



## Providence Bicycle and Pedestrian Advisory Commission

Jorge O. Elorza, Mayor

**Staff Report: Capital Improvement Program Contract 1 30% Review – Mount Pleasant, Elmhurst, Wanskuck, Charles – Wards 4, 5, 12, 14 (For Action)**

*Presented at May 16, 2018 BPAC meeting*

### **Project Background**

The City of Providence Department of Planning and Development seeks comments from the BPAC regarding the conceptual plans for Contract 1 of the City's Capital Improvement Program. These 17 repaving projects were selected based on pavement condition and geographic diversity. This will be a design level review of the project and will be the second of two reviews before the Commission.

### **Recommendations from Conceptual Review**

- For all projects that contain or abut arterials or collectors, restriping should incorporate crosswalks painted in the continental style, with 2 ft wide stripes and 2 ft wide gaps. This style of crosswalk should be adopted as the citywide standard.
  - **The Traffic Engineering Division adopted the new crosswalk standard of 1 foot wide stripes with 2 ft spacing because it is less expensive. This standard will be applied to new crosswalks, but when an existing crosswalk that is 2 ft x 2 ft is restriped it will kept as is.**
- Where appropriate and within project boundaries at crosswalk locations, lanes of arterials and collectors should be narrowed to 1 ft narrower than their regular width, with extra space being devoted to bulb-outs of striped side-lines. While granite curb extensions are outside the budget of this project, this measure will decrease vehicular speeds, reduce pedestrian crossing distances, and make crosswalks more visible.
  - **Where appropriate and feasible, lane width reductions of various dimensions will be considered. Bulbouts are generally cost prohibitive and not budgeted for recurring maintenance.**
- Eaton Street
  - Eaton St between Douglas Ave and Wyndham St should be restriped to fit two 10 ft travel lanes and two 5 ft bike lanes against the curb, each separated by a 2 ft buffer.
  - Between Wyndham St and River Ave, a similar configuration should be restriped, but due to the narrower width, the buffers should be omitted (5 ft bike lane, 10 ft travel lane, 10 ft travel lane, 5 ft bike lane).
    - **Eaton Street is striped in the attached plans in accordance with these recommendations, but only east to the edge of the Capital Improvement Program scope at Tyndall Ave.**



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- The City should ask RIDOT to undertake a road safety assessment on Charles St between Smith St and the RI-146 on-ramp, and Orms St from Charles St to Douglas Ave.
  - **The Department of Planning and Development has reached out to RIDOT to request a road safety assessment in this location.**
- Whitford Ave between Mt Pleasant Ave and Home St should be designated a neighborhood bikeway by means of signage, pavement markings, and other traffic calming measures. On neighborhood bikeways, bicycle traffic has priority while sharing the street with low-speed and low-volume vehicular traffic. Shared-lane markings should be added to the street as part of the Capital Improvement Program work, preferably with a square of green paint behind.
  - **Green-backed sharrows are included in the attached plans for Whitford Ave, and will be installed contingent on approval for experimentation by Federal Highway. Additional traffic calming necessary to complete the designation of the street as a neighborhood greenway will not be installed as part of the Capital Improvement Program, but may be installed through the Traffic Calming Advisory Group.**



**Providence Bicycle and Pedestrian Advisory Commission**  
Jorge O. Elorza, Mayor

**Project Map**



Respectfully submitted by Alex Ellis.



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55 & 56	MAINTENANCE & PROTECTION OF TRAFFIC DETAILS 1 & 2

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

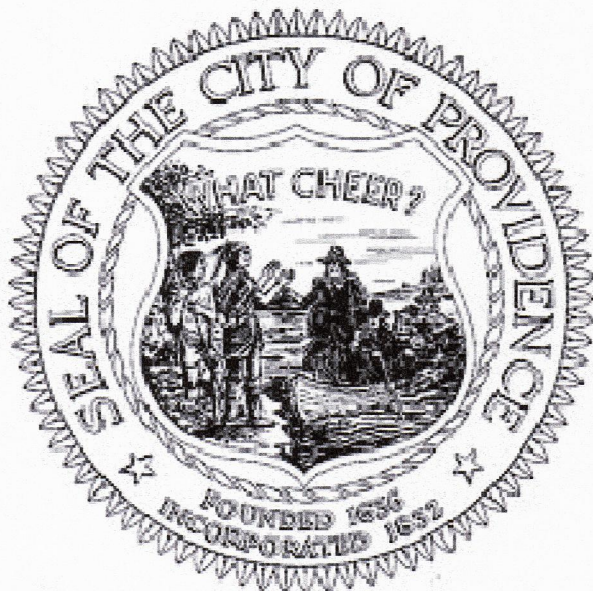
SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED 2010, WITH ALL REVISIONS, AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.

CITY OF PROVIDENCE

DEPARTMENT OF PUBLIC WORKS

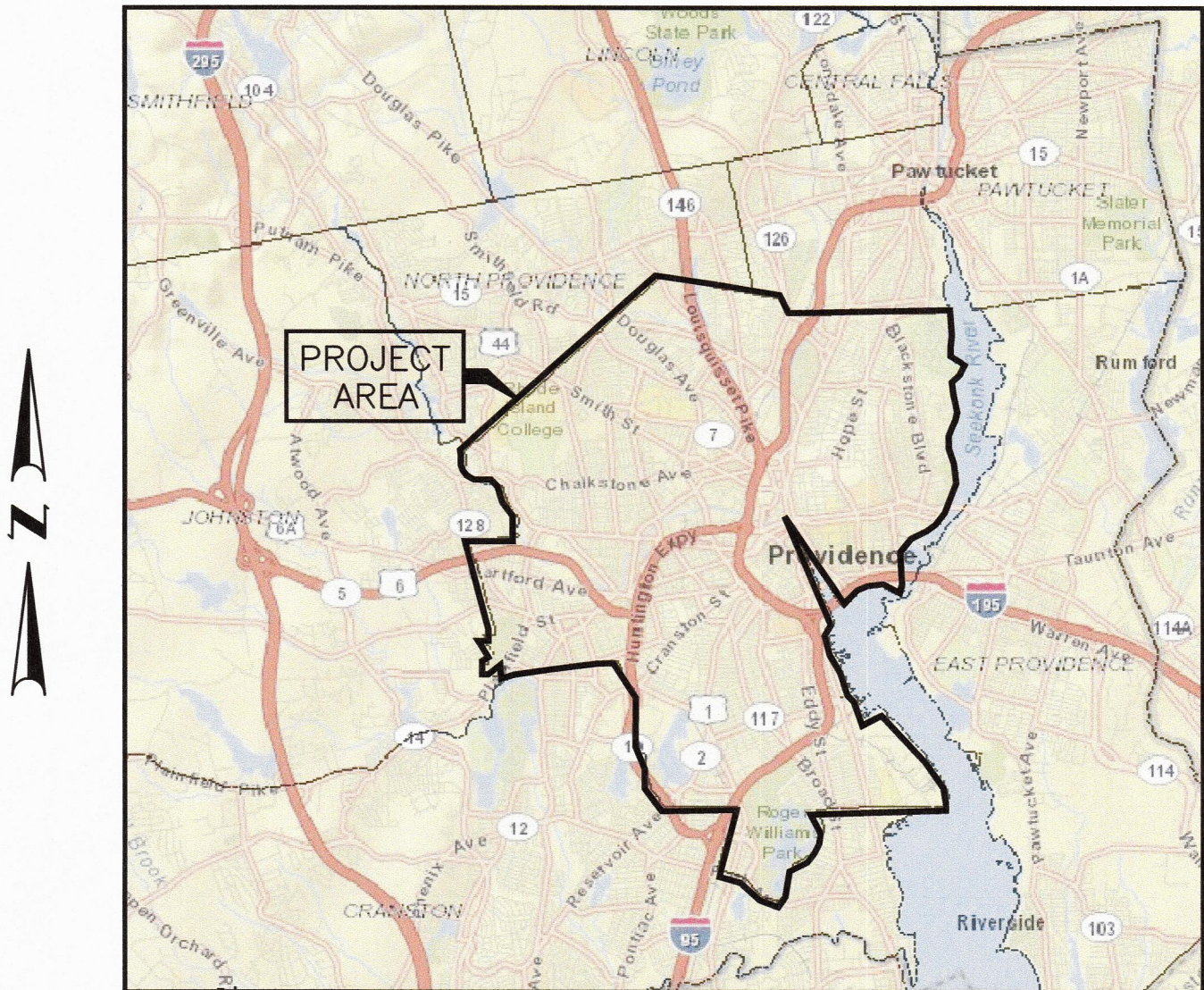
PROVIDENCE 2018  
CAPITAL IMPROVEMENT PLAN  
ROAD PAVING CONTRACT 1

HONORABLE JORGE O. ELORZA,  
MAYOR, CITY OF PROVIDENCE

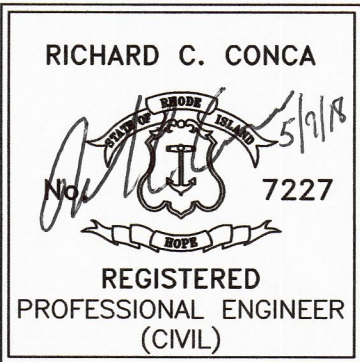


CHAD BROWN STREET  
CHARLES STREET  
CHATHAM STREET  
DANFORTH STREET  
DE PINEDO STREET  
DOUGLAS AVENUE  
EATON STREET  
GENTIAN AVENUE  
GILLEN STREET

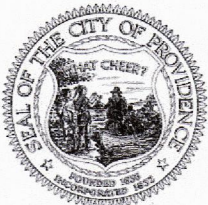
HOME AVENUE  
OAKLAND AVENUE  
OREGON STREET  
ORMS STREET  
RIALTO STREET  
SALTER STREET  
SANTOMARCO DRIVE  
VEAZIE STREET  
WHITFORD AVENUE



LOCATION MAP  
NOT TO SCALE



Gordon R. Archibald, Inc.  
Civil and Environmental Engineers  
Pawtucket, Rhode Island

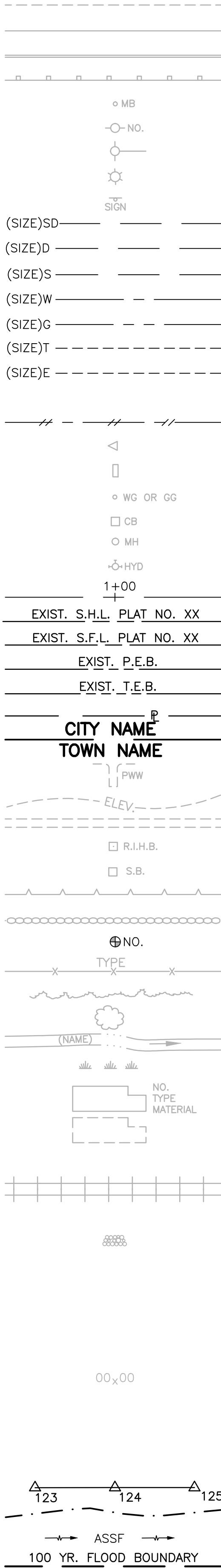


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700 ALLENS AVENUE  
PROVIDENCE, R.I. 02905

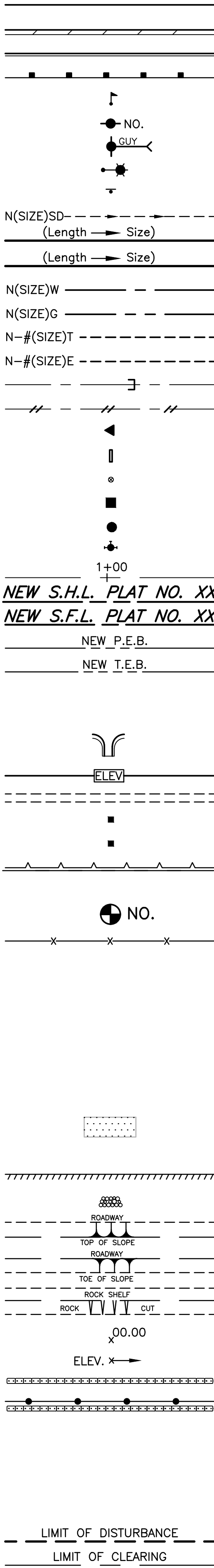


LEGEND

EXISTING



NEW



1.1.0	UNDERDRAIN
1.3.0	CONCRETE CONNECTING COLLAR
2.1.0	CONCRETE HEADWALLS FOR PIPE CULVERTS
2.2.0	STANDARD HEADWALLS FOR MULTIPLE 3'-6" TO 7'-0" PIPE CULVERTS
2.3.0 (DIA.)	PRECAST CONCRETE FLARED END SECTION
3.2.0	BRICK/SOLID BLOCK 4'-0" ROUND MANHOLE
3.2.1 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND MANHOLE
3.3.0	BRICK/SOLID BLOCK TYPE "D" SQUARE CATCH BASIN
3.3.2	BRICK/SOLID BLOCK TYPE "F" SQUARE CATCH BASIN
3.3.3	SOLID BLOCK FLUSH SQUARE CATCH BASIN
3.4.0	BRICK/SOLID BLOCK TYPE "D" ROUND CATCH BASIN
3.4.1	BRICK/SOLID BLOCK ROUND CATCH BASIN WITH GUTTER INLET
3.4.2	BRICK/SOLID BLOCK TYPE "F" ROUND CATCH BASIN
3.4.3	BRICK/SOLID BLOCK TYPE "R" CATCH BASIN
3.4.4	SOLID BLOCK FLUSH ROUND CATCH BASIN
3.4.5 (DIA.)	SOLID BLOCK FLUSH SQUARE 5'-0" OR 6'-0" ROUND CATCH BASIN
3.5.0	SOLID BLOCK SHALLOW TYPE "F" SQUARE CATCH BASIN
3.5.1 (SIZE)	SOLID BLOCK SHALLOW 5'-0" OR 6'-0" SQUARE CATCH BASIN
3.6.0	BRICK/SOLID BLOCK DROP INLET
3.7.0 (DIA.)	BRICK/SOLID BLOCK ROUND MANHOLE OR CATCH BASIN GREATER THAN 12'-0"
4.2.0	PRECAST 4'-0" ROUND MANHOLE
4.2.1	PRECAST 5'-0" ROUND MANHOLE
4.2.2	PRECAST 6'-0" ROUND MANHOLE
4.3.0 (SIZE)	PRECAST 4'-0" OR 6'-0" SQUARE MANHOLE OR CATCH BASIN
4.4.0 (DIA.)	PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN
4.5.0	PRECAST CONCRETE DROP INLET
4.5.1	PRECAST CONCRETE DROP INLET LATERAL OUTLET
4.5.2	PRECAST CONCRETE DROP INLET LONGITUDINAL OUTLET
5.3.0	CATCH BASIN AND MANHOLE STEP
5.4.0	CONCRETE COLLARS
6.1.0	LIGHT-DUTY SQUARE FRAME AND ROUND COVER
6.1.1	HEAVY DUTY SQUARE FRAME AND ROUND COVER
6.2.0	LIGHT-DUTY ROUND FRAME AND COVER
6.2.1	HEAVY-DUTY ROUND FRAME AND COVER
6.3.0	SQUARE FRAME AND GRATE
6.3.1	SQUARE FRAME AND GRATE
6.3.2	SQUARE FRAME AND GRATE (BICYCLE SAFE)
6.3.3	HIGH CAPACITY FRAME AND GRATE
6.3.4	HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
6.4.0	ROUND FRAME AND GRATE
7.1.0S	PRECAST CONCRETE CURB (STRAIGHT)
7.1.0C	PRECAST CONCRETE CURB (CIRCULAR)
7.1.1	3'-0' PRECAST CONCRETE TRANSITION CURB
7.1.2	6'-0" PRECAST CONCRETE TRANSITION CURB
7.1.4	PRECAST 2'-0" RADIUS CORNER
7.1.5	PRECAST CONCRETE INLET STONE (FOR SQUARE CATCH BASIN)
7.1.6	PRECAST CONCRETE INLET STONE (FOR ROUND CATCH BASIN)
7.1.7	PRECAST CONCRETE APRON STONE (FOR SQUARE CATCH BASIN)
7.1.8	PRECAST CONCRETE APRON STONE (FOR ROUND CATCH BASIN)
7.2.0S	PRECAST CONCRETE SLOPED FACE CURB (STRAIGHT)
7.2.0C	PRECAST CONCRETE SLOPED FACE CURB (CIRCULAR)
7.2.1	PRECAST CONCRETE SLOPED FACE TRANSITION CURB
7.2.2	PRECAST CONCRETE TRANSITION CURB (VERTICAL FACE TO SLOPED FACE)
7.3.0S	GRANITE CURB (STRAIGHT)
7.3.0C	GRANITE CURB (CIRCULAR)
7.3.1	3'-0" GRANITE TRANSITION CURB
7.3.2	6'-0" GRANITE TRANSITION CURB
7.3.3	GRANITE WHEELCHAIR RAMP TRANSITION CURB
7.3.4	GRANITE 2'-0" RADIUS CORNER
7.3.5	GRANITE INLET STONE (FOR SQUARE CATCH BASIN)
7.3.6	GRANITE INLET STONE (FOR ROUND CATCH BASIN)
7.3.7	GRANITE APRON STONE (FOR SQUARE CATCH BASIN)
7.3.8	GRANITE APRON STONE (FOR ROUND CATCH BASIN)
7.4.0	GRANITE SLOPED FACE CURB
7.4.1	GRANITE SLOPED FACE TRANSITION CURB

