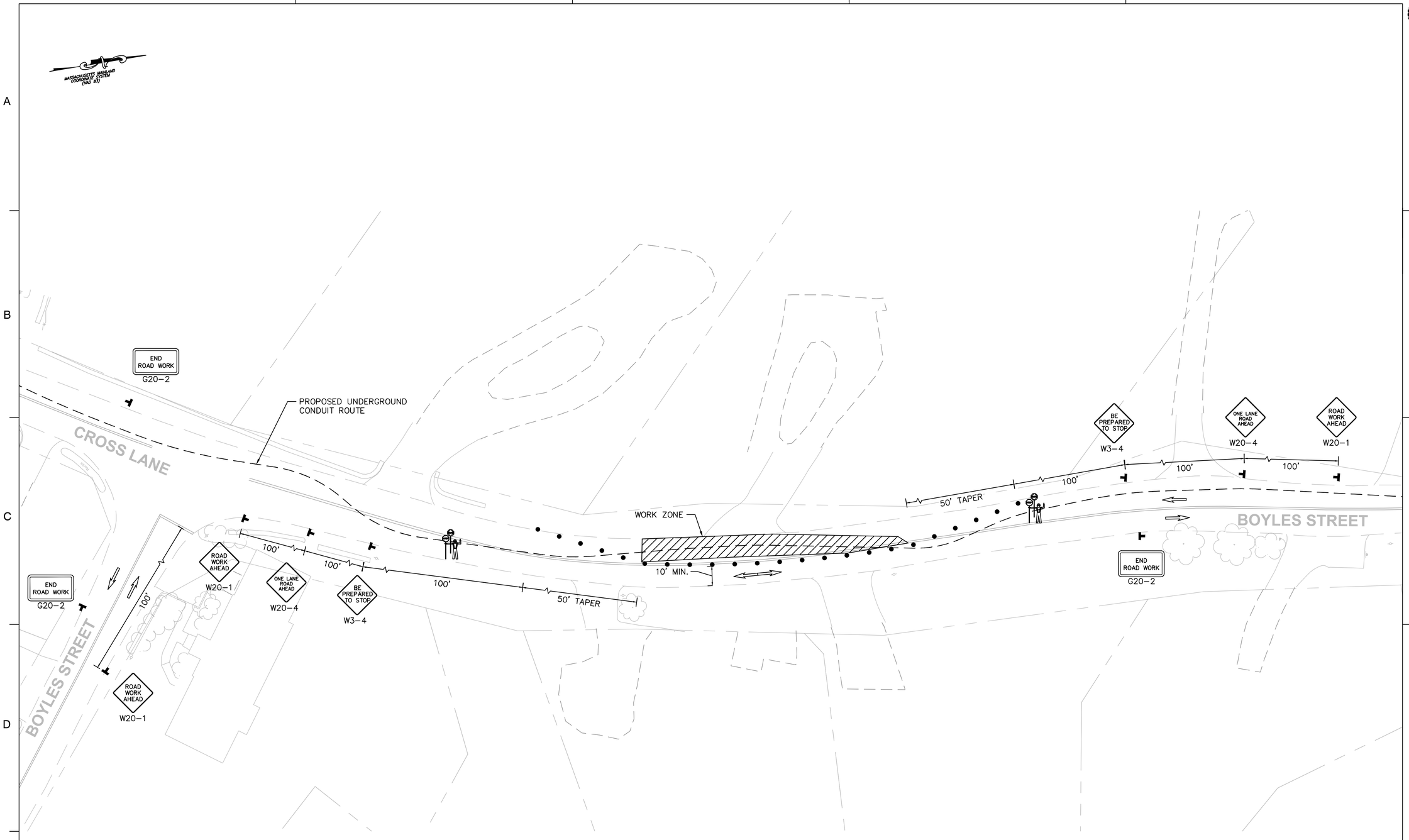

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-126**

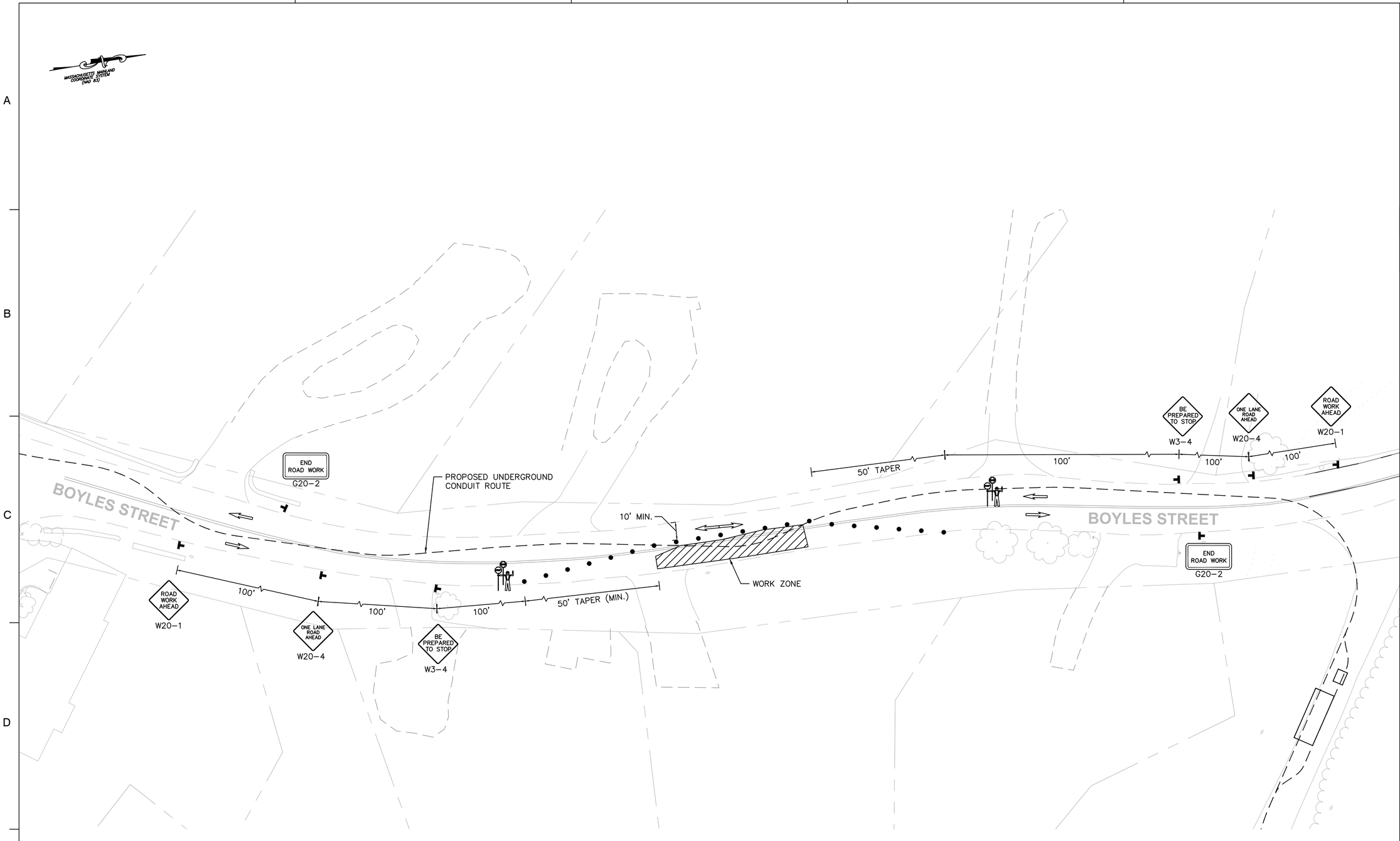

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L= WS$

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TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-127**

