



Providence Bicycle and Pedestrian Advisory Commission

Jorge O. Elorza, Mayor

Staff Report: Douglas Avenue Restriping Preliminary Plan Review – Smith Hill, Wanskuck – Wards 4, 12, 14 (For Action)

Presented at March 28, 2018 BPAC meeting

Project Background

The City of Providence Department of Public Works seeks comments from the BPAC regarding the potential restriping of Douglas Avenue.

In April 2016, BPAC reviewed conceptual plans for Douglas Ave restriping. Recommendations at the time were:

- The center median area proposed between Chad Brown Street and Crimea Street should be removed and that space instead be allocated to provide 6' wide bike lanes and a painted buffer area between the parking lane and the bike lane
- Proper bike lane stencils should be painted within the bike lane, not sharrows
- The proposed bike lanes should be extended from the intersection with Chalkstone Avenue all the way to Orms Street
- The proposed bike lanes should be extended from the intersection with Chad Brown Street, north to Eaton Street to connect with future expansion of bike lanes on Eaton Street and the Providence College campus
- Crosswalks should be striped on all four side of the intersection of Douglas Avenue and Chalkstone Avenue and at all other signalized intersections along Douglas Avenue
- Parking should be removed along one side of Douglas Avenue from Eaton Street to the City Line
- A one-way bike lane should be striped for bicyclists traveling north-west toward the City Line
- Southbound bicyclists should be accommodated through a future bike lane on Admiral Street.

City staff worked with design consultants to produce design alternatives based on these recommendations where feasible. One alternative includes bike lanes between Vale Street and Fillmore Street, and does not include any removal of on-street parking. The second alternative includes bike lanes between Eaton Street and Orms Street, and includes the removal of 19 parking spaces between Orms and Wayne streets and 25 parking spaces between Vale and Camden streets. Neither alternative includes bike lanes north of Eaton Street.



Providence Bicycle and Pedestrian Advisory Commission

Jorge O. Elorza, Mayor

Project Map



Staff recommendations

- Implement design option 2 between Eaton St and Orms St with the following cross-sections (included also on plans attached at end of this staff report):
 - Orms to Goddard = 30 ft wide





Providence Bicycle and Pedestrian Advisory Commission

Jorge O. Elorza, Mayor

- Goddard to Wayne = 31 ft wide



- Wayne to Chalkstone = 38 ft wide



- At Wayne, include dashed lines indicating the mixing zone and directing westbound bicyclists to the floating bike lane.

- Chalkstone to Whipple = 42 ft wide





Providence Bicycle and Pedestrian Advisory Commission

Jorge O. Elorza, Mayor

- Whipple to Crimea = 48 ft wide



- Crimea to Filmore = 50 ft wide
 - Same cross section as above with 6 ft bike lanes instead of 5 ft
- Filmore to Mansfield = 52 ft wide



- Mansfield to Vale = 51 ft wide
 - Same cross section as above with 5.5 ft bike lanes instead of 6 ft
- Vale to Chad Brown = 38 ft wide



- Chad Brown to Camden = 35 ft wide





Providence Bicycle and Pedestrian Advisory Commission

Jorge O. Elorza, Mayor

- Camden to Eaton = 40-45 ft wide



- Widen all 5 lanes by 1 foot over the 66 ft between Camden intersection and stop line at Eaton Street to follow the widening of the roadway.
- Extend the striped extension of the eastern corner of the O'Neil St intersection to narrow the travel lane to 12 ft maximum, reduce the corner radius to encourage slower turning speeds, and more clearly square off the intersection opposite River Ave.
- Include continental-style 2 ft stripe/2 ft gap crosswalks across Douglas Ave at Branch Ave, at O'Neil St/River Ave, and across Admiral St at the eastern approach to Douglas Ave.

Parking Removal

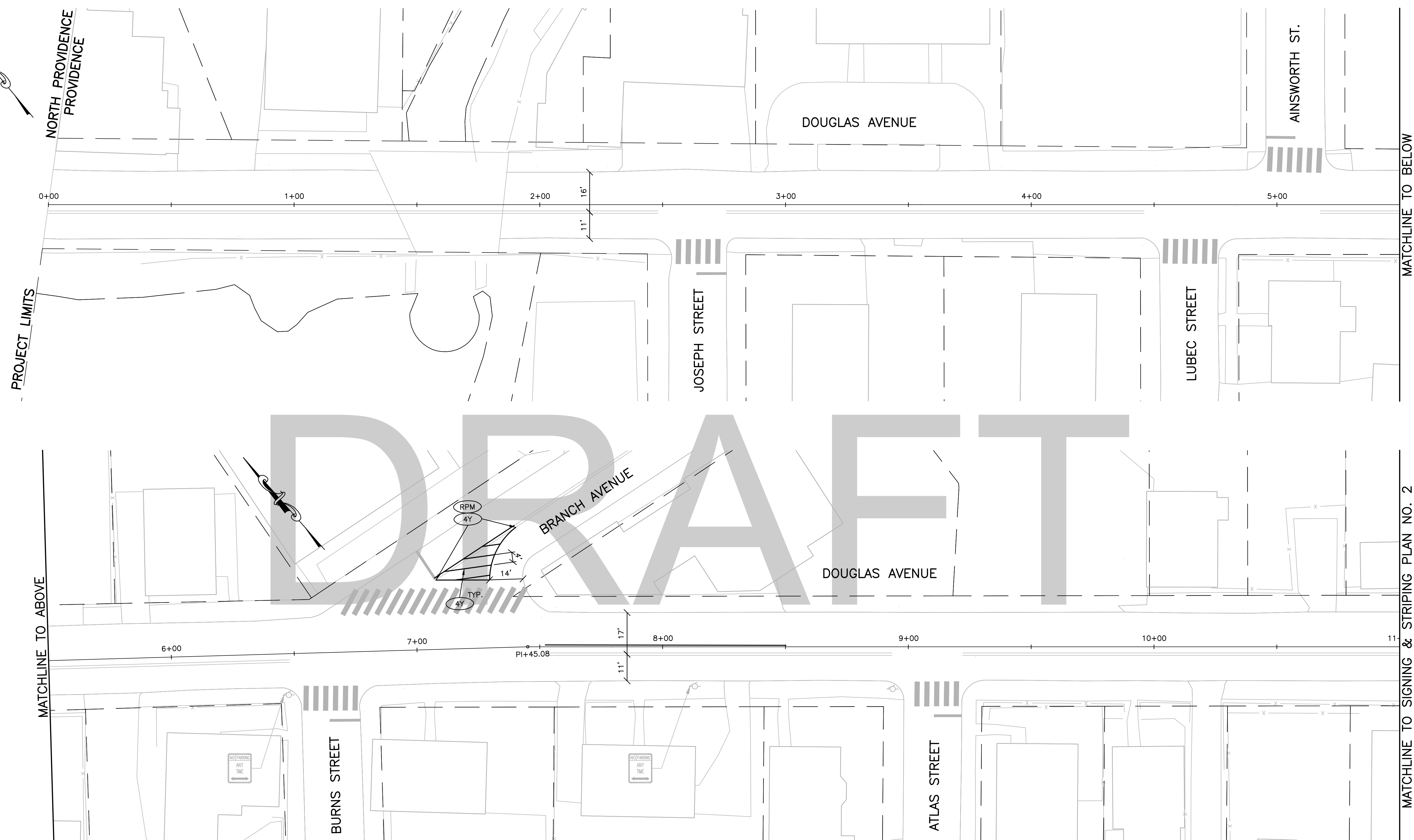
Block-by-block parking counts are included on the following page. The two areas where the extended bike lane alternative requires the removal of more than 50% of on-street parking are between Orms and Wayne streets (19 spaces) and between Vale and Camden streets (25 spaces). Between Vale and Camden streets, 100% (22 of 22) of properties have off-street parking, including a private lot at the corner of Douglas Ave and Chad Brown St that contains approximately 23 parking spaces. Between Orms and Wayne streets, 92% (12 of 13) properties have off-street parking.