7.4.2	GRANITE TRANSITION CURB (VERTICAL FACE TO SLOPE FACE)
7.5.0	BITUMINOUS CONCRETE LIP CURB
7.5.1A	BITUMINOUS BERM (CONSTRUCTION METHOD A)
7.5.1B	BITUMINOUS BERM (CONSTRUCTION METHOD B)
7.6.0	CURB SETTING DETAIL
8.2.0	BITUMINOUS CONCRETE DITCH
8.3.0	RIP-RAP DITCH
8.4.0	PAVED WATERWAY
9.1.0	BALED HAY EROSION CHECK
9.2.0	SILT FENCE DETAIL
9.3.0	BALED HAY DITCH EROSION CHECK AND SILT FENCE COMBINED
9.4.0	BALED HAY DITCH AND SWALE EROSION CHECK
9.5.0	LOG AND HAY CHECK DAM
9.7.0	DEWATERING BASIN
9.8.0	BALED HAY CATCH BASIN INLET PROTECTION
9.9.0	CONSTRUCTION ACCESS
10.1.0	WET STONE MASONRY RETAINING WALL
10.2.0	RUBBLE MASONRY WALL
10.3.0	CONCRETE RETAINING WALL
10.4.0	STONE MASONRY STEPS
14.1.0	CONCRETE HIGHWAY BOUND
15.1.0	POST AND MOUNTINGS FOR RURAL MAILBOX
15.2.0 (NO.)	POST AND MULTIPLE MOUNTINGS FOR RURAL MAILBOXES
18.2.0	PRECAST TYPE "A" HANDHOLE
18.2.2	HEAVY DUTY TYPE "H" HANDHOLE
18.3.0	ALUMINUM LIGHTING STANDARDS
20.2.0	BI-DIRECTIONAL CONTROL DEVICE
24.6.1	STREET SIGN MOUNTING DETAIL
26.2.0	POLYETHYLENE DRUM WITH MARKINGS
26.3.0	PVC PLASTIC PIPE TYPE III BARRICADE
31.1.0	CHAIN LINK FENCE 3'-0" TO 4'-0"
31.2.0	CHAIN LINK FENCE 5'-0" TO 6'-0"
31.2.1	CHAIN LINK FENCE 5'-0" TO 6'-0" INTERMEDIATE POST
31.3.0	WOVEN WIRE RIGHT-OF-WAY FENCE (STEEL POST)
34.1.0	TYPICAL GUARDRAIL INSTALLATION
34.2.0	STEEL BEAM GUARDRAIL
34.2.1	STEEL BEAM GUARDRAIL DETAILS
34.2.2	STEEL BEAM GUARDRAIL DOUBLE FACED ASSEMBLY
34.2.3	STEEL BEAM GUARDRAIL FIXTURES
34.2.5	STEEL BEAM GUARDRAIL REFLECTORIZED TRIANGULAR DELINEATOR
34.3.1	GUARDRAIL END SECTION
34.3.2	TERMINAL END SECTION (SINGLE FACE)
34.3.3	ANCHORAGE DETAILS APPROACH END SECTION
34.3.4	ANCHORAGE DETAILS TRAILING END SECTION
34.4.0	STEEL BACKED TIMBER GUARDRAIL
34.4.1	STEEL BACKED TIMBER GUARDRAIL TERMINAL SECTION-TYPE 1
40.1.0	DOUBLE-FACED PRECAST MEDIAN BARRIER
40.2.0	SINGLE-FACED PRECAST MEDIAN BARRIER
40.2.1	SINGLE-FACED PRECAST MEDIAN BARRIER
40.3.0	PRECAST MEDIAN BARRIER TRANSITION UNIT
40.5.0	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL
43.1.0	CEMENT CONCRETE SIDEWALK
43.2.0	BITUMINOUS CONCRETE SIDEWALK
43.3.0	WHEELCHAIR RAMP
43.3.1	WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS
43.4.0	DRIVEWAY DEVELOPMENT FOR 3'-0" TRANSITION CURB
43.4.1	DRIVEWAY DEVELOPMENT FOR 6'-0" TRANSITION CURB
43.5.0	CEMENT CONCRETE DRIVEWAYS
48.1.0	DETECTABLE WARNING SYSTEM
51.1.0	TREE PROTECTION DEVICE
51.1.1	DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES
51.2.0	SHRUB PROTECTION DEVICE
51.3.0	TREE WELL
51.4.0	TREE WALL

AB	ADJUST CATCH BASIN TO GRADE
ABM	ADJUST CATCH BASIN TO MANHOLE
AC	ADJUST CURB STOP TO GRADE
AD	ADJUST DRAINAGE MANHOLE TO GRADE
AE	ADJUST ELECTRIC MANHOLE TO GRADE
AFC	ADJUST FRAME AND COVER TO GRADE
AFG	ADJUST FRAME AND GRATE TO GRADE
AG	ADJUST GAS GATE BOX TO GRADE
AHH	ADJUST HANDHOLE TO GRADE
AS	ADJUST SANITARY SEWER MANHOLE TO GRADE
AT	ADJUST TELEPHONE MANHOLE TO GRADE
AW	ADJUST WATER GATE BOX TO GRADE
BCD	SEE JOB SPECIFIC LEGEND
BPS	BUILD NEW STRUCTURE OVER EXISTING PIPE
CCB	CLEAN CATCH BASIN
CCP	CUT AND CAP PIPE WITH RESTRAINT (ALL SIZES)
CFP	CLEAN AND FLUSH PIPE
CG	CLEARING AND GRUBBING
CMH	CLEAN MANHOLE
CP (DEPTH)	COLD PLANE
CPP	CUT AND PLUG PIPE (ALL TYPES, ALL SIZES)
DB	REMOVE AND DISPOSE BITUMINOUS CURB
DC	REMOVE AND DISPOSE CONCRETE CURB
DCB	REMOVE AND DISPOSE CATCH BASIN
DDI	REMOVE AND DISPOSE DROP INLET
DF	REMOVE AND DISPOSE FENCE
DFC	REMOVE AND DISPOSE FRAME AND COVER
DFF	REMOVE AND DISPOSE FLARED END SECTION
DFG	REMOVE AND DISPOSE FRAME AND GRATE
DFH	REMOVE AND DISPOSE FIRE HYDRANT
DFP	REMOVE AND DISPOSE FLEXIBLE PAVEMENT
DG	REMOVE AND DISPOSE GUARDRAIL
DH	REMOVE AND DISPOSE HEADWALL
DHB	REMOVE AND DISPOSE HIGHWAY BOUND
DHH	REMOVE AND DISPOSE HANDHOLE
DL	REMOVE AND DISPOSE LIGHT AND FOUNDATION
DMB	REMOVE AND DISPOSE MEDIAN BARRIER
DMH	REMOVE AND DISPOSE MANHOLE
DMM	REMOVE AND DISPOSE MEDIAN MARKER
DOW	REMOVE AND DISPOSE OBSERVATION WELL
DP	REMOVE AND DISPOSE PIPE
DPB	REMOVE AND DISPOSE PAVEMENT AND RIGID BASE
DRB	REMOVE AND DISPOSE RIGID BASE
DS	REMOVE AND DISPOSE SIGN
DSS	REMOVE AND DISPOSE TRAFFIC SIGNAL SYSTEM
DSW	SEE JOB SPECIFIC LEGEND
DTD	REMOVE AND DISPOSE TELEPHONE DUCT BANKS
DUP	REMOVE AND DISPOSE UTILITY POLE
DWW	REMOVE AND DISPOSE PAVED WATERWAY
FF	FILTER FABRIC RIPRAP FLARED END UNDERLAYMENT
GET	FLARED GUARDRAIL END TREATMENT
IA	IMPACT ATTENUATOR
IDL	IMPERVIOUS DITCH LINER
LOD	LIMIT OF DISTURBANCE
LOR	LIMIT OF REGRADING
LS	4" LOAM AND SEED

NFH	NEW FIRE HYDRANT WITH GATE VALVE
NIC	NOT IN THIS CONSTRUCTION CONTRACT
NWB	FURNISH AND INSTALL NEW WATER GATE VALVE BOX
NWVB	FURNISH AND INSTALL NEW WATER GATE VALVE AND BOX
NWCB	FURNISH AND INSTALL NEW WATER CURB STOP BOX
NWSB	FURNISH AND INSTALL NEW WATER CURB STOP AND BOX
PCD	PERMANENT CHECK DAM
PS	4" PLANTABLE SOIL AND SEED
RCB	RECONSTRUCT TYPE "D" CATCH BASIN, TO CATCH BASIN WITH GUTTER INLET
RCM	R.I.D.O.T. COMMUNICATIONS MANHOLE
RHH	REMOVE, HANDLE, HAUL, TRIM, RESET CURB EDGING, STRAIGHT, CIRCULAR (ALL TYPES)
RLP	RELOCATE LAMP POST
RMB	RELOCATE MAILBOX (BY OTHERS)
RPM	REMOVE PAVEMENT MARKINGS
RRP	RIP-RAP PAD (SEE DETAIL)
RRS	REMOVE AND RELOCATE SIGN
RUP	RELOCATE UTILITY POLE (BY OTHERS)
SB	STONE BAFFLE
SBAE	STEEL BEAM BRIDGE CONNECTION APPROACH END (W/O NESTED RAIL)
SBTE	STEEL BEAM BRIDGE CONNECTION TRAILING END (W/NESTED RAIL)
SD-	STRUCTURAL DISPOSITION - SEE CS PAGES OF SPECIFICATION
SF	REMOVE AND STOCKPILE FENCE
SGA	SPECIAL GRADED AGGREGATE
SGC	REMOVE AND STOCKPILE GRANITE CURB
SGR	REMOVE AND STOCKPILE GUARDRAIL
SH	REMOVE AND STOCKPILE HYDRANT
SS	REMOVE AND STOCKPILE SIGN
STS	REMOVE AND STOCKPILE TRAFFIC SIGNAL SYSTEM
TB	CONCRETE THRUST BLOCK
TEP	TIE EXISTING PIPE INTO NEW STRUCTURE
TNP	TIE NEW PIPE INTO EXISTING STRUCTURE
TBT	THREE BEAM TRANSITION
TBBC	THREE BEAM BRIDGE CONNECTION
TT	TREE TRIMMING
WCM	4" WOOD CHIP MULCH
4DY	4" EPOXY RESIN PAVEMENT MARKINGS - DOUBLE YELLOW
6W	6" EPOXY RESIN PAVEMENT MARKINGS - WHITE
12W	12" EPOXY RESIN PAVEMENT MARKINGS - WHITE
6WT	6" PREFORMED PATTERNED MARKING (HIGH PERFORMANCE TAPE)
4Y	4" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
6Y	6" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
P.G.L.	PROFILE GRADE LINE

REVISIONS			CITY OF PROVIDENCE	
NO.	DATE	BY		
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1 PROVIDENCE RHODE ISLAND	
			STANDARD LEGEND & SYMBOLS	
			DWN:	CHECKED: DATE: SCALE: NONE



JOB SPECIFIC LEGEND

100.75	DENOTES FINISH GRADE
BCD	CLASS 9.5 HMA (DEPTH TO MATCH HMA OVERLAY DEPTH)
BLM	WHITE EPOXY BICYCLE LANE SYMBOL PAVEMENT MARKING
BSM	WHITE EPOXY SHARED LANE SYMBOL PAVEMENT MARKING
CBP	CATCH BASIN INLET PROTECTION
CCD	8" CEMENT CONCRETE ON 8" GRAVEL BORROW SUBBASE
CFC	CHUTE FRAME AND COVER, PROVIDENCE STANDARD 6.1.2P
CFS	COMPOST FILTER SOCK
CP (X")	COLD PLANE (DEPTH)
CPGT (X")	COLD PLANE (DEPTH) WITH GUTTER TRANSITION
CRB (X")	COLD RECYCLED BASE (DEPTH)
DGC	REMOVE AND DISPOSE GRANITE CURB
DOT	6" WHITE DOTTED PAVEMENT MARKING (SEE DETAIL)
DOT2	6" WHITE DOTTED PAVEMENT MARKING (SEE DETAIL)
DR-1	R.I. STD. 3.6.0, DROP INLET , PROV. STD. 7.3.6P, GRANITE INLET STONE, & PROV. STD. 6.2.1P, HEAVY DUTY FRAME & COVER
DR-2	R.I. STD. 4.5.2, DROP INLET , PROV. STD. 7.3.7P, GRANITE APRON STONE, & PROV. STD. 6.3.4P, FRAME & GRATE
DSW	REMOVE AND DISPOSE SIDEWALK, USE PROVIDENCE STD. 43.1.1P AS REQUIRED
DWS	DETECTABLE WARNING SYSTEM CAST IN PLACE
ETR	EXISTING TO REMAIN
FG	NEW FRAME AND GRATE, PROVIDENCE STD. 6.3.4P
GCA	GRANITE APRON STONE, 7" WIDTH, PROVIDENCE STD. 7.3.7P, WITH PROV. STD. 7.6.0P
GCC	GRANITE CURB CIRCULAR, 7" WIDTH, PROVIDENCE STD. 7.3.0P, WITH PROV. STD. 7.6.0P
GCI	GRANITE CURB INLET STONE, 7" WIDTH, PROVIDENCE STD. 7.3.6P, WITH PROV. STD. 7.6.0P
GCR	GRANITE CURB RETURN 2'-0" RADIUS, PROVIDENCE STD. 7.3.4P, WITH PROV. STD. 7.6.0P
GCS	GRANITE CURB STRAIGHT, 7" WIDTH, PROVIDENCE STD. 7.3.0P, WITH PROV. STD. 7.6.0P
GTC	GRANITE TRANSITION CURB, 7" WIDTH, PROVIDENCE STD. 7.3.3P, WITH PROV. STD. 7.6.0P
GWS	GRANITE WHEELCHAIR RAMP STONE, 7" WIDTH, PROV. STD. 7.3.9P, WITH PROV. STD. 7.6.0P
MHC	MANHOLE FRAME AND COVER, PROVIDENCE STD. 6.2.1P
MM (X")	MICROMILLING
NGB	NEW GAS GATE VALVE BOX
RD (ITEM)	REMOVE AND DISPOSE (ITEM)
RFBC	REMOVE FLEXIBLE PAVEMENT TO CONCRETE BASE BY MICROMILLING
RRSP	REMOVE AND RESET SIGN POST
RMH	RECONSTRUCT MANHOLE
RS (ITEM)	REMOVE AND STOCKPILE (ITEM)
SGCR	STOCKPILE GRANITE CURB RETURN
SGI	STOCKPILE GRANITE INLET STONE
SMC	REMOVE AND SALVAGE MANHOLE FRAME AND COVER
TT	TREE TRIMMING
TTR	TRIM TREE ROOTS
YL	YIELD LINE
12W	12" EPOXY RESIN WHITE PAVEMENT MARKING
12CW	12" EPOXY RESIN WHITE PAVEMENT MARKING CROSSWALK (SEE DETAIL)
6.3.5P	HIGH CAPACITY GRATE AND 4 FLANGE FRAME
7.4.0	GRANITE SLOPED FACE CURB, WITH PROV. STD. 7.6.0P
7.6.0P	CURB SETTING DETAIL
24.1.0	SIGN POST SELECTION AND INSTALLATION DETAILS SQUARE POST, R.I. STD. 24.1.0
24.2.0	SIGN POST SELECTION AND INSTALLATION DETAILS, R.I. STD. 24.2.0
26.1.0	FLUORESCENT TRAFFIC CONE, R.I. STD. 26.1.0
27.1.1	TRAFFIC FINES IN WORK ZONE REGULATORY SIGN, R.I. STD. 27.1.1
29.1.0	CONSTRUCTION SIGNS, R.I. STD. 29.1.0
43.1.0P	CEMENT CONCRETE SIDEWALK
43.1.1P	SIDEWALK REMOVAL DETAIL
43.3.0	WHEEL CHAIR RAMP
43.3.1	WHEEL CHAIR RAMP IN LIMITED RIGHT-OF-WAY
43.3.2	WHEEL CHAIR RAMP LANDING FOR NARROW SIDEWALKS
43.5.0P	CEMENT CONCRETE DRIVEWAYS
60.4.0P	INLET/APRON STONE REVEAL
A (X")	CLASS 9.5 HMA (DEPTH)
9g	TRAFFIC DETECTOR, LOOP TYPE (R.I. STD. 19.6.0)
X	STREET SIGN DESIGNATION SEE MISCELLANEOUS DETAILS - 2

JOB SPECIFIC NOTES

1.