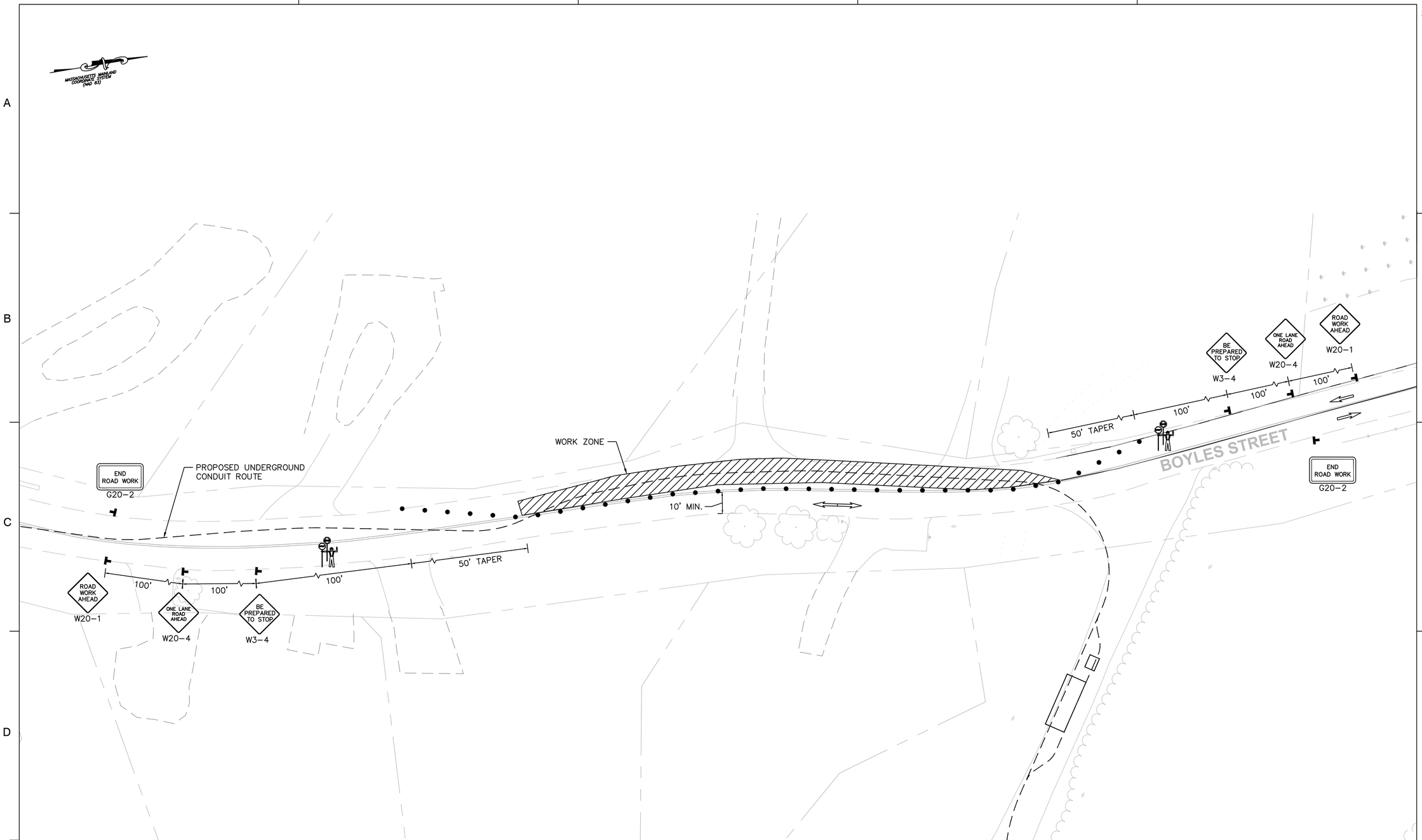

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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TITLE