Respectfully submitted by Alex Ellis.

From	To	Existing spaces		Proposed spaces		% Removal
		SW side	NE side	SW side	NE side	
Orms	Goddard	0	3	0	0	100% (3 spaces)
Goddard	Lydia	0	5	0	0	100% (5 spaces)
Lydia	Bernon	0	5	0	0	100% (5 spaces)
Bernon	Wayne	0	6	0	0	100% (6 spaces)
Wayne	Chalkstone	0	0	0	0	0% (0 spaces)
Chalkstone	Whipple	12	13	0	13	48% (12 spaces)
Whipple	Crimea	2	0	2	0	0% (0 spaces)
Crimea	Fillmore	3	0	3	0	0% (0 spaces)
Fillmore	Candace	5	6	5	6	0% (0 spaces)
Candace	Mansfield	0	2	0	2	0% (0 spaces)
Mansfield	Vale	20	19	20	19	0% (0 spaces)
Vale	Chad Brown	4	13	0	0	100% (17 spaces)
Chad Brown	Pumgansett	6	5	0	0	100% (11 spaces)
Pumgansett	Suffolk	7	5	0	0	100% (12 spaces)
Suffolk	Camden	2	2	0	0	100% (4 spaces)
Camden	Eaton	0	0	0	0	0% (0 spaces)
Totals:		145		70		

From	To	Block includes	Length (ft)
Orms	Goddard	Bus stop, synagogue	248
Goddard	Lydia		197
Lydia	Bernon		124
Bernon	Wayne	bus stop	268
Wayne	Chalkstone	on ramp turn lane, "The Corner Plaza" exit, autobody	181
Chalkstone	Whipple	Ladder 133, Taco Bell, bus stop	406
Whipple	Crimea	gas station, bus stop	93
Crimea	Fillmore		151
Fillmore	Candace	Brooklyn Coffee & Tea House, Times2 Academy (down Fillmore)	262
Candace	Mansfield	Smith Hill CDC buildings	69
Mansfield	Vale	cemetery	570
Vale	Chad Brown	cemetery	331
Chad Brown	Pumgansett	liquor store, bus stop, convenience store (both businesses own adjacent off-street lots)	278
Pumgansett	Suffolk		229
Suffolk	Camden	Via Via café (adjacent off-street lot)	117
Camden	Eaton	bus stop, police substation	98

SHEET NO.	TOTAL NO.
1	X

[illegible]

City of Providence

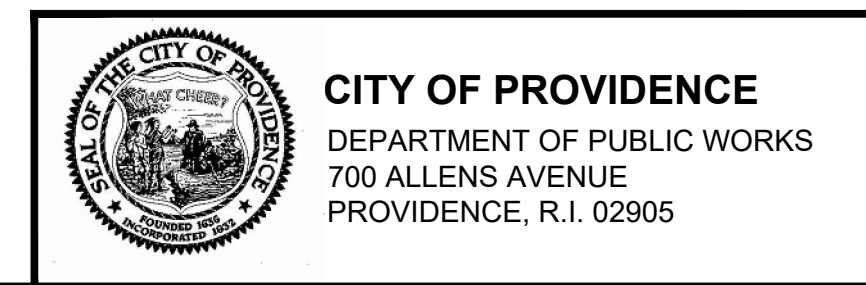
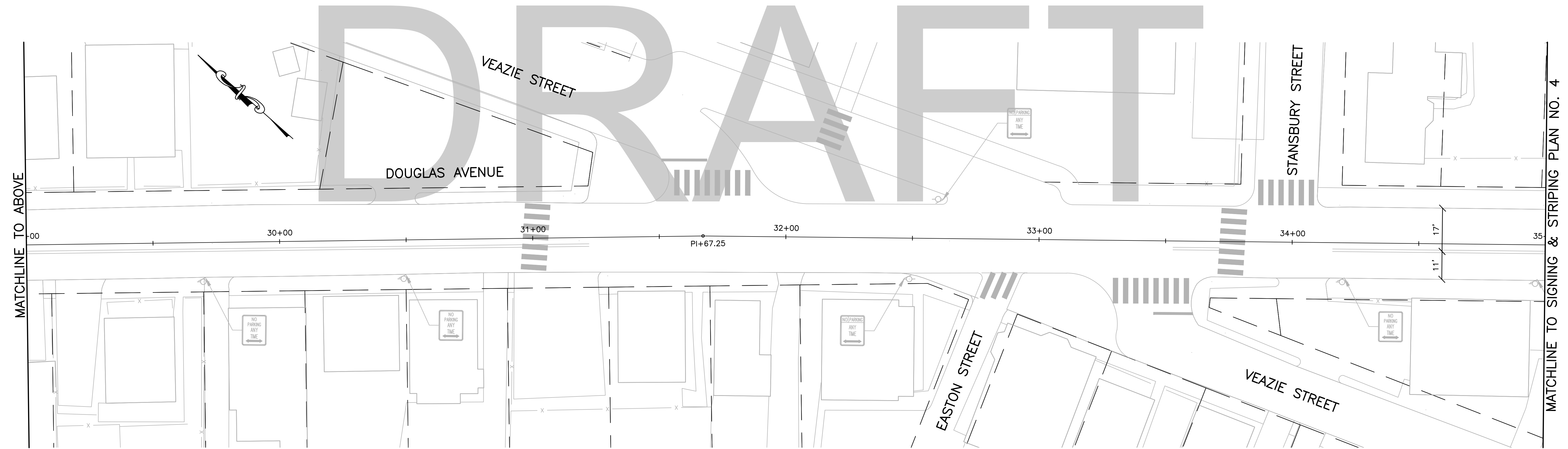
BICYCLE
IMPROVEMENT PROJECT
DOUGLAS AVENUE
PROVIDENCE RHODE ISLAND