MAPPING FOR THE PROJECT WAS PROVIDED BY: THE CITY OF PROVIDENCE. ALL INFORMATION SHOWN ON THE BASE MAPPING MUST BE FIELD VERIFIED BY THE CONTRACTOR. HORIZONTAL DATUM IS ASSUMED. VERTICAL DATUM IS ASSUMED.
2.

PROPERTY BOUNDARY LINE INFORMATION IS GRAPHIC.
3.

REFERENCE IS MADE TO THE RIDOT AMENDED AUGUST 2013 "STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS; AND RIDOT 1998 "STANDARD DETAILS". ALL PROJECT SITE IMPROVEMENTS SHALL CONFORM TO THESE REGULATIONS AND THE SUB-REFERENCES INCORPORATED THEREIN WHERE REFERENCED IN THE CONTRACT DOCUMENTS.
4.

THE CONTRACTOR SHALL MAKE APPLICATION FOR AND PAY ALL FEES FOR ANY/ALL OTHER PERMITS REQUIRED BY THE CITY OF PROVIDENCE.
5.

CONSTRUCTION WILL BE SUBJECT TO INSPECTION BY CITY OF PROVIDENCE (OWNER) AND IT'S DESIGNATED AGENT.
6.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7.

EXISTING UTILITIES HAVE BEEN PLOTTED FROM BEST AVAILABLE DATA AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH THE "DIG SAFE LAW" ENACTED BY R.I. LEGISLATURE BILL NO. 795-291, WHICH BECAME EFFECTIVE JULY 1, 1979 AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY APPLICABLE CITY, TOWN, STATE OR FEDERAL AGENCY. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE DIG SAFE PROGRAM. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND ENSURE THAT ALL UTILITIES HAVE BEEN MARKED PRIOR TO COMMENCING THEIR WORK. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANY, SHALL BE REPAIRED OR REPLACED AT NO COST TO THE OWNER.
8.

BUILDING SERVICE CONNECTIONS (ELECTRIC, GAS, TELEPHONE) ARE NOT SHOWN. THE CONTRACTOR SHALL ASSUME SERVICES ARE PRESENT TO ALL BUILDINGS. THE SERVICE LOCATION SHALL BE CHECKED WITH UTILITY COMPANY OR AUTHORITY CONCERNED. UTILITY SERVICES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
9.

LOCATIONS AND DEPTHS OF EXISTING UNDERGROUND PIPES, CONDUITS, AND STRUCTURES, AS SHOWN, ARE APPROXIMATE ONLY, BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL PERFORM, AT HIS EXPENSE, TEST PITS, TO DETERMINE THE EXACT LOCATIONS OF UTILITIES AND STRUCTURES ESPECIALLY FOR CONNECTIONS TO EXISTING UTILITIES. ANY EXPENSE AND/OR DELAY CAUSED BY UTILITIES AND STRUCTURES, OR DAMAGE THERETO, INCLUDING THOSE NOT SHOWN, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. ANY AND ALL STRUCTURES DESIGNATED FOR REMOVAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR.
10.

THE CONTRACTOR SHALL MAINTAIN ALL EXCAVATION IN A DRY CONDITION. NO SEPARATE PAYMENT OR ALLOWANCE SHALL BE MADE FOR DEWATERING.
11.

ALL EXISTING CURBING, SIDEWALK AND OTHER PAVEMENT DISTURBED BY THE CONTRACTOR SHALL BE REPLACED AND RESTORED, IN KIND AT NO ADDITIONAL COST TO THE OWNER.
12.

CONTRACTOR SHALL INSTALL AND MAINTAIN SHEETING AND BRACING OR OTHER SUITABLE TRENCH PROTECTION AS NECESSARY TO PROTECT WORKMEN AND THE PUBLIC ON OR NEAR THE SITE. THE CONTRACTOR SHALL PREVENT INJURIOUS CAVING OR EROSION, OR LOSS OF GROUND AND MAINTAIN AT ALL TIMES PEDESTRIAN AND VEHICULAR TRAFFIC, AND PROTECT ADJACENT STRUCTURES.
13.

CONTINUOUS DUST CONTROL, USING CALCIUM CHLORIDE OR OTHER APPROVED METHODS, SHALL BE PROVIDED BY THE CONTRACTOR FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS AND SURFACES OF BACK FILLED TRENCHES, AS DIRECTED AND SPECIFIED BY THE ENGINEER.
14.

THE CONTRACTOR SHALL ESTABLISH HIS OWN CONTROL FOR SURVEY, WITH A SURVEY CREW, AND WILL BE RESPONSIBLE FOR ALL SURVEY WORK, INCLUDING RECORDING EXISTING ELEVATIONS, ESTABLISHING PROPOSED GRADES, AND FOR ALL LAYOUT WORK NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS. ALL COSTS ASSOCIATED WITH SURVEY AND LAYOUT WORK WILL BE CONSIDERED INCIDENTAL TO THE VARIOUS ITEMS OF WORK.
15.

FOR CURBING THAT NEEDS TO BE REPLACED, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL CURB DIMENSIONS AND RADII PRIOR TO ORDERING NEW CURB AND REMOVAL OF THE OLD CURB. THE COST OF THIS WORK SHALL BE INCIDENTAL TO THE VARIOUS ITEMS OF WORK.
16.

THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH ALL PERMITS, LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK AS DRAWN AND SPECIFIED.
17.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL.
18.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATING HIS WORK WITH THE TELEPHONE, WATER, CABLE TV, ELECTRIC AND GAS COMPANIES. THE OWNER WILL NOT BE RESPONSIBLE FOR ANY LOST TIME BY THE CONTRACTOR IN DELAYS IN THE CONTRACTOR'S WORK CAUSED BY CONSTRUCTION ACTIVITIES OF THE TELEPHONE, ELECTRIC, WATER OR GAS COMPANIES.
19.

THE COST OF CUT-INS IS TO BE INCLUDED IN COST OF MANHOLES.
20.

DUE TO THE POSSIBILITY OF IGNITION FROM ESCAPING GAS DURING CONSTRUCTION AND PRESENCE OF OTHER TYPES OF POTENTIALLY HAZARDOUS GASES, ETC., SMOKING AND OPEN FLAMES SHALL BE PROHIBITED IN ALL OPEN TRENCHES AND OTHER UNDERGROUND SPACES. IN ADDITION THE CONTRACTOR SHALL HAVE ON HAND AND SHALL UTILIZE GAS DETECTION DEVICES TO CHECK AND MONITOR ALL SUCH SPACES BEFORE AND DURING WORKING IN THESE AREAS. GAS DETECTION DEVICES SHALL BE SUPPLIED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
21.

FRAMES AND GRATES ARE TO BE DEPRESSED 0.1' UNLESS OTHERWISE NOTED, AND IN ALL CASES THE PAVEMENT SHALL BE SHAPED TO PROVIDE A SMOOTH TRANSITION TO THE GRATE.
22.

THE CONTRACTOR SHALL DEMONSTRATE EXTREME CARE WHEN CLEANING AND FLUSHING PIPES AND DRAINAGE STRUCTURES SO AS NOT TO DAMAGE THE EXISTING STRUCTURE.
23.

ALL PROPERTY BOUNDS/MONUMENTATION SHALL BE PROTECTED AND MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR. ANY DISTURBED BOUND/MONUMENTATION SHALL BE RESET BY A LICENSED RI SURVEYOR AT THE CONTRACTOR'S EXPENSE.
24.

ALL MANHOLE COVERS, GRATES AND GATE BOXES WITHIN PROPOSED ROAD PAVING AND PROPOSED SIDEWALKS SHALL BE ADJUSTED TO PROPOSED GRADE INCLUDING CONCRETE COLLARS. THE COST OF CONCRETE COLLARS WILL BE INCLUDED IN THE APPLICABLE ADJUST PAY ITEMS.
25.

ALL INLETS AND CATCH BASINS AND THEIR PIPE LATERALS WITHIN THE PAVING LIMITS SHALL BE CLEANED AND FLUSHED.
26.

THE APPLICATION FEE TO "ADJUST NARRAGANSETT BAY COMMISSION (NBC) MANHOLES TO GRADE" AND ALL WORK REQUIRED TO COMPLY WITH NBC REQUIREMENTS WILL BE INCLUDED IN ITEM 707.1000 ADJUST SANITARY SEWER.
27.

THE CONTRACTOR SHALL FIRST REUSE ANY EXCESS RECLAIMED MATERIAL ON OTHER STREETS, IF NEEDED. OTHERWISE ALL EXCESS RECLAIMED MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND HAULED OFF SITE.
28.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO WALLS AND FENCES ABUTTING SIDEWALKS AND DRIVEWAYS DESIGNATED FOR REPLACEMENT. WHERE REQUIRED, NEW SIDEWALKS SHALL MEET SAID WALLS AND FENCES. PRIOR TO SIDEWALK REMOVAL, A SAWCUT SHALL BE PROVIDED IN ALL SIDEWALKS TO BE REMOVED A DISTANCE, TO BE DETERMINED BY THE ENGINEER (6 INCHES MINIMUM), FROM THE FACE OF ADJACENT BUILDINGS, RETAINING WALLS, AND FENCES. THE FINAL 6 INCHES (MINIMUM) OF SIDEWALK WILL BE REMOVED WITH CAUTION UNDER THE ENGINEER'S SUPERVISION. THERE WILL BE NO ADDITIONAL PAYMENT FOR LABOR OR EQUIPMENT NECESSARY TO MEET THIS "REMOVE WITH CAUTION" REQUIREMENT.
29.

THE CONTRACTOR SHALL INSTALL COMPOST FILTER SOCKS IN FRONT OF EXISTING DROP INLETS AND CATCH BASINS SILK SACKS AS NEEDED FOR EROSION CONTROL. THE FINAL REMOVAL AND DISPOSAL OF THE COMPOST FILTER SOCKS IS INCLUDED UNDER ITEM 206.0302. THE CONTRACTOR SHALL MAINTAIN AND REPLACE AS NECESSARY AT HIS OWN EXPENSE.
30.

ADDITIONAL EXCAVATION MAY BE REQUIRED ALONG THE EXISTING CURBLINES AND WILL BE PAID FOR UNDER ITEM "202.0100 EARTH EXCAVATION". THE CONTRACTOR SHALL SHAPE, TRIM, GRADE, AND COMPACT THE SURFACE WHICH THE PAVEMENT SHALL BE PLACED AS DIRECTED BY THE ENGINEER. THIS WORK, INCLUDING ALL THE NECESSARY EQUIPMENT TO ACHIEVE THE PROPER ROADWAY ELEVATIONS WILL BE PAID FOR UNDER ITEM 204.0100 "TRIMMING AND FINE GRADING".
31.

IT SHOULD BE NOTED THAT MICROMILLING TO THE DEPTHS SHOWN ON THE PLANS WILL MOST LIKELY REMOVE THE ENTIRE EXISTING PAVEMENT STRUCTURE CURB TO CURB. IF THE ROADWAY SUBBASE IS EXPOSED, THE CONTRACTOR SHALL SHAPE, TRIM, GRADE, AND COMPACT THE SURFACE WHICH THE PAVEMENT SHALL BE PLACED AS DIRECTED BY THE ENGINEER. THIS WORK, INCLUDING ALL THE NECESSARY EQUIPMENT TO ACHIEVE THE PROPER ROADWAY ELEVATIONS, AND COMPACTION WILL BE CONSIDERED INCIDENTAL TO THE VARIOUS ITEMS OF WORK AND WILL NOT BE PAID FOR SEPARATELY.
32.

ANY DAMAGE TO EXISTING BRIDGE JOINTS CAUSED BY THE CONTRACTOR'S OPERATIONS WILL BE PAID AT HIS OWN EXPENSE.
33.

ALL FRAMES SHALL BE THREE (3) FLANGED UNLESS NOTED OTHERWISE ON THE PLANS.
34.

DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL AT NO ADDITIONAL COST TO THE CITY.
35.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN RE-ESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN ANYWHERE IN THE ROADWAY OR AT/ON WHEELCHAIR RAMPS. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION. IT SHALL BE CONSIDERED INCIDENTAL TO PAVING AND MICROMILLING OPERATIONS.
36.

THE MAXIMUM PAVEMENT LIFT SHALL BE 2 INCHES. FOR A 3 INCH OVERLAY, 2 -1 ½" LIFTS SHALL BE INSTALLED. NO EXCEPTION WILL BE CONSIDERED.
37.

ADJUSTMENT OF EXISTING ELECTRIC MANHOLES TO GRADE SHALL BE PERFORMED BY AN APPROVED NGRID CONTRACTOR.
38.

ADJUSTMENT OF EXISTING TELEPHONE MANHOLES TO GRADE SHALL BE PERFORMED BY AN APPROVED VERIZON CONTRACTOR.
39.

ITEM 932.9902 FULL DEPTH SAW CUT OF EXISTING PAVEMENT STRUCTURE SHALL INCLUDE FULL DEPTH SAW CUT OF BITUMINOUS PAVEMENT OR BITUMINOUS PAVEMENT WITH RIGID BASE.
40.

THE CONTRACTOR SHALL CONTACT DOUGLAS STILL, CITY FORESTER, AT 785-9450 EXT. 7270, SEVENTY-TWO HOURS PRIOR TO WORKING ON ANY STREET THAT HAS PROPOSED TREE TRIMMING.
41.

ALL INLET AND APRON STONES SHALL HAVE IT'S FULL OPENING REVEALED AS SHOWN ON PROVIDENCE STD. 60.4.0P. THIS REQUIREMENT SHALL BE INCEDENTAL TO THE COST OF PAVING.
42.

THE CONTRACTOR SHALL BE AWARE THAT A SECTION OF GENTIAN AVE. FROM RAVENSWOOD AVE. TO FORBES ST. MAY REQUIRE AREAS OF FULL DEPTH PAVEMENT REPAIR. THE ACTUAL LIMITS AND DEPTHS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER AFTER MICROMILLING OPERATIONS HAVE BEEN COMPLETED.
43.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL CURB RADII PRIOR TO ORDERING THE NEW CURB FOR WHEELCHAIR RAMP WORK.
44.

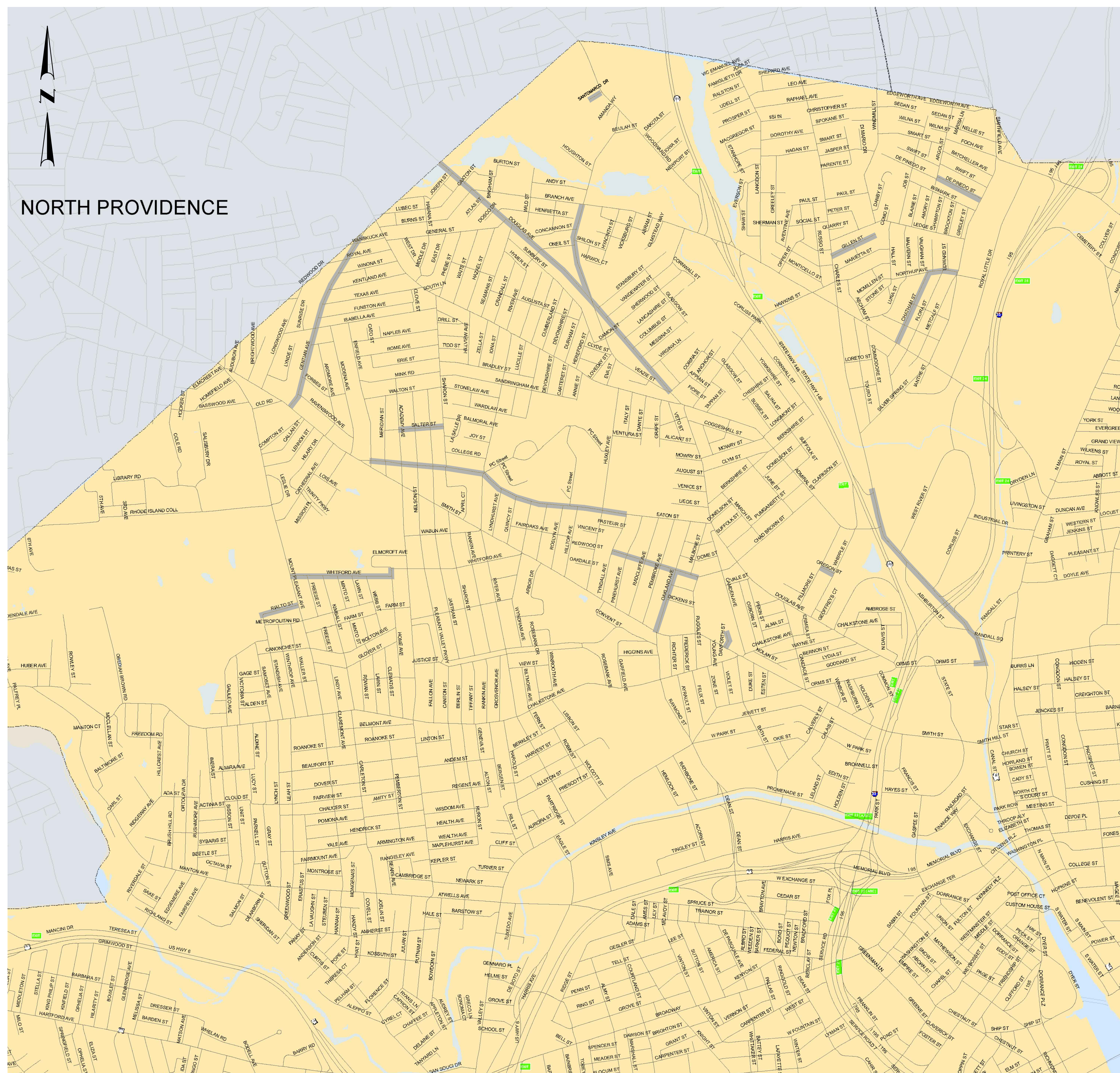
PROPOSED SPOT GRADES ON SANTOMARCO DRIVE WILL BE PROVIDED TO THE CONTRACTOR DURING CONSTRUCTION.
45.