TRAFFIC MANAGEMENT PLAN

DEWBERRY JOB NO. 50102953

SHEET NO. **TMP-128**

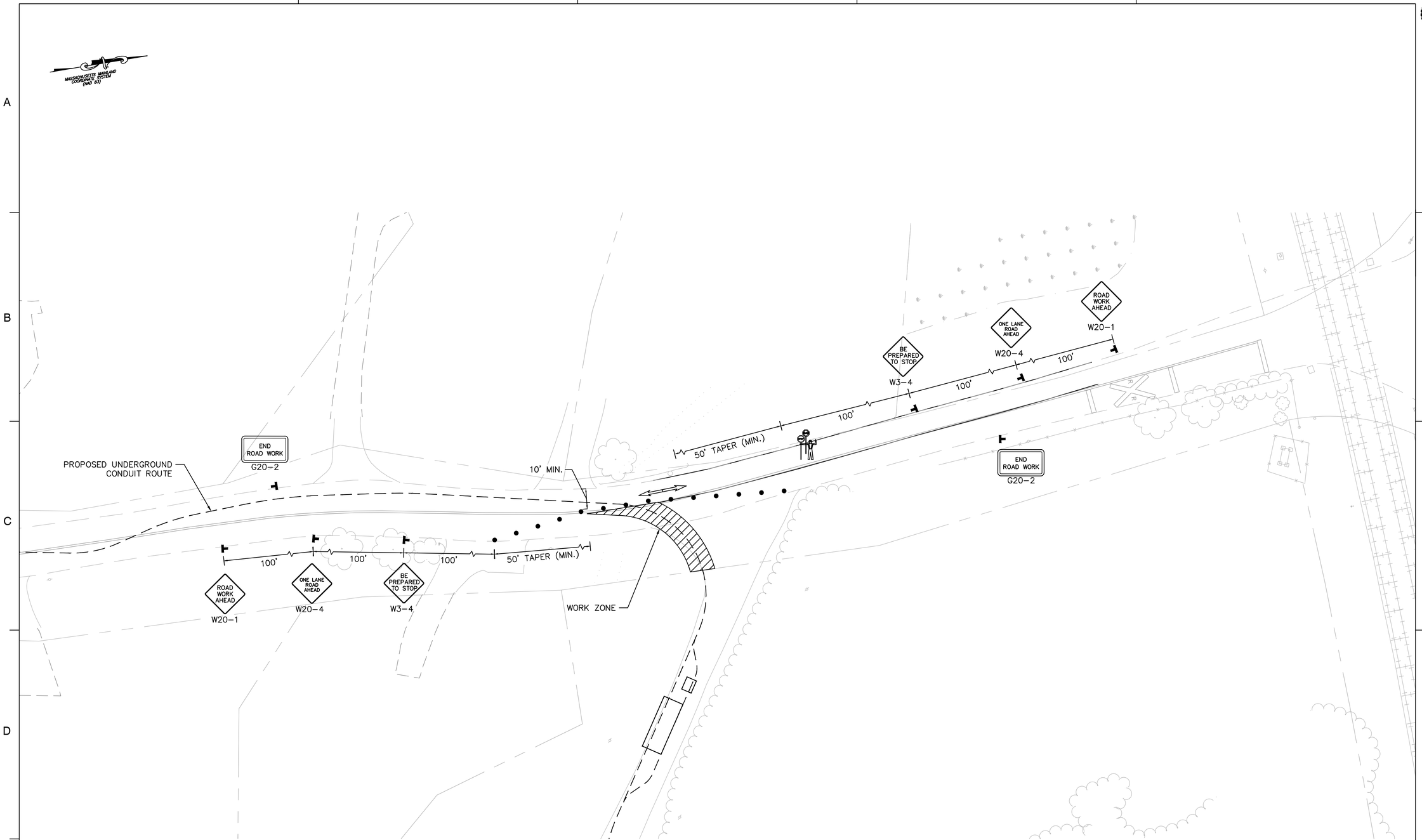

TABLE 6C-1

RECOMMENDED ADVANCE WARNING SIGN MINIMUM SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN (LOW SPEED)*	100 FEET	100 FEET	100 FEET
URBAN (HIGH SPEED)*	350 FEET	350 FEET	350 FEET
RURAL	500 FEET	500 FEET	500 FEET
EXPRESSWAY/FREEWAY	1,000 FEET	1,500 FEET	2,640 FEET

* SPEED DETERMINED BY THE HIGHWAY AGENCY

TABLE 6C-3

TAPER LENGTH CRITERIA FOR TEMP. TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5 L
SHOULDER TAPER	AT LEAST 0.33 L
ONE LANE-TWO WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

USE TABLE 6C-4 TO CALCULATE L

TABLE 6C-4

FORMULAS FOR DETERMINING TAPER LENGTH

SPEED	TAPER LENGTH (L) IN FEET
40 MPH OR LESS	$L=WS^2/60$
45 MPH OR MORE	$L=WS$

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OWNER

nationalgrid

40 SYLVAN ROAD,
UNDERGROUND TRANSMISSION
WALTHAM, MA 02451

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NATIONAL GRID
BEVERLY REGIONAL
TRANSMISSION RELIABILITY PROJECT
SALEM & BEVERLY, MA

SEAL

BID SET
NOT FOR CONSTRUCTION
ISSUED ON 11/25/2020

SCALE

20 10 0 20 40
1"=20'
HORIZONTAL SCALE

No.	DATE	BY	Description

REVISIONS

DRAWN BY SCA
APPROVED BY AZ
CHECKED BY AZ
DATE 11/25/2020

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