SIGNING & STRIPING PLAN NO. 1

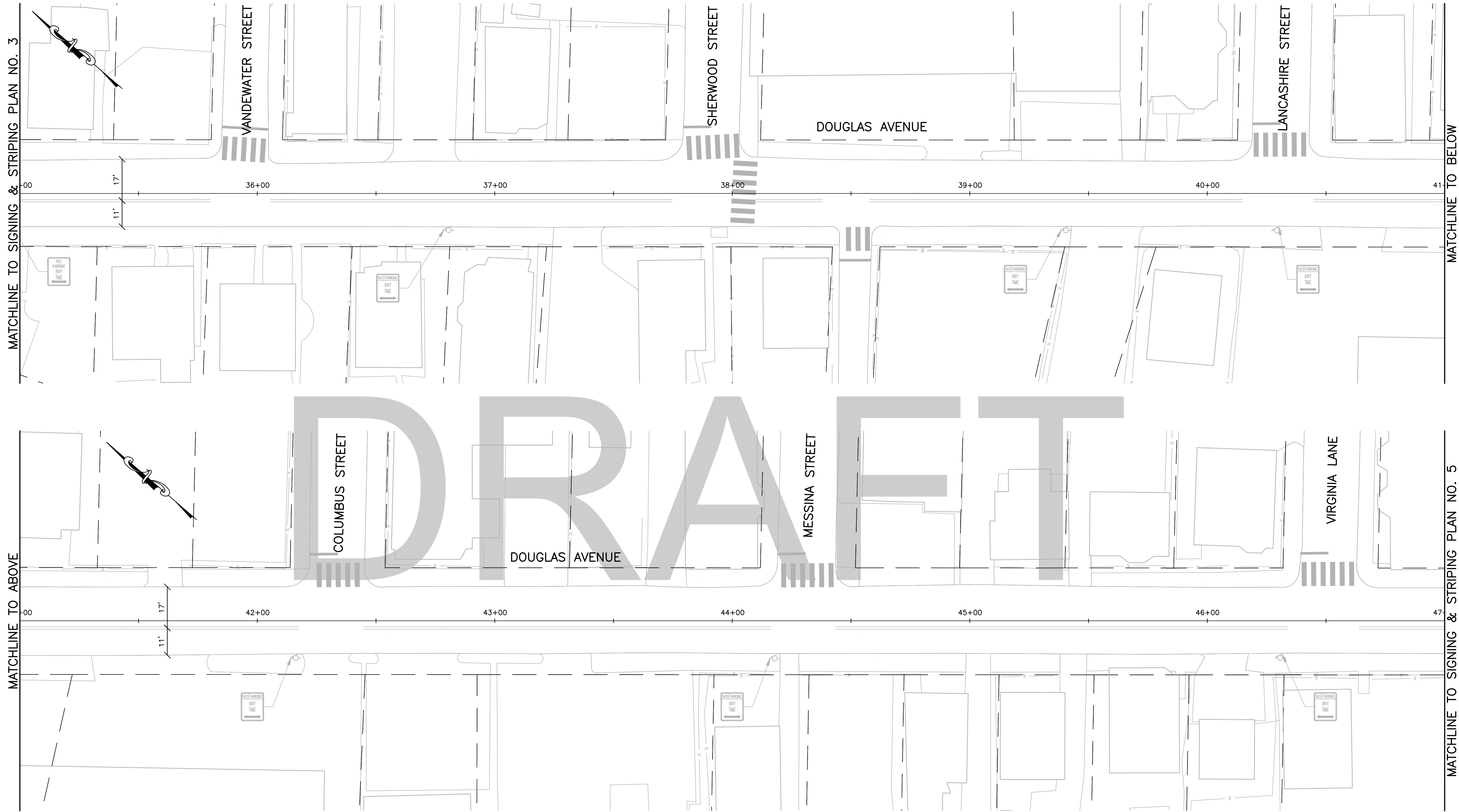
DWN: CHECKED: DATE: 3/14/2018 SCALE: 1"=20'



CITY OF PROVIDENCE
DEPARTMENT OF PUBLIC WORKS
700 ALLENS AVENUE
PROVIDENCE, R.I. 02905



REVISIONS			City of Providence	
NO.	DATE	BY		
			BICYCLE IMPROVEMENT PROJECT	
			DOUGLAS AVENUE	
			PROVIDENCE	RHODE ISLAND
			SIGNING & STRIPING PLAN NO. 3	
			DWN:	CHECKED: DATE: 3/14/2018 SCALE: 1"=20'

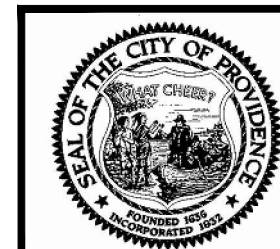


MATCHLINE TO SIGNING & STRIPING PLAN NO. 3

MATCHLINE TO BELOW

MATCHLINE TO ABOVE

MATCHLINE TO SIGNING & STRIPING PLAN NO. 5

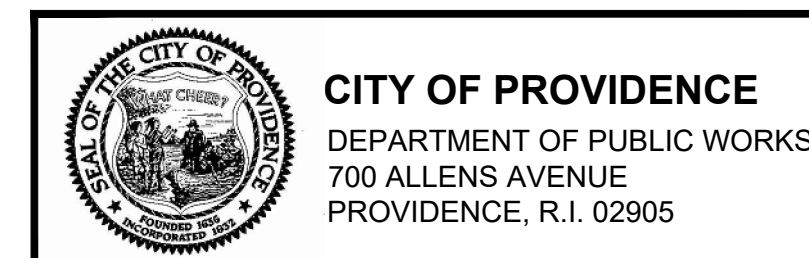


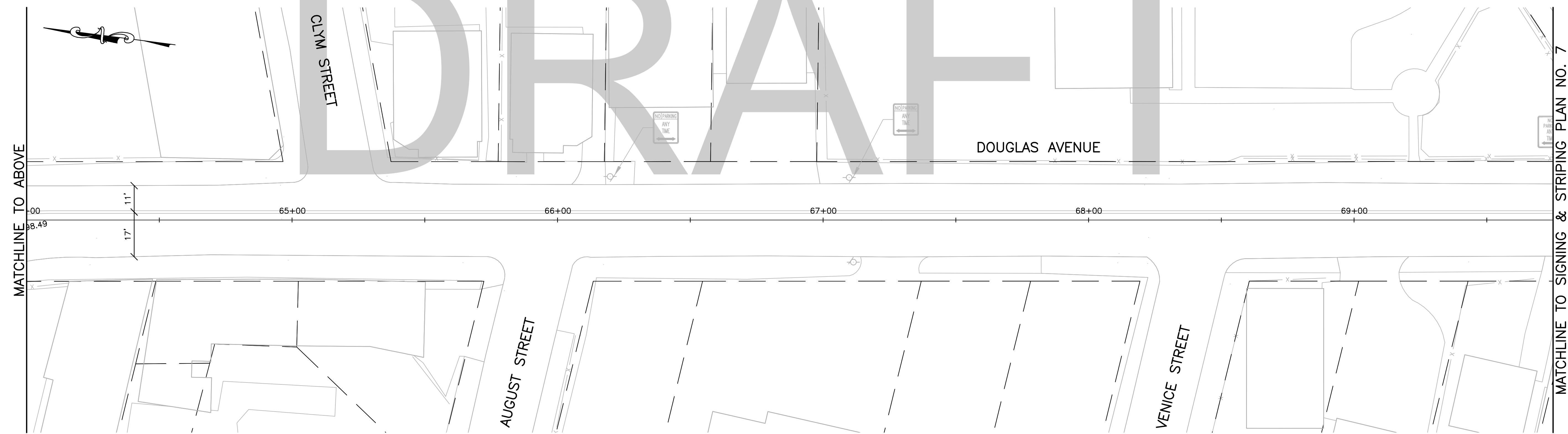
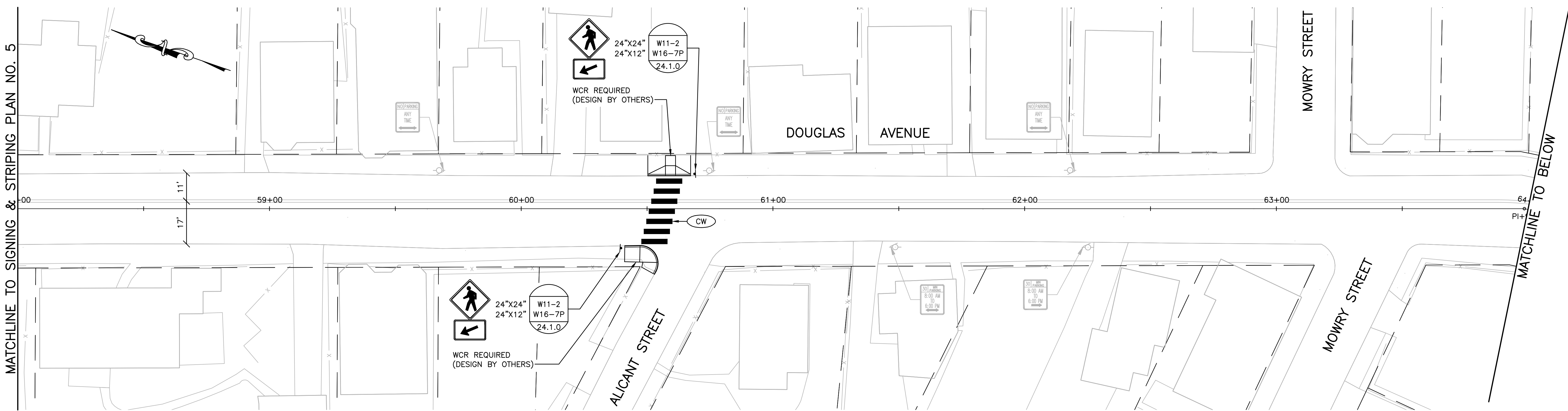
CITY OF PROVIDENCE
DEPARTMENT OF PUBLIC WORKS
700 ALLENS AVENUE
PROVIDENCE, R.I. 02905