PAYMENT FOR ITEM 942.0200 DETECTABLE WARNING SYSTEM R.I. STD. 48.1.0 SHALL INCLUDE STRAIGHT OR CURVED PANELS.
46.

COMPOST FILTER SOCK SHALL BE 8 INCH DIAMETER.

REVISIONS			CITY OF PROVIDENCE
NO.	DATE	BY	
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1 PROVIDENCE RHODE ISLAND
JOB SPECIFIC LEGEND AND NOTES			DWN:      CHECKED:      DATE:      SCALE: NONE





### LEGEND

ROAD IN CONTRACT

[illegible]

## CITY OF PROVIDENCE

PROVIDENCE 2018  
CAPITAL IMPROVEMENT PLAN  
ROAD PAVING CONTRACT 1

## KEY PLAN

DWN:	CHECKED:	DATE:	SCALE: N.T.S.
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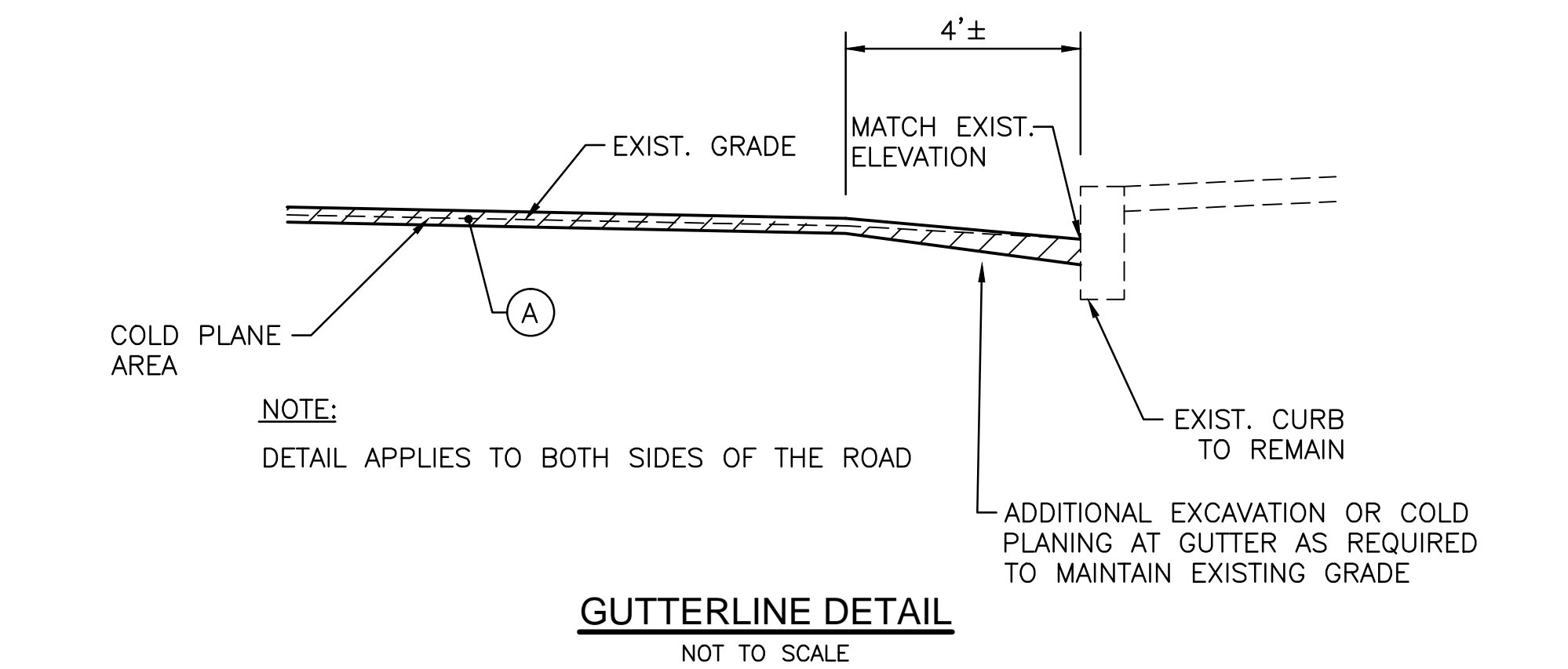
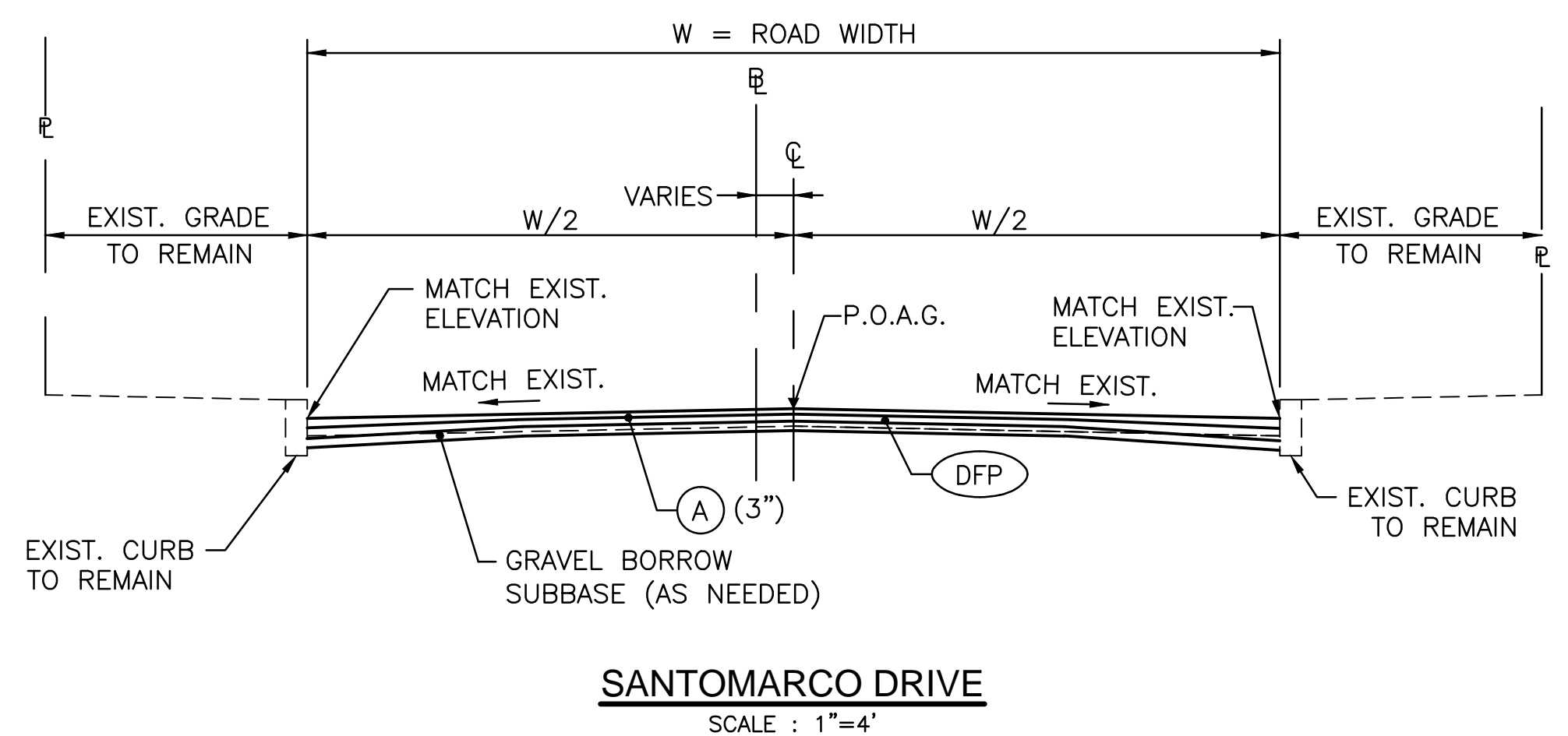
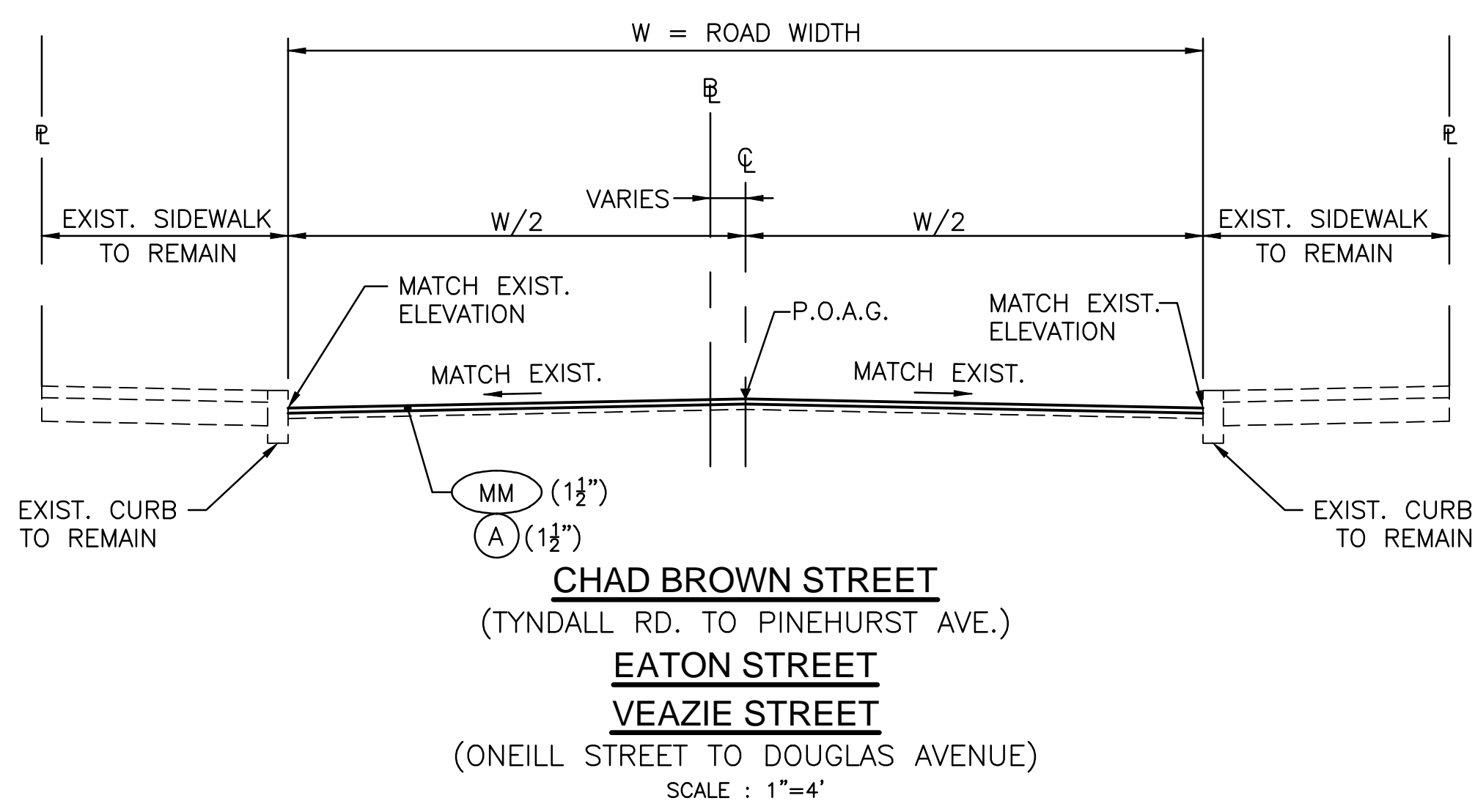
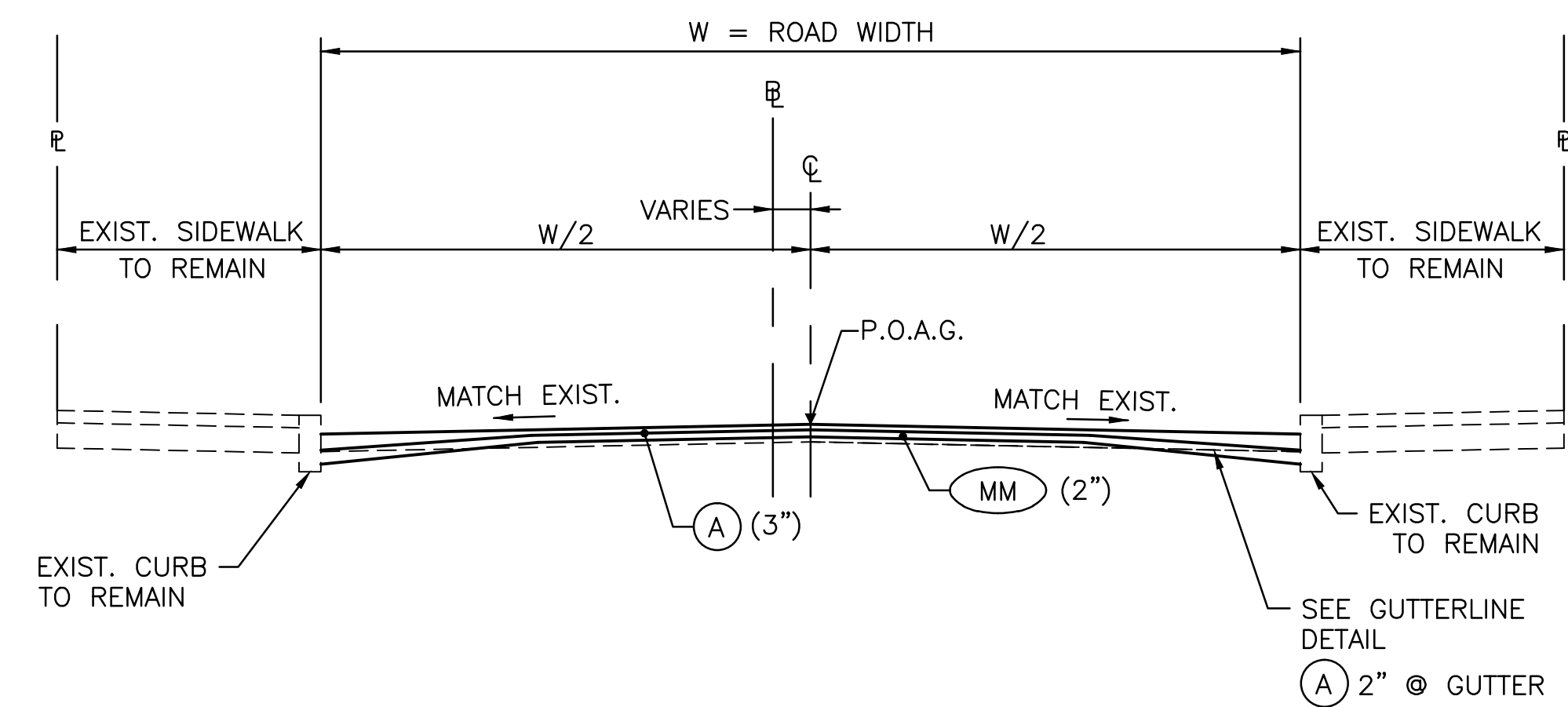
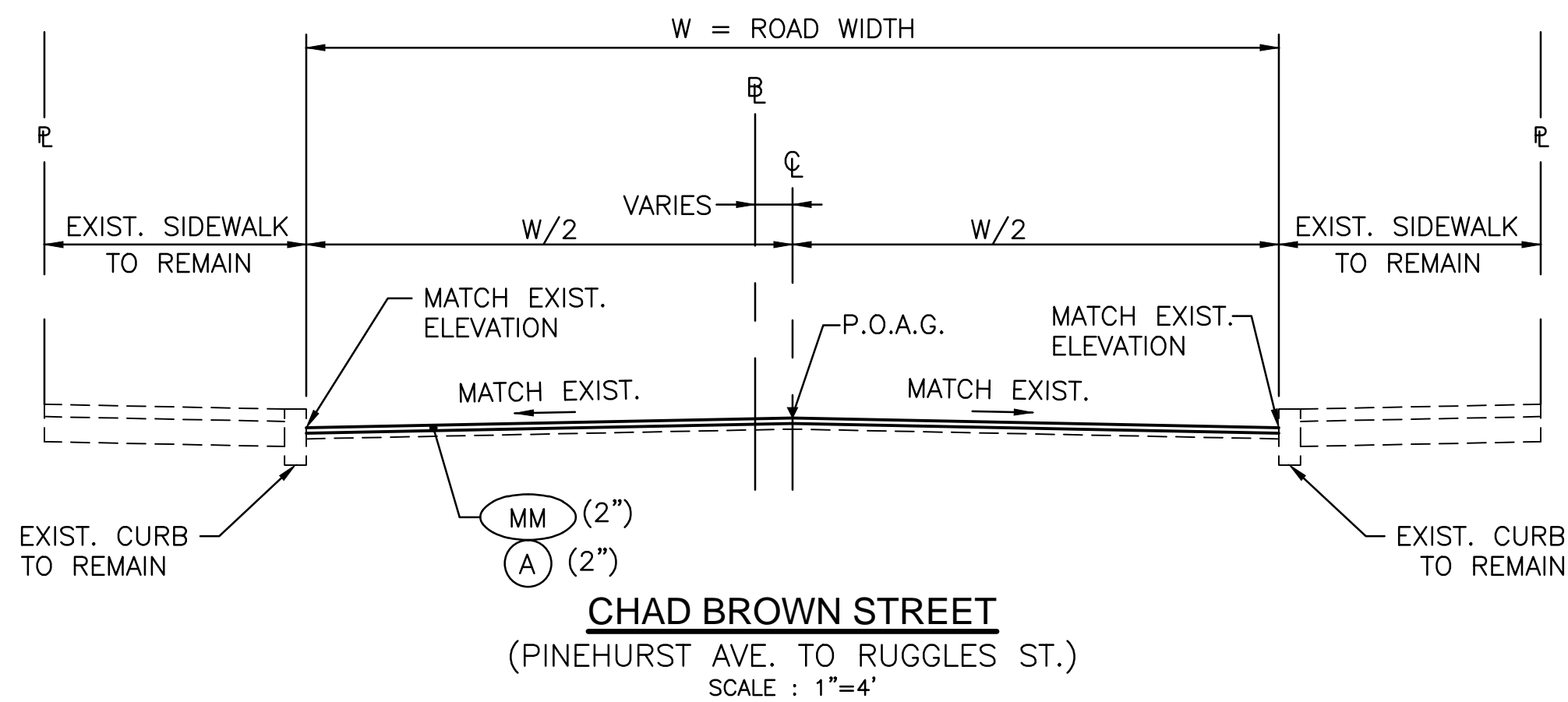
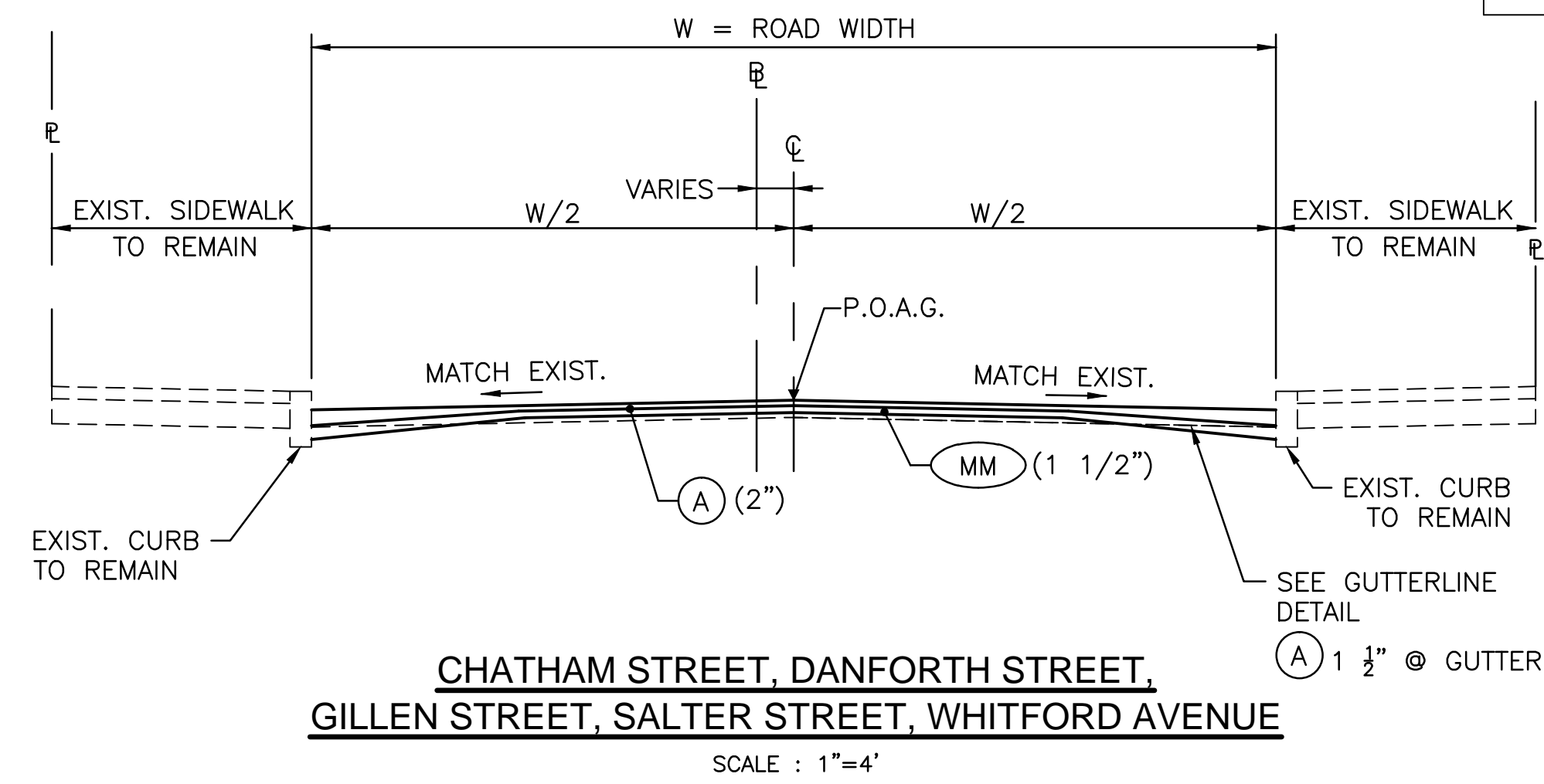
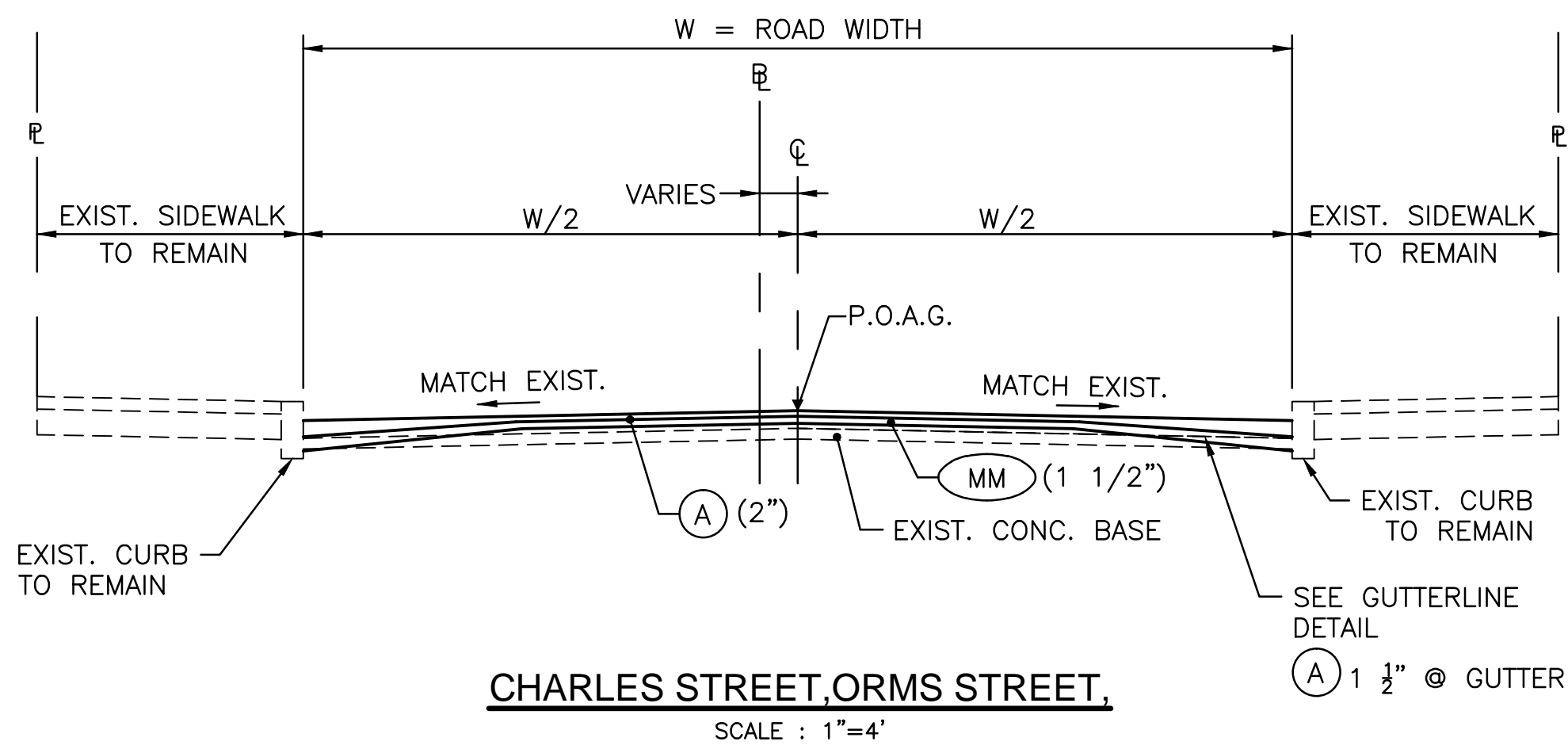
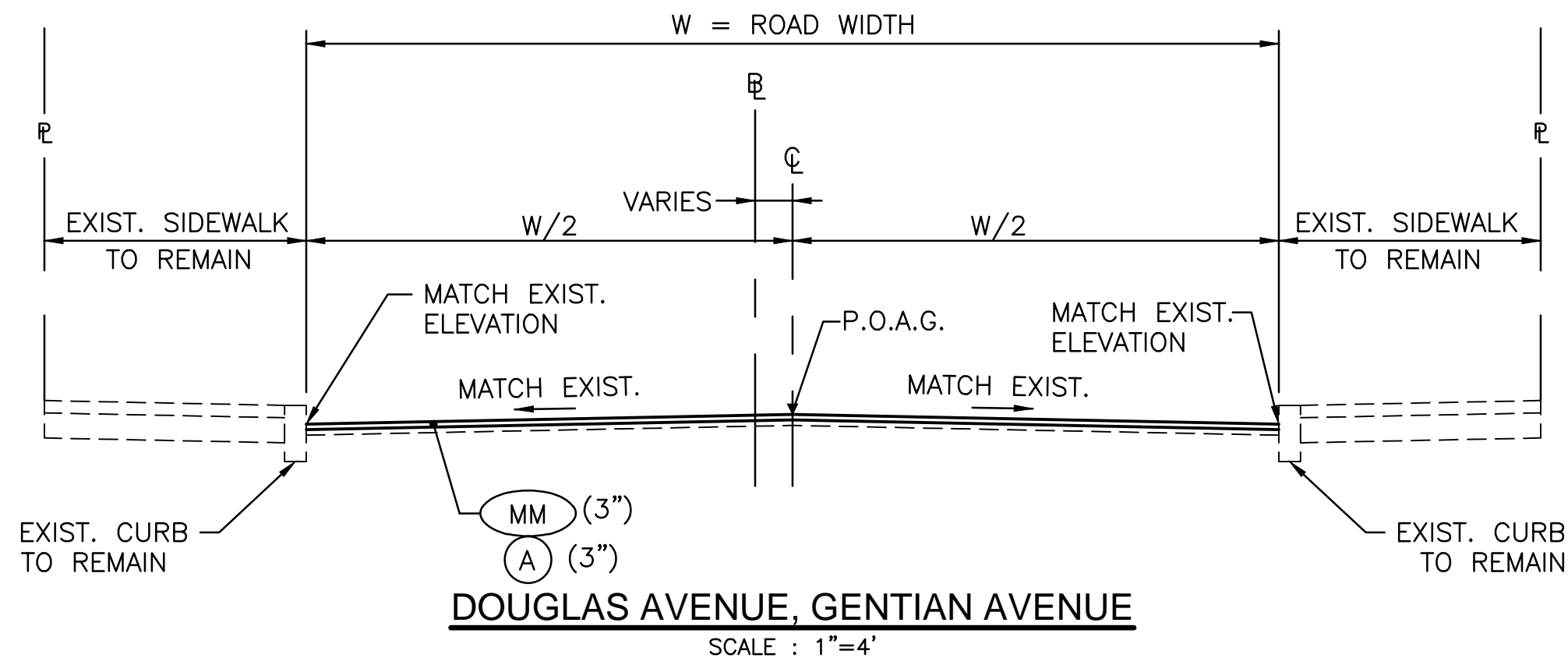


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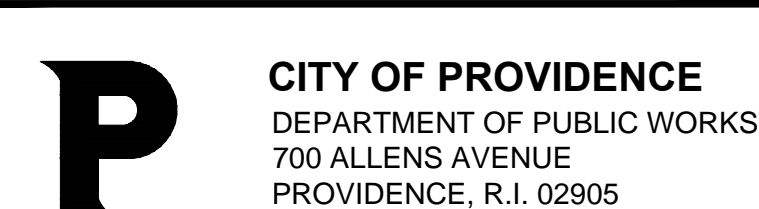


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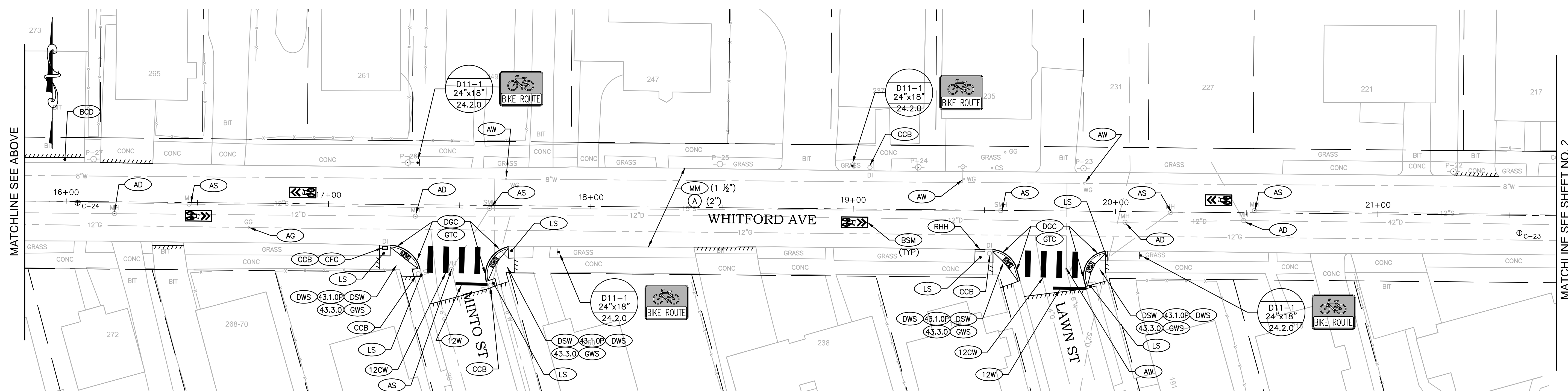




REVISIONS			CITY OF PROVIDENCE	
NO.	DATE	BY		
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1 PROVIDENCE RHODE ISLAND	
			TYPICAL SECTIONS	
			DWN:      CHECKED:      DATE:      AS SCALE: SHOWN	



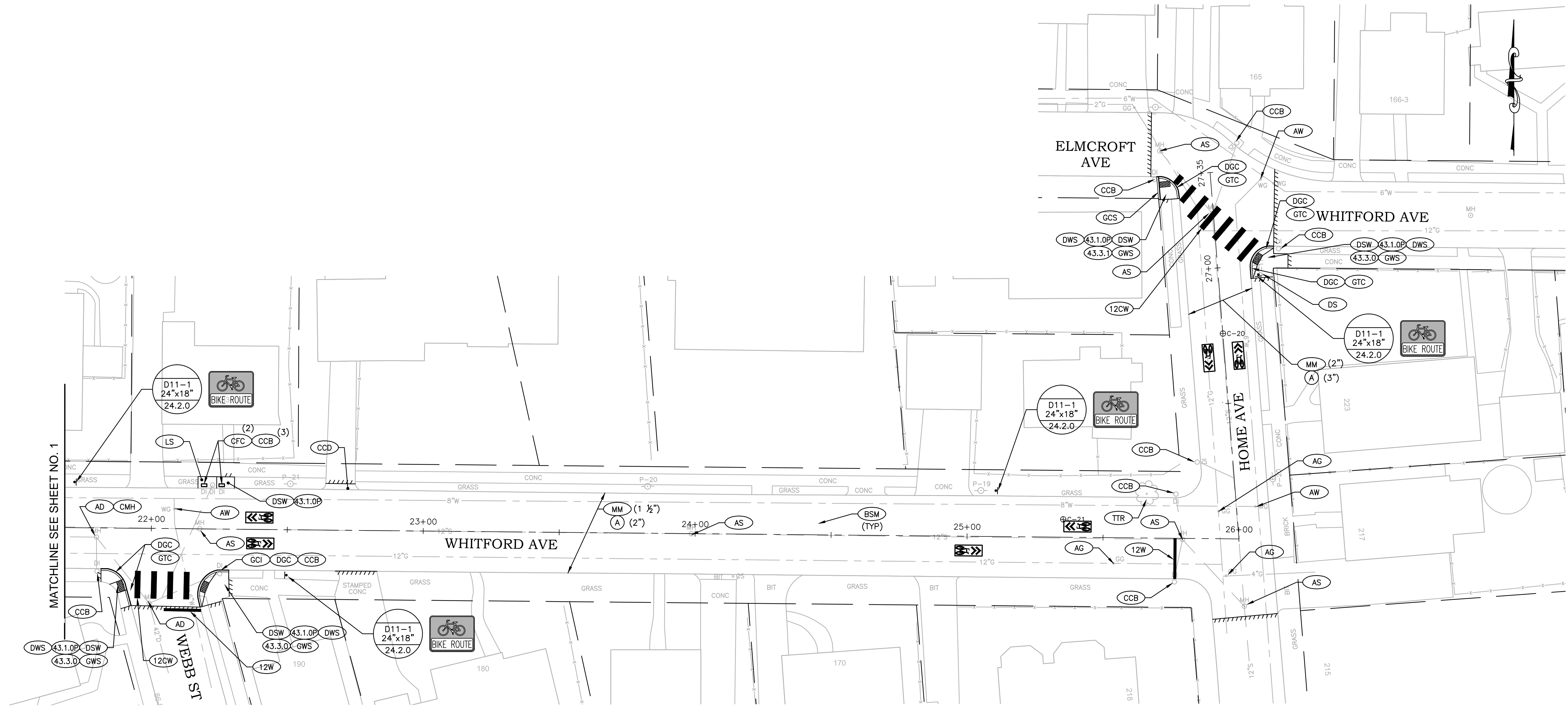




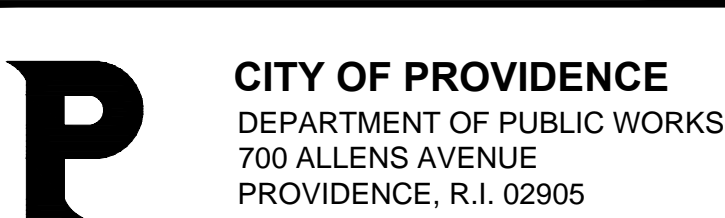
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NO.	DATE	BY		
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1 PROVIDENCE RHODE ISLAND	
			WHITFORD AVENUE (W) GENERAL PLAN 1	
			DWN:	CHECKED:

 <p><b>Gordon R. Archibald, Inc.</b> Civil and Environmental Engineers Pawtucket, Rhode Island</p>	 <p><b>CITY OF PROVIDENCE</b> DEPARTMENT OF PUBLIC WORKS 700 ALLENS AVENUE PROVIDENCE, R.I. 02905</p>
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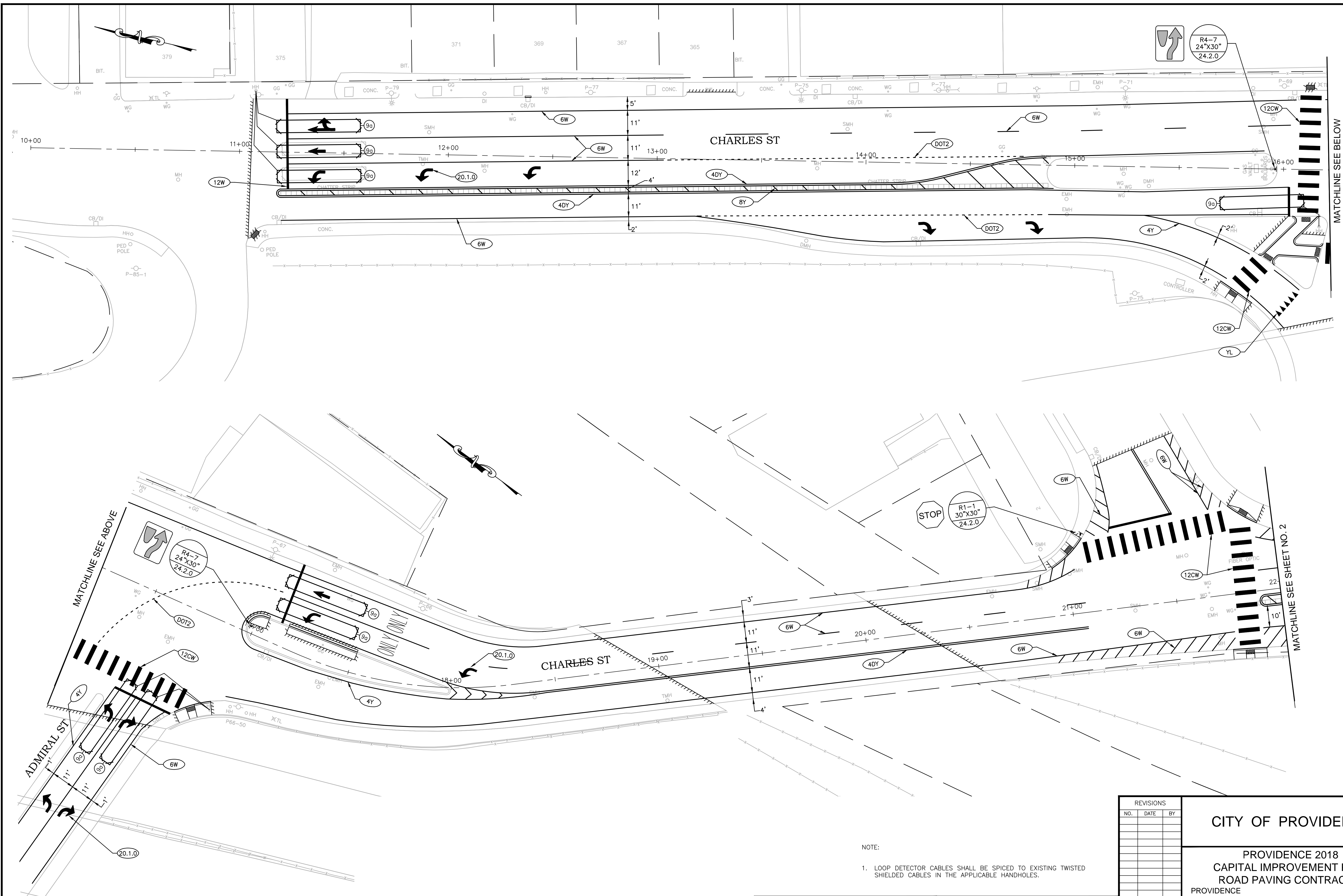


WHEEL CHAIR RAMP TRANSITION CHART					
LOCATION	CURB REVEAL	WIDTH OF RAMP	ROADWAY GUTTER SLOPE	TRANSITION LENGTH (LOOKING FROM ROAD)	
				LEFT SIDE	RIGHT SIDE
STA. 21+90 RT.	4"	4'-0"	0.5%	6'-0"	6'-0"
STA. 22+20 RT.	4"	4'-0"	0.8%	6'-0"	6'-0"
STA. 27+00 RT.	4"	4'-0"	1%	6'-0"	6'-0"
STA. 27+30 LT.	4"	4'-0"	1%	6'-0"	-



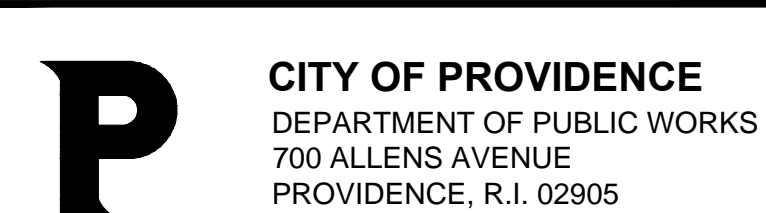
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NO.	DATE	BY	
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1 PROVIDENCE RHODE ISLAND
			WHITFORD AVENUE (W) & HOME AVENUE GENERAL PLAN 2
			DWN:      CHECKED:      DATE:      SCALE: 1"=20'





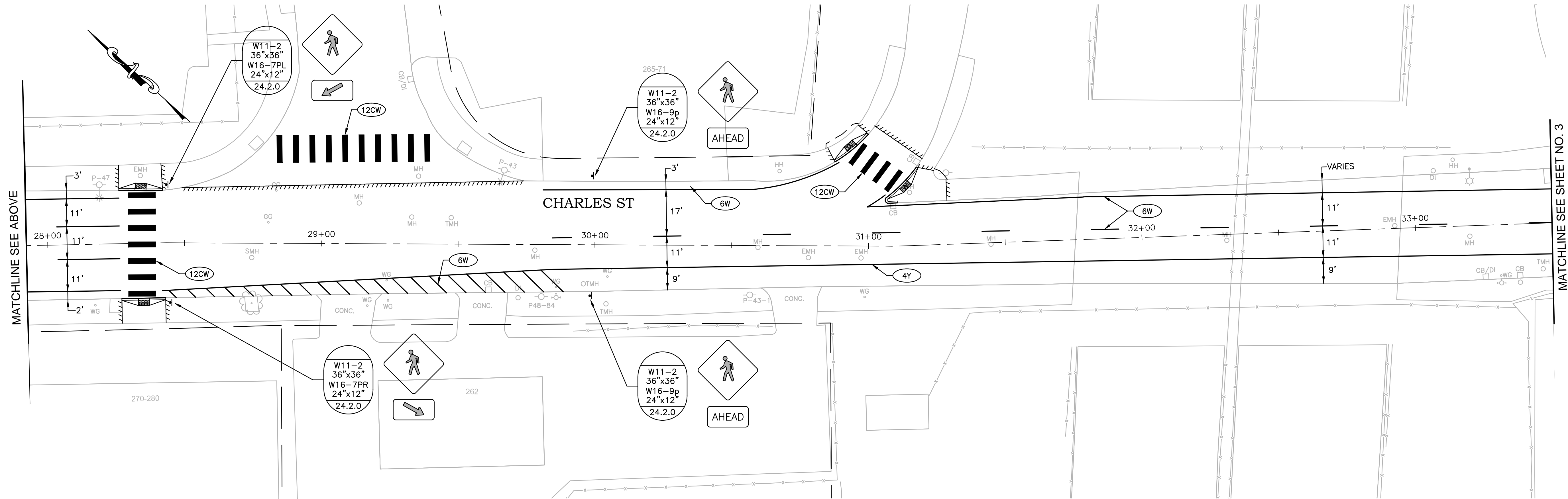
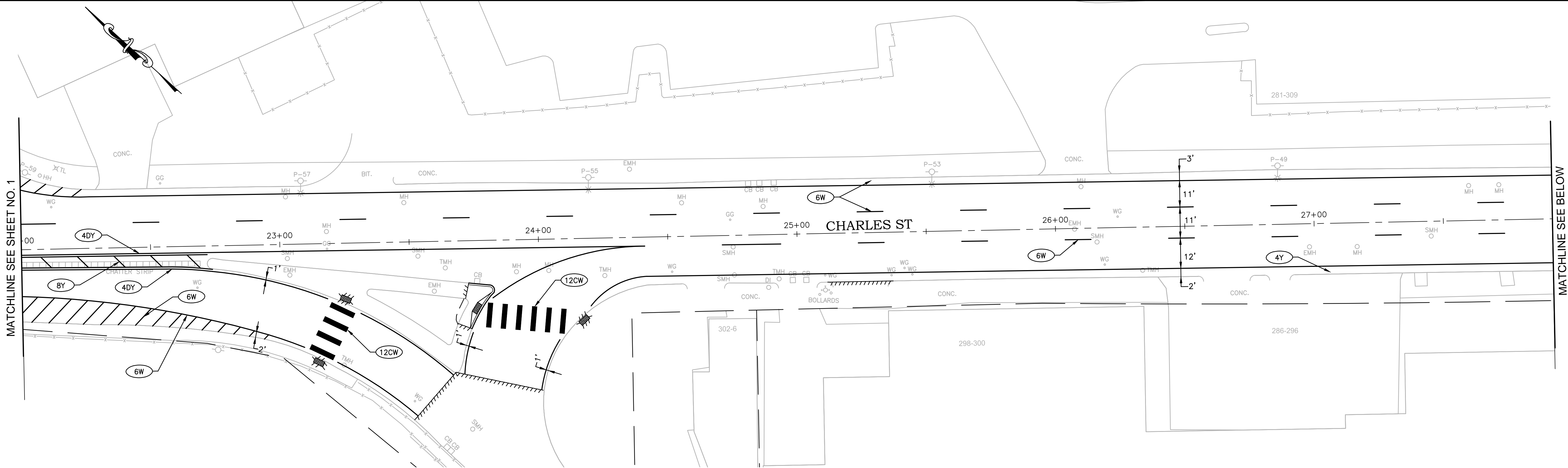
NOTE:

1. LOOP DETECTOR CABLES SHALL BE SPICED TO EXISTING TWISTED SHIELDED CABLES IN THE APPLICABLE HANDHOLES.




REVISIONS			CITY OF PROVIDENCE	
NO.	DATE	BY		
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1 PROVIDENCE RHODE ISLAND	
			CHARLES ST SIGNING & STRIPING PLAN 1	
			DWN:	CHECKED: DATE: SCALE: 1"=20'






REVISIONS			CITY OF PROVIDENCE	
NO.	DATE	BY		
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1 PROVIDENCE RHODE ISLAND	
			CHARLES ST SIGNING & STRIPING PLAN 2	
			DWN:	CHECKED: DATE: SCALE: 1"=20'



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NO.	DATE	BY	
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1  PROVIDENCE RHODE ISLAND
			CHARLES ST SIGNING & STRIPING PLAN 3
DWN:	CHECKED:	DATE:	SCALE: 1"=20'