REVISIONS			<i>City of Providence</i>	
NO.	DATE	BY		
			BICYCLE IMPROVEMENT PROJECT DOUGLAS AVENUE	
			PROVIDENCE	RHODE ISLAND
			SIGNING & STRIPING PLAN NO. 4	
			DWN: CHECKED: DATE: 3/14/2018 SCALE: 1"=20'	

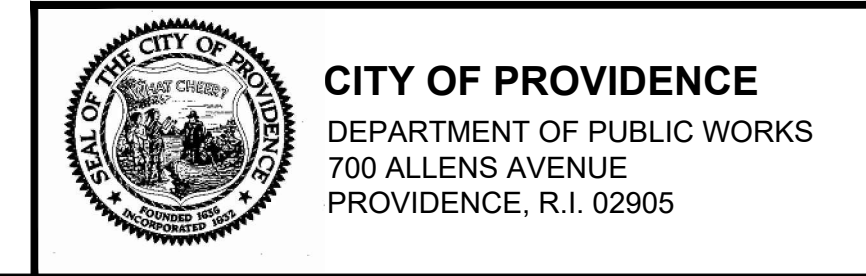


<p><i>City of Providence</i></p>			
<p>BICYCLE IMPROVEMENT PROJECT DOUGLAS AVENUE</p>			
<p>PROVIDENCE</p>		<p>RHODE ISLAND</p>	
<p>SIGNING & STRIPING PLAN NO. 5</p>			
<p>DWN:</p>	<p>CHECKED:</p>	<p>DATE:</p>	<p>3/14/2018</p>
		<p>SCALE:</p>	<p>1"=20'</p>

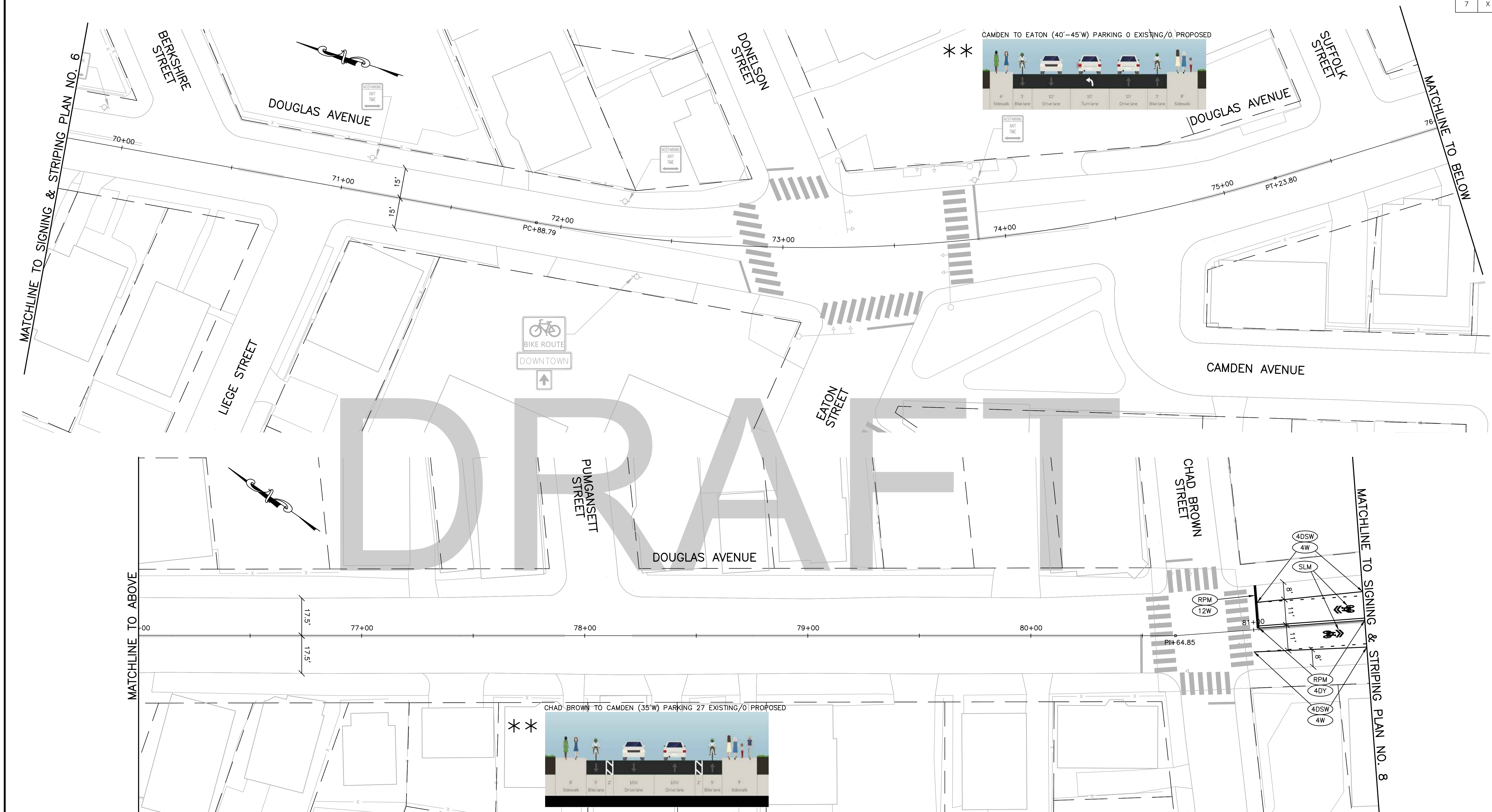




DRAFT



REVISIONS			City of Providence	
NO.	DATE	BY		
			BICYCLE IMPROVEMENT PROJECT DOUGLAS AVENUE	
			PROVIDENCE RHODE ISLAND	
			SIGNING & STRIPING PLAN NO. 6	
			DWN: CHECKED: DATE: 3/14/2018 SCALE: 1"=20'	



* * ALTERNATIVE OPTION WITH PARKING REMOVAL

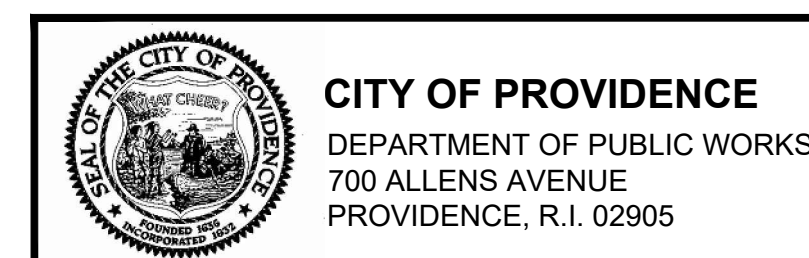
[illegible]

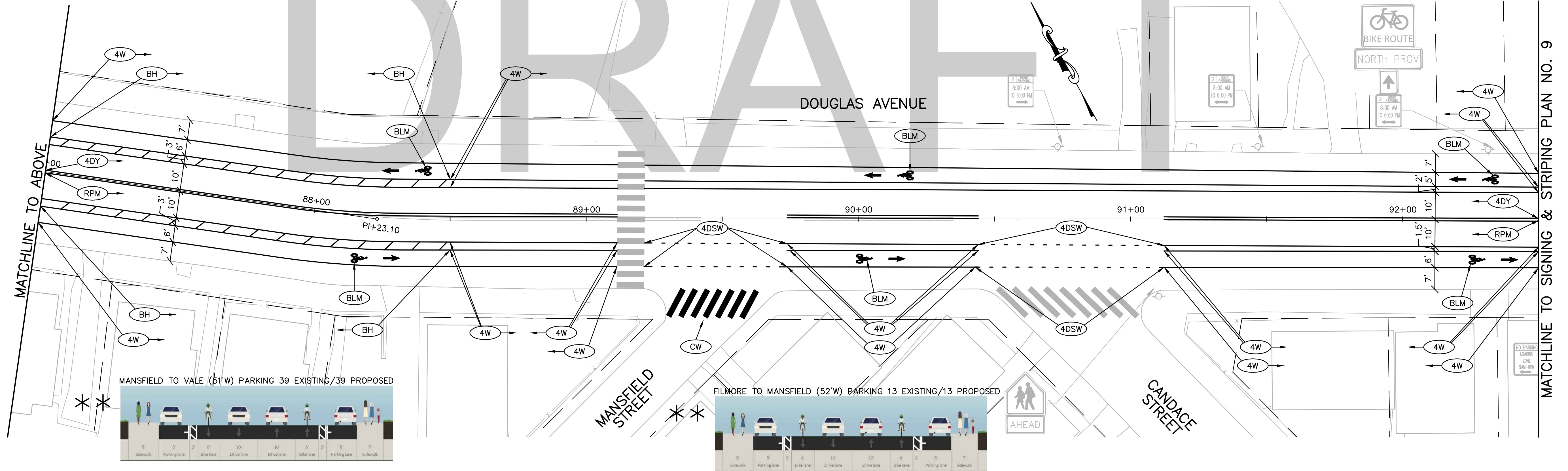
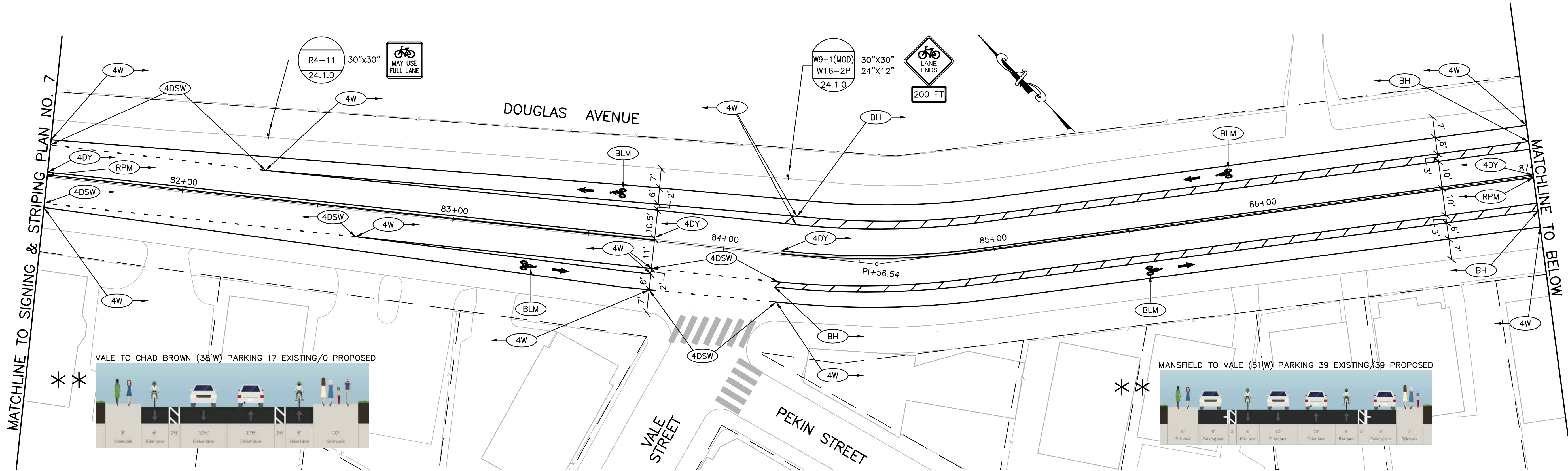
City of Providence

BICYCLE
IMPROVEMENT PROJECT
DOUGLAS AVENUE
PROVIDENCE RHODE ISLAND

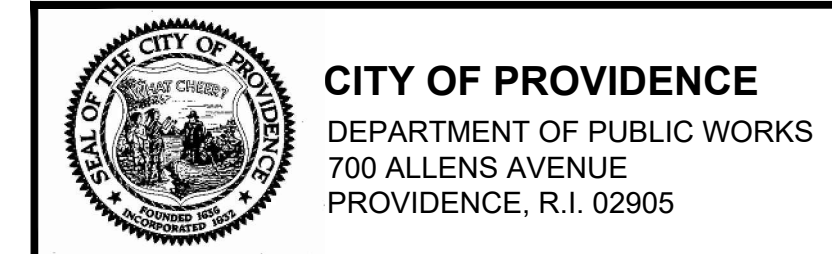
SIGNING & STRIPING PLAN NO. 7

DWN: CHECKED: DATE: 3/14/2018 SCALE: 1"=20'