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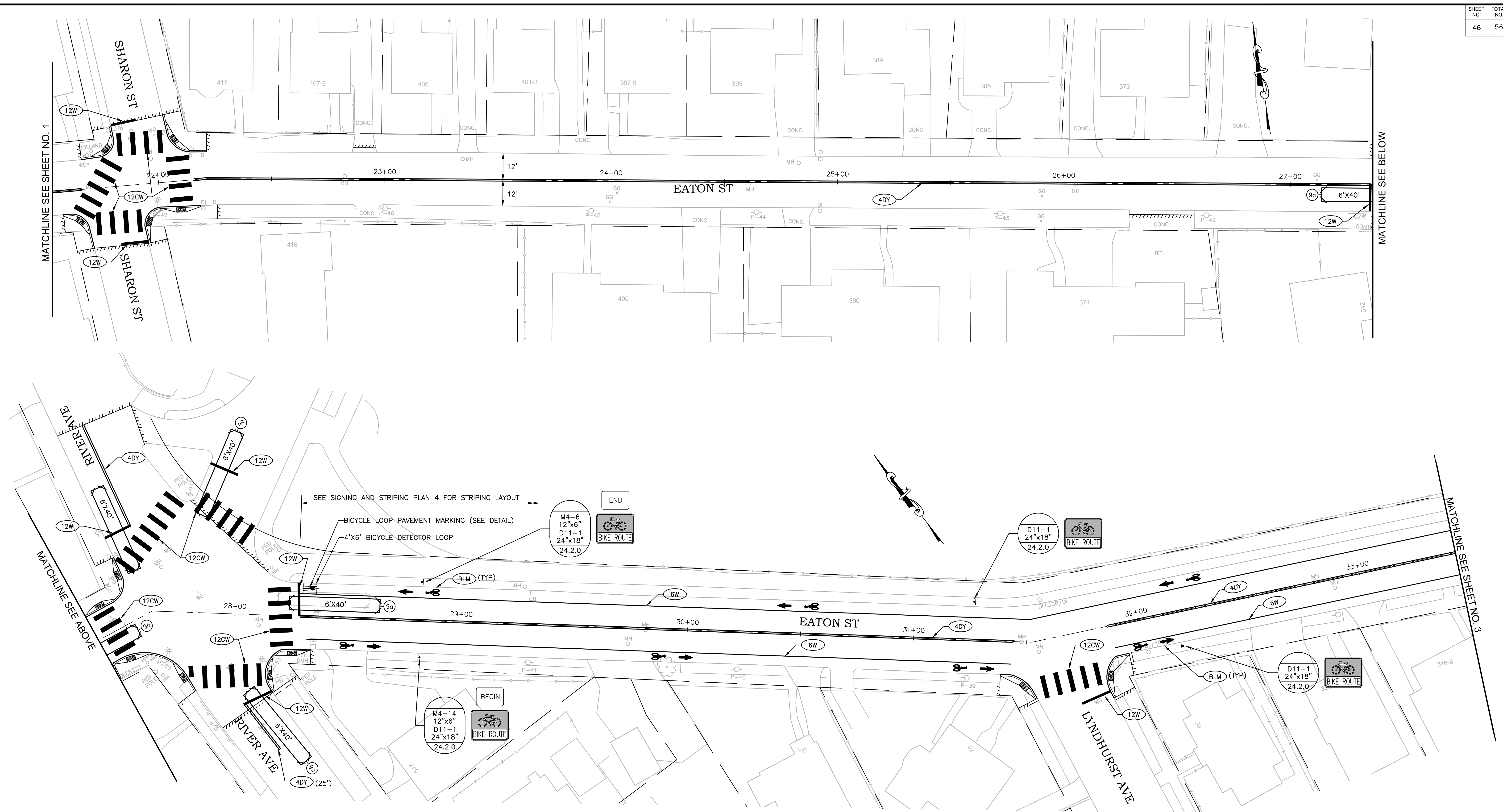
CITY OF PROVIDENCE

PROVIDENCE 2018  
CAPITAL IMPROVEMENT PLAN  
ROAD PAVING CONTRACT 1

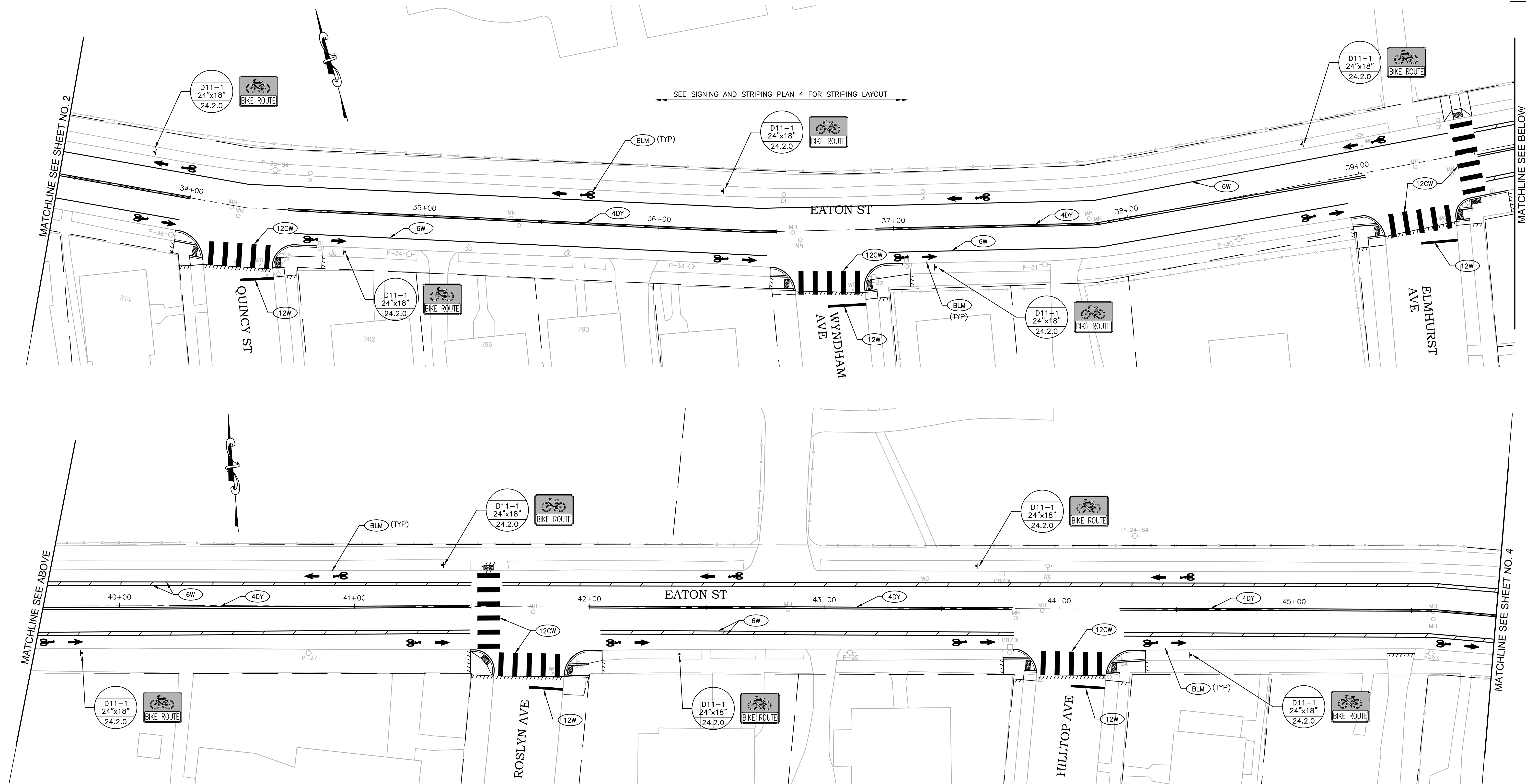
PROVIDENCE RHODE ISLAND

EATON STREET  
SIGNING & STRIPING PLAN 2

DWN:            CHECKED:            DATE:            SCALE: 1"=20'





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CITY OF PROVIDENCE

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CAPITAL IMPROVEMENT PLAN  
ROAD PAVING CONTRACT 1

EATON STREET  
SIGNING & STRIPING PLAN 3

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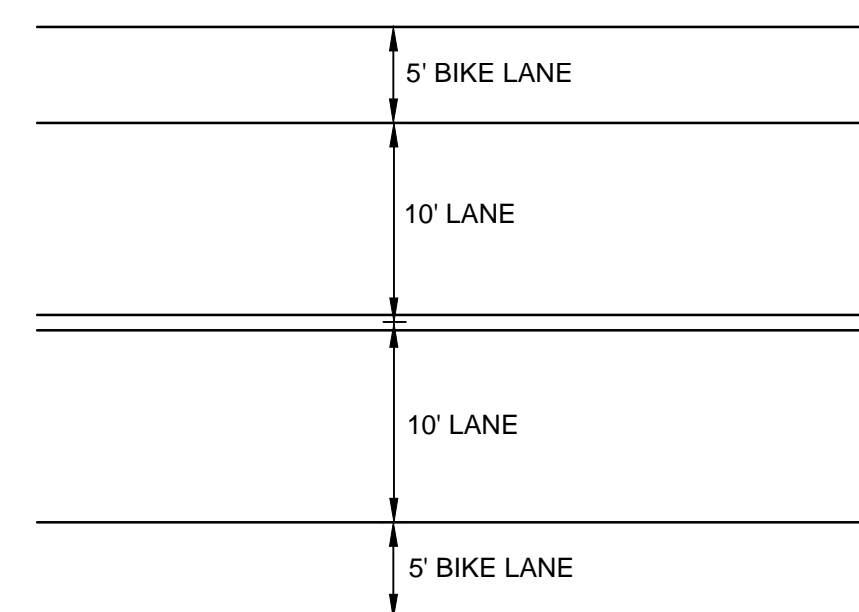
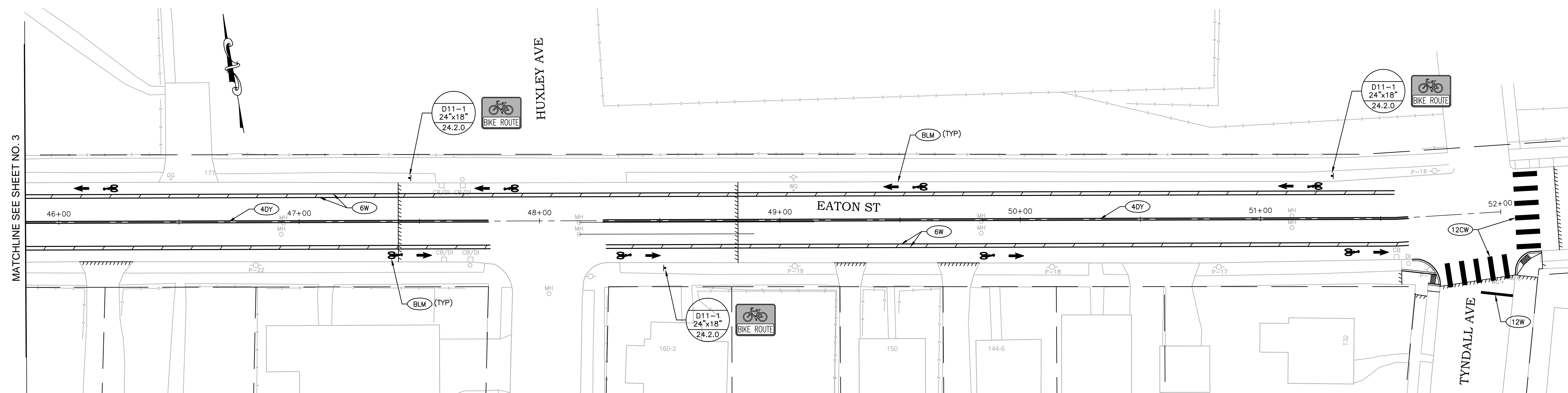
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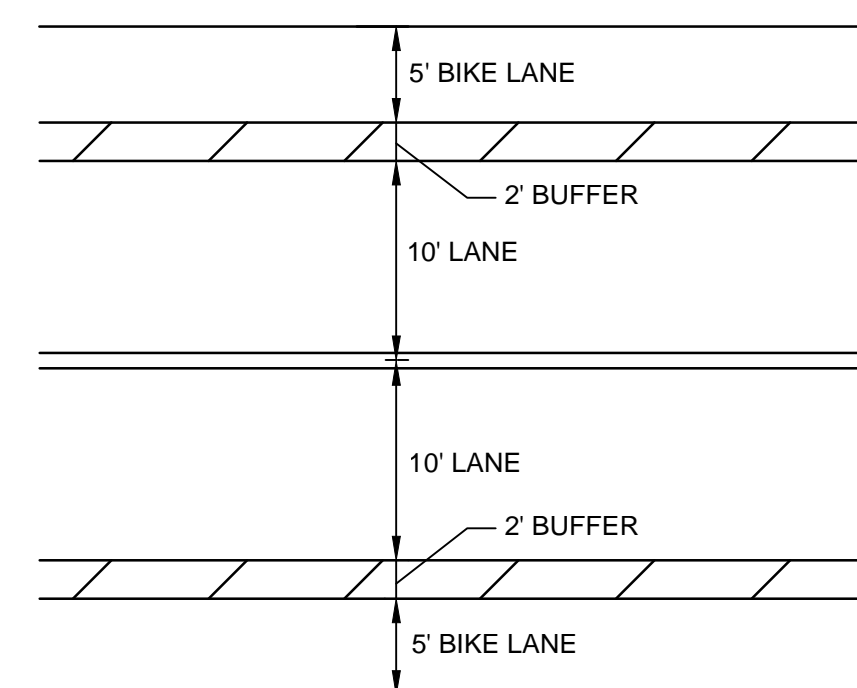
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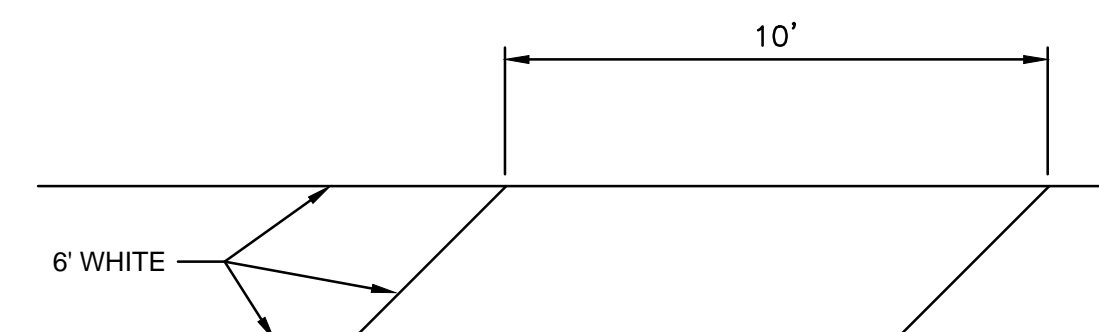
SHEET NO.	TOTAL NO.
48	56