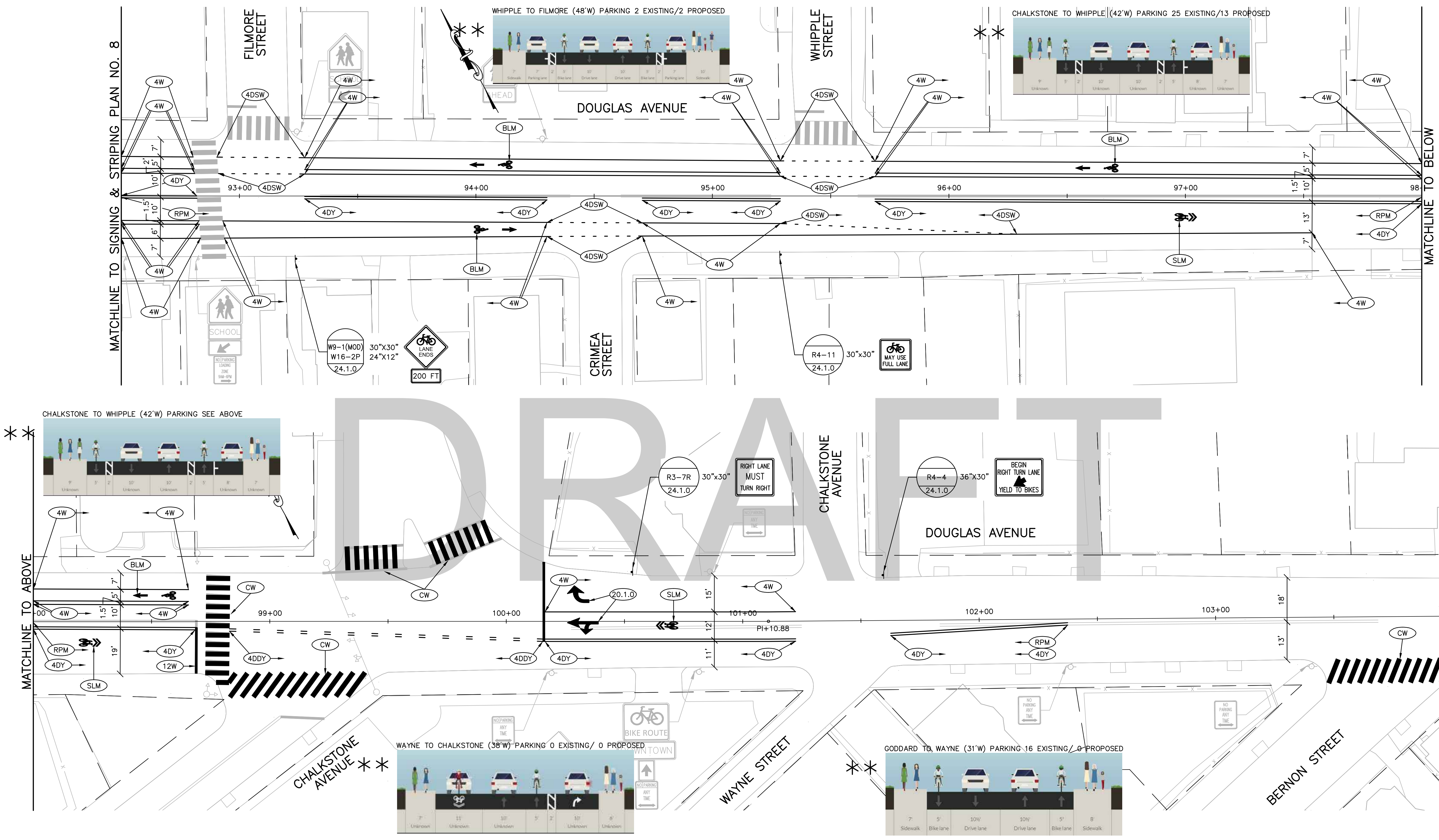




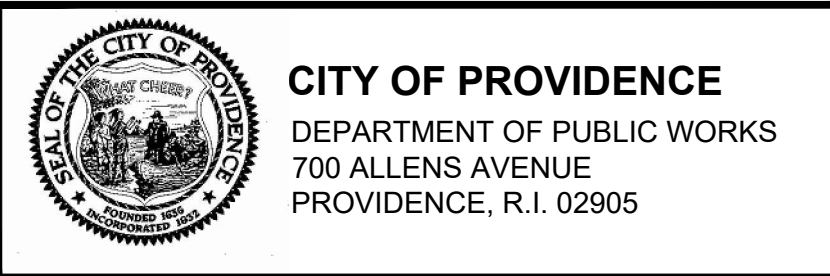
** ALTERNATIVE OPTION WITH PARKING REMOVAL



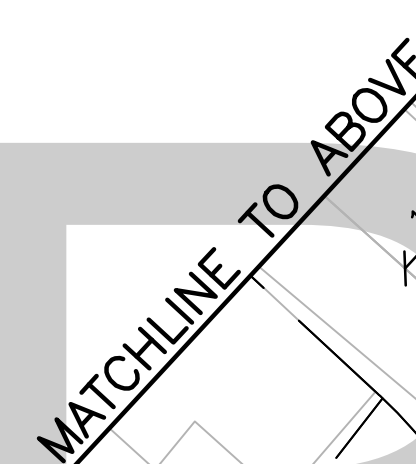
REVISIONS			City of Providence	
NO.	DATE	BY		
			BICYCLE IMPROVEMENT PROJECT DOUGLAS AVENUE	
			PROVIDENCE RHODE ISLAND	
			SIGNING & STRIPING PLAN NO. 8	
			DWN: CHECKED: DATE: 3/14/2018 SCALE: 1"=20'	



** ALTERNATIVE OPTION WITH PARKING REMOVAL



REVISIONS			City of Providence	
NO.	DATE	BY		
			BICYCLE IMPROVEMENT PROJECT DOUGLAS AVENUE	
			PROVIDENCE RHODE ISLAND	
			SIGNING & STRIPING PLAN NO. 9	
			DWN: CHECKED: DATE: 3/14/2018 SCALE: 1"=20'	

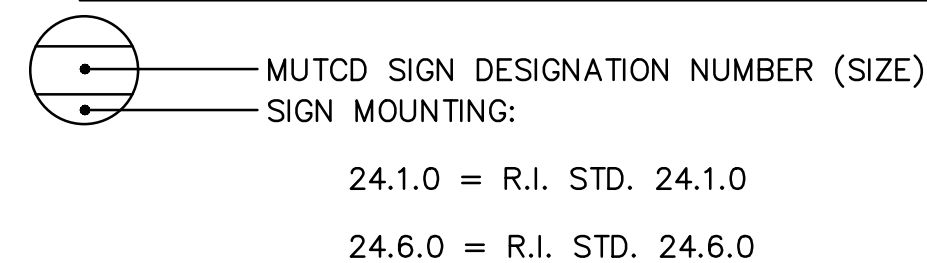


72929_V1_010_SIGNSTPE010

JOB SPECIFIC LEGEND:

- | | |
|--------|---|
| 7.3.2M | 6'-0" GRANITE TRANSITION CURB MODIFIED 7" WIDTH |
| 7.3.3M | GRANITE WHEELCHAIR RAMP TRANSITION CURB MODIFIED 7" WIDTH |
| 7.3.9M | GRANITE RAMP STONE MODIFIED 7" WIDTH |
| 43.3.0 | WHEELCHAIR RAMP |
| 43.3.1 | CEMENT CONCRETE SIDEWALK |
| 48.1.0 | DETECTABLE WARNING SYSTEM |
| 20.1.0 | PAVEMENT MARKINGS ARROWS AND ONLY |
| BH | BICYCLE LANE BUFFER WITH HATCH (SEE DETAIL) |
| BLA | BICYCLE LANE EXTENSION ARROW (SEE DETAIL) |
| BLEM | BICYCLE LANE EXTENSION MARKINGS (SEE DETAIL) |
| BLM | BICYCLE LANE MARKING (SEE DETAIL) |
| BLML | BICYCLE LANE MARKING – LEFT TURN (SEE DETAIL) |
| BLMR | BICYCLE LANE MARKING – RIGHT TURN (SEE DETAIL) |
| DS | REMOVE AND DISPOSE SIGN |
| SGC | STOCKPILE GRANITE CURB |
| SLM | SHARED LANE PAVEMENT MARKING (SEE DETAIL) |
| 4BW | 4" BROKEN WHITE BIKE LANE LINE (SEE DETAIL) |
| 4DY | 4" EPOXY RESIN PAVEMENT MARKINGS – DOUBLE YELLOW |
| 4DDY | 4" DASHED DOUBLE YELLOW GUIDE LINE MARKING (SEE DETAIL) |
| 4DSW | 4" INTERSECTION WHITE GUIDE LINE MARKING (SEE DETAIL) |
| 4DW | 4" EPOXY RESIN PAVEMENT MARKINGS – DOUBLE WHITE |
| 4W | 4" EPOXY RESIN PAVEMENT MARKINGS – WHITE |
| 4Y | 4" EPOXY RESIN PAVEMENT MARKINGS – YELLOW |
| 12Y | 12" EPOXY RESIN PAVEMENT MARKINGS – YELLOW |

TYPICAL SIGN DESIGNATION SYMBOL

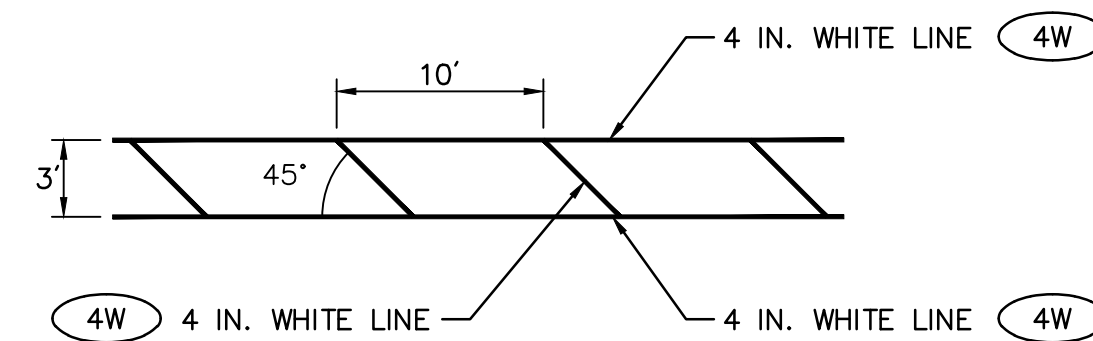


GENERAL NOTES - PAVEMENT MARKINGS:

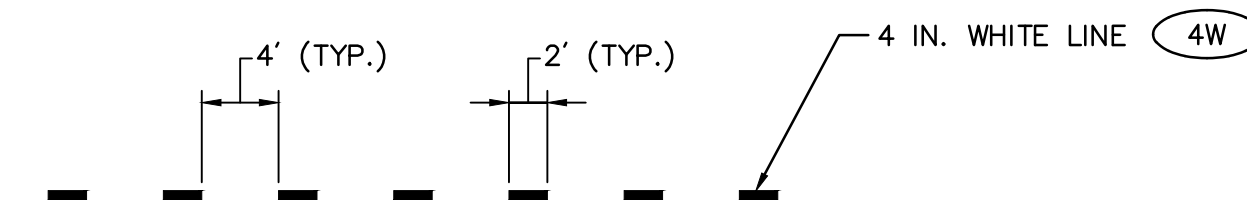
1. ALL PERMANENT PAVEMENT MARKINGS FOR THIS PROJECT SHALL BE EPOXY RESIN.
2. THE LOCATION OF PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2009 EDITION, AS AMENDED.
3. WHERE EXISTING PAVEMENT MARKINGS CONFLICT WITH PROPOSED PAVEMENT MARKINGS, EXISTING MARKINGS SHALL BE REMOVED BY METHOD APPROVED BY THE RIDOT.
4. LIMITS OF PROPOSED PAVEMENT MARKINGS SHALL MEET EXISTING STRIPING, UNLESS OTHERWISE NOTED.

GENERAL NOTES - SIGNS:

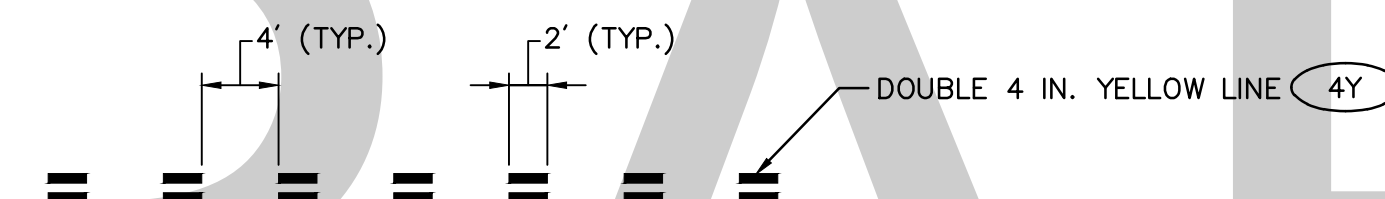
1. ALL NEW DIRECTIONAL, REGULATORY, WARNING, GUIDE SIGNS AND PARKING SIGNS SHALL HAVE SIGN SUPPORTS. SIGN MOUNTINGS SHALL BE R.I. STD. 24.1.0 UNLESS OTHERWISE NOTED.
2. PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY THE CITY OF PROVIDENCE.
3. ALL SIGNS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 7' OVER THE SIDEWALK.
4. ALL SIGN RADII AND BORDERS SHALL BE AS SPECIFIED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED.



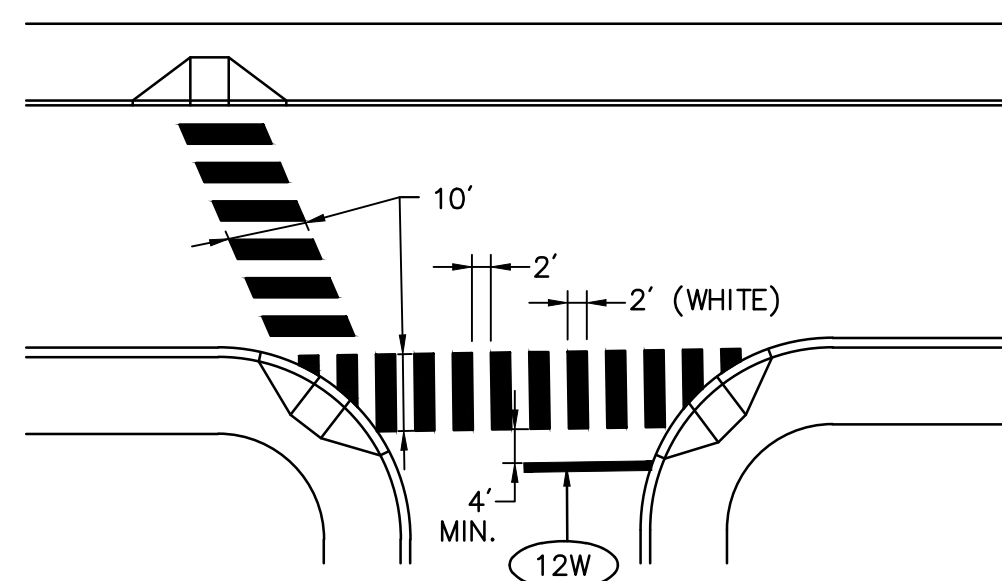
BICYCLE LANE BUFFER WITH HATCH (BH)
NOT TO SCALE



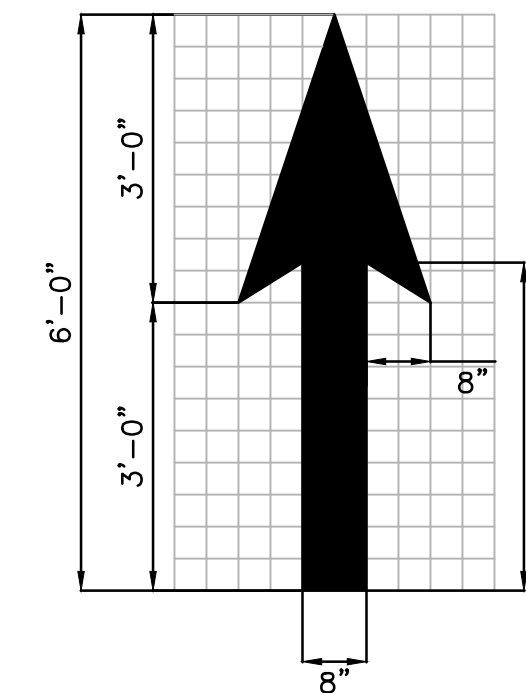
INTERSECTION WHITE GUIDE LINE MARKING DETAIL (4DSW)
NOT TO SCALE



DASHED DOUBLE YELLOW GUIDE LINE MARKING DETAIL (4DDY)
NOT TO SCALE

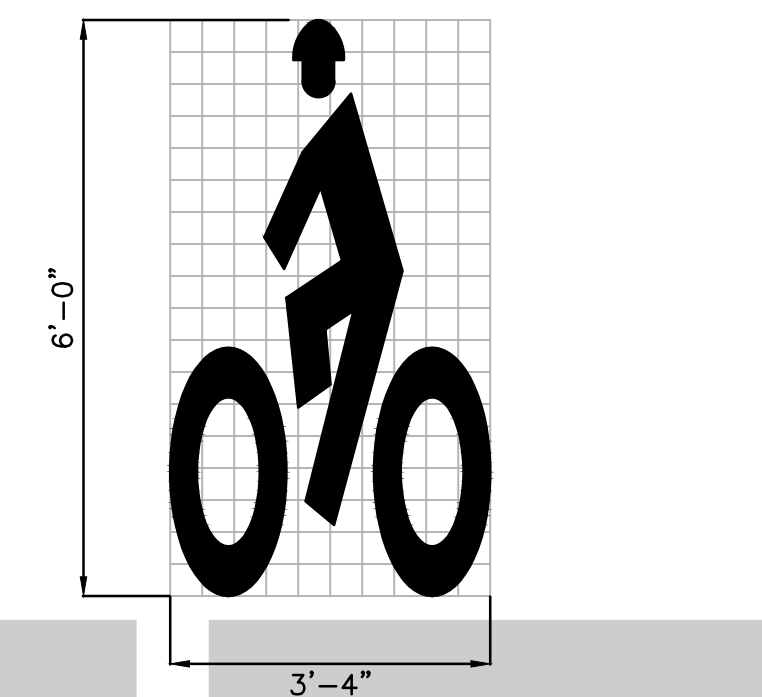


TYPICAL CROSSWALK STRIPING (CW)
NOT TO SCALE

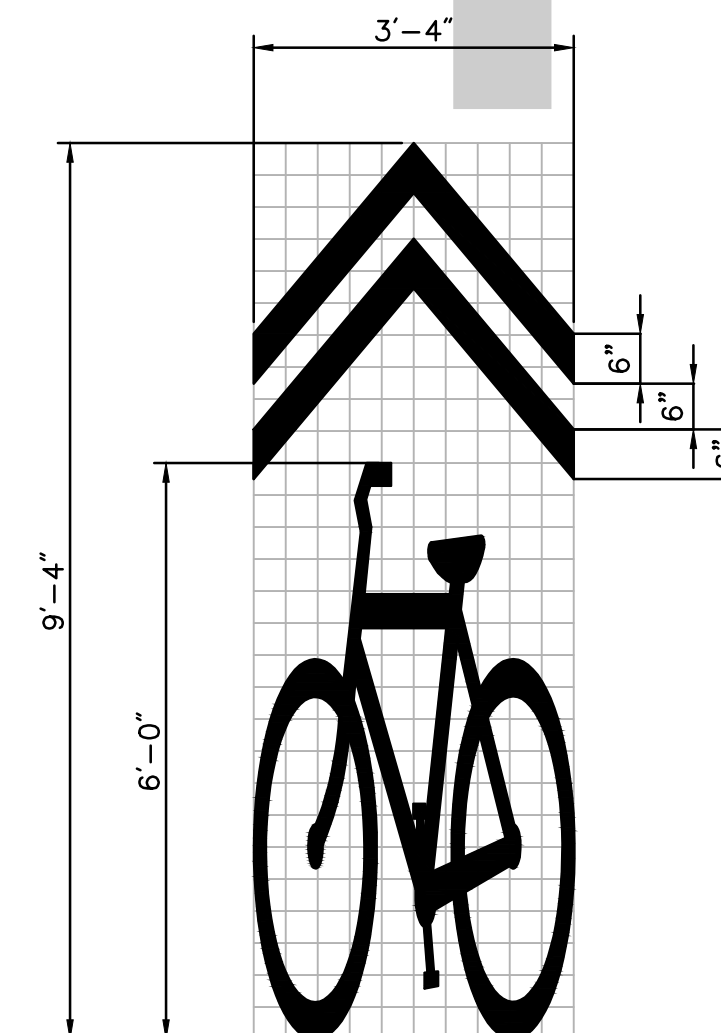


STRAIGHT ARROW – BICYCLE
PAVEMENT MARKING DETAIL (BLM)

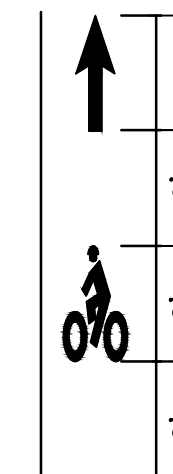
NOT TO SCALE



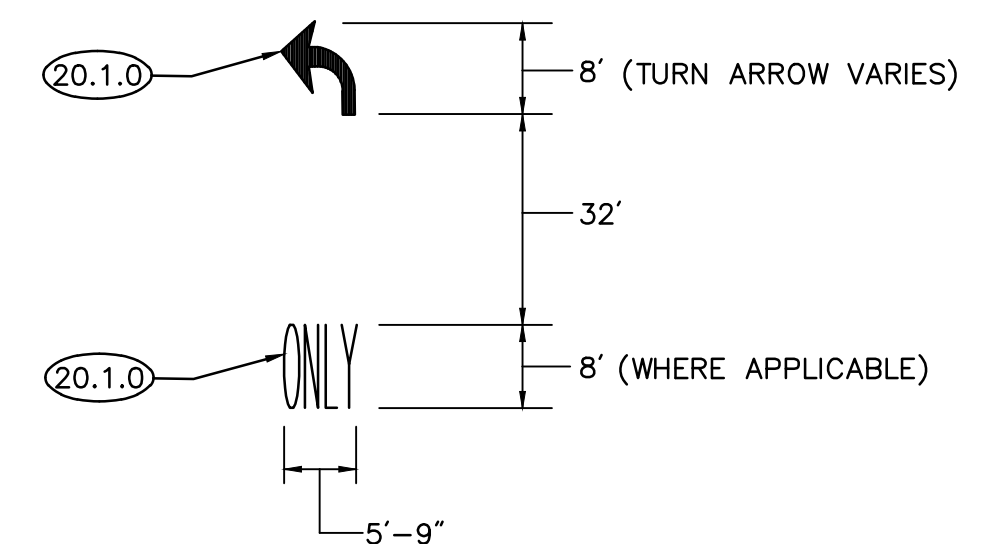
BICYCLE RIDER
PAVEMENT MARKING DETAIL
NOT TO SCALE



EPOXY RESIN SHARED LANE PAVEMENT
MARKING – WHITE DETAIL (SLM)
NOT TO SCALE



BICYCLE LANE MARKING DETAIL (BLM) (BLML) (BLMR)
NOT TO SCALE



TURNING LANE MARKINGS
NOT TO SCALE

REVISIONS			<i>City of Providence</i>	
NO.	DATE	BY		
			BICYCLE IMPROVEMENT PROJECT DOUGLAS AVENUE	
			PROVIDENCE	RHODE ISLAND
			DETAILS	
DWN:	CHECKED:	DATE:	3/14/2018	SCALE: 1"=20'