## EATON STREET STRIPING LAYOUT



## EATON STREET STRIPING LAYOUT



### BUFFER STRIPE DETAIL

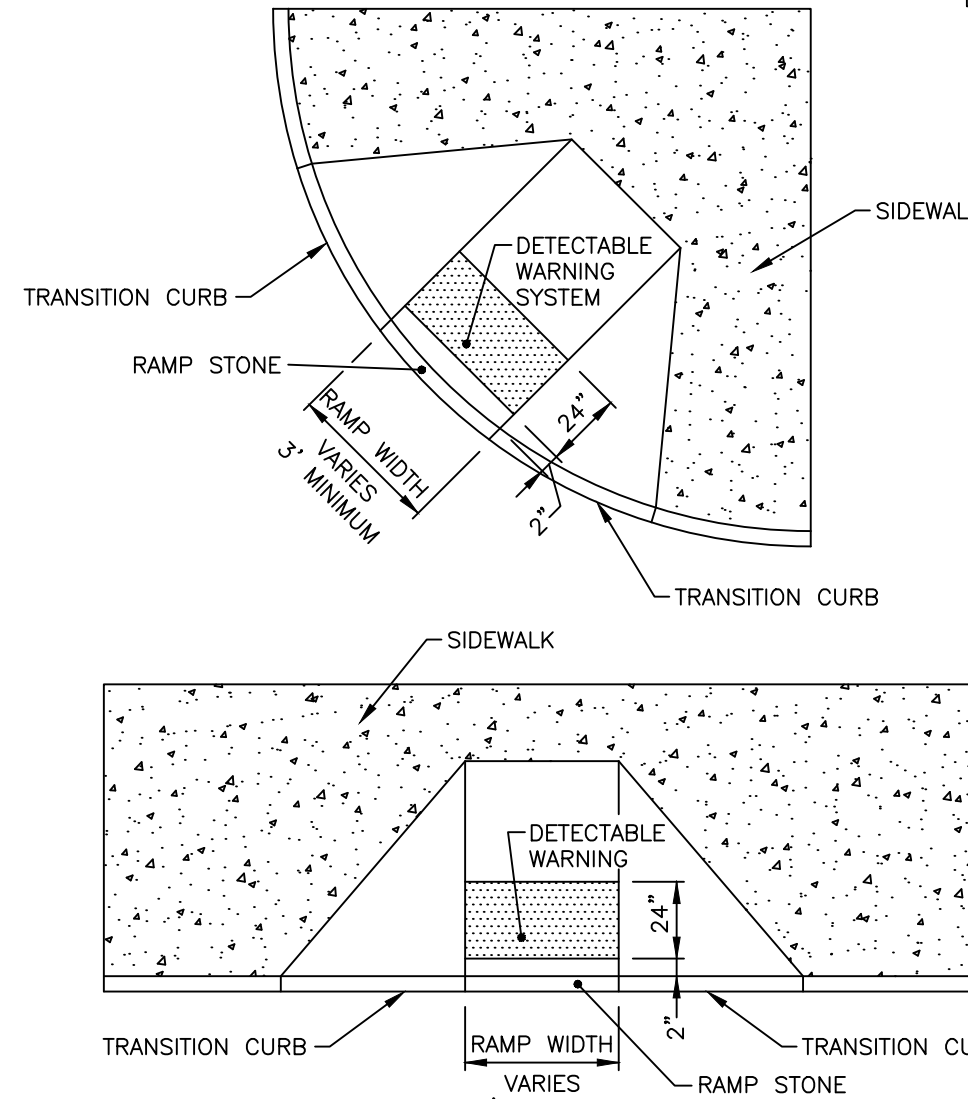
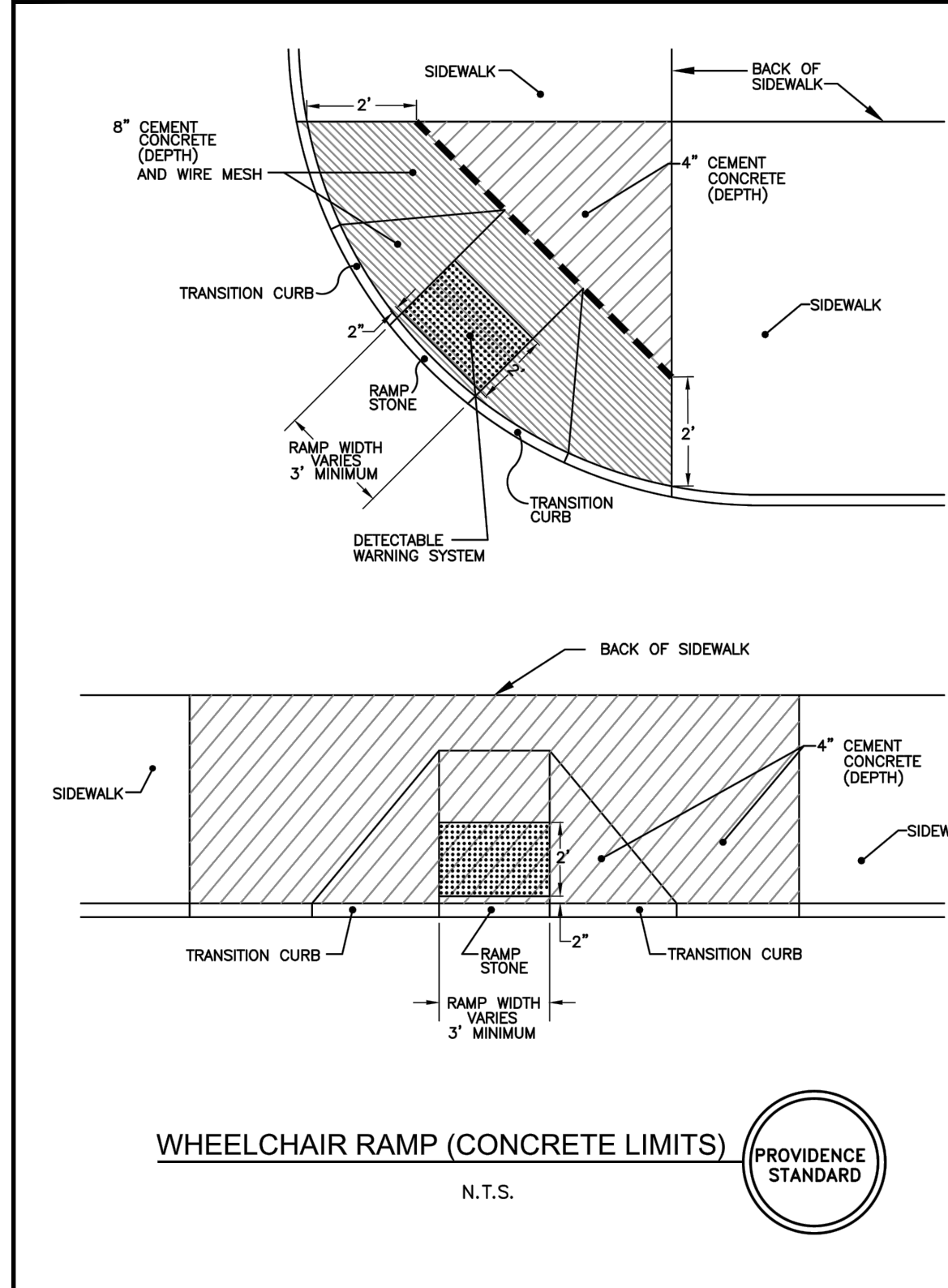
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NOTE

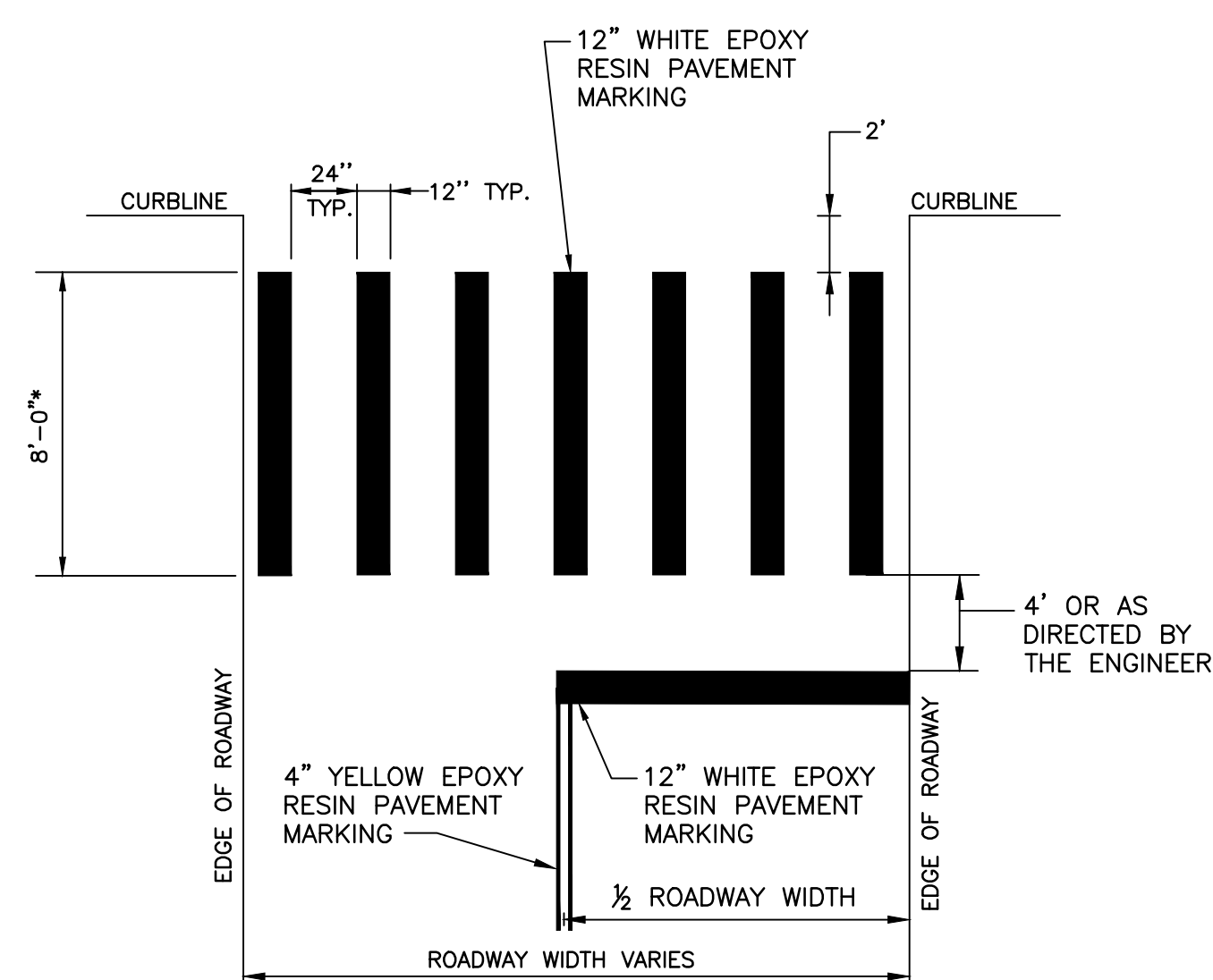
1. DETECTABLE WARNING SYSTEM SHALL BE IN ACCORDANCE WITH RIDOT STANDARD SPECIFICATION 942.0200

DETECTABLE WARNING SYSTEM (CAST IN PLACE)



STRIPING NOTES:

1. TEMPORARY WATERBORNE PAVEMENT MARKINGS SHALL BE PLACED ON FINAL SURFACES FOR ALL STRIPING LOCATIONS AS SHOWN ON THE PLANS.
2. EPOXY RESIN PAVEMENT MARKINGS SHALL BE PLACED AS THE FINAL LAYER OF STRIPING AT ALL STRIPING LOCATIONS AS SHOWN ON THE PLANS.

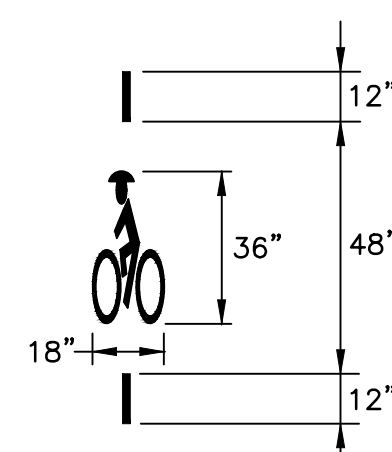


### TYPICAL CROSSWALK AND STOP BAR DETAIL

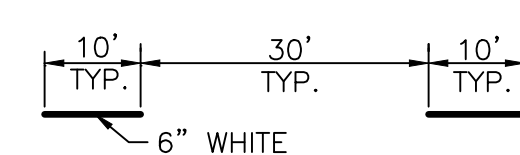
\* CROSSWALK WIDTH AT SIGNALIZED INTERSECTIONS SHALL BE 10' AT ALL APPROACHES.

NOTE:

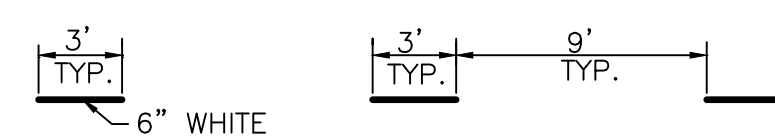
THE CONTRACTOR SHALL RECORD THE LOCATION OF EXISTING STOP BARS, CENTERLINES, CROSSWALKS AND SHOULDER LINES PRIOR TO ANY PAVEMENT REMOVAL SO THAT HE CAN REPLACE STRIPING IN THE SAME LOCATION.



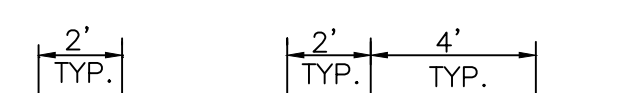
## BIKE LOOP DETECTOR PAVEMENT MARKINGS



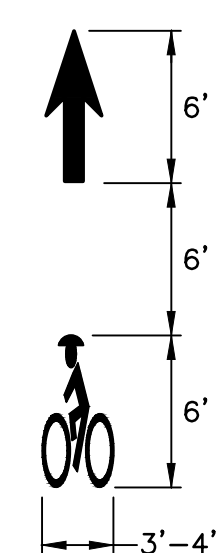
TYPICAL DASHED PAVEMENT MARKING  
N.T.S.



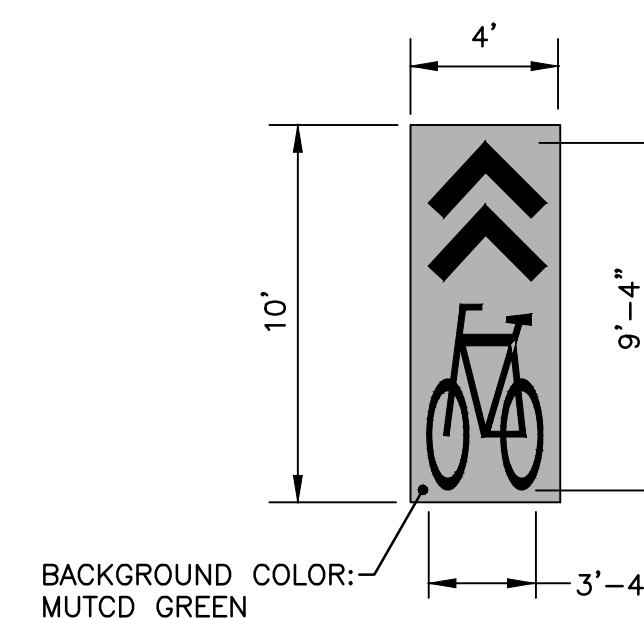
TYPICAL DOTTED PAVEMENT MARKING (DOT)  
(LANE LINE EXTENSION)  
N.I.S.



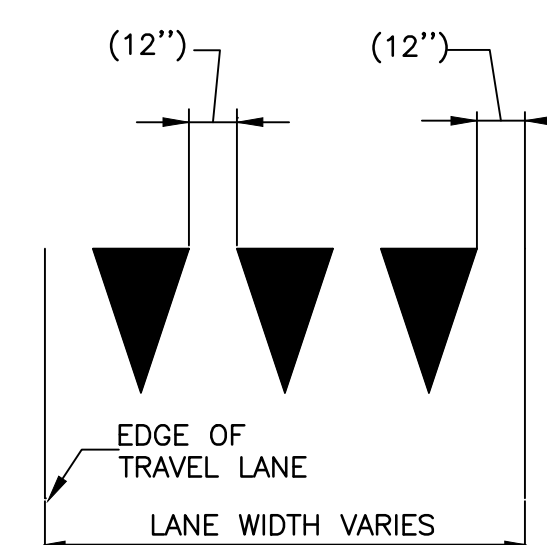
TYPICAL DOTTED PAVEMENT MARKING (DOT2)  
(THROUGH INTERSECTION)  
N.T.S.



BIKE LANE  
PAVEMENT MARKINGS  
N.T.S.



SHARED LANE  
PAVEMENT MARKINGS  
"SUPER SHARROW"  

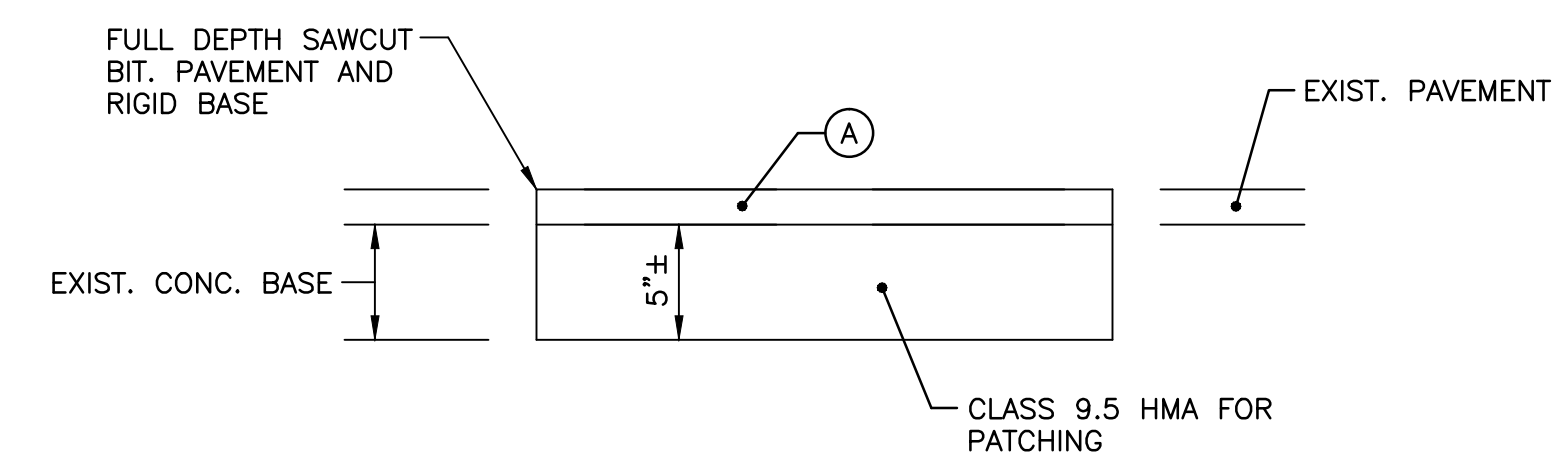



NOTE:  
TRIANGLE LENGTH IS EQUAL TO  
1.5 TIMES THE BASE DIMENSION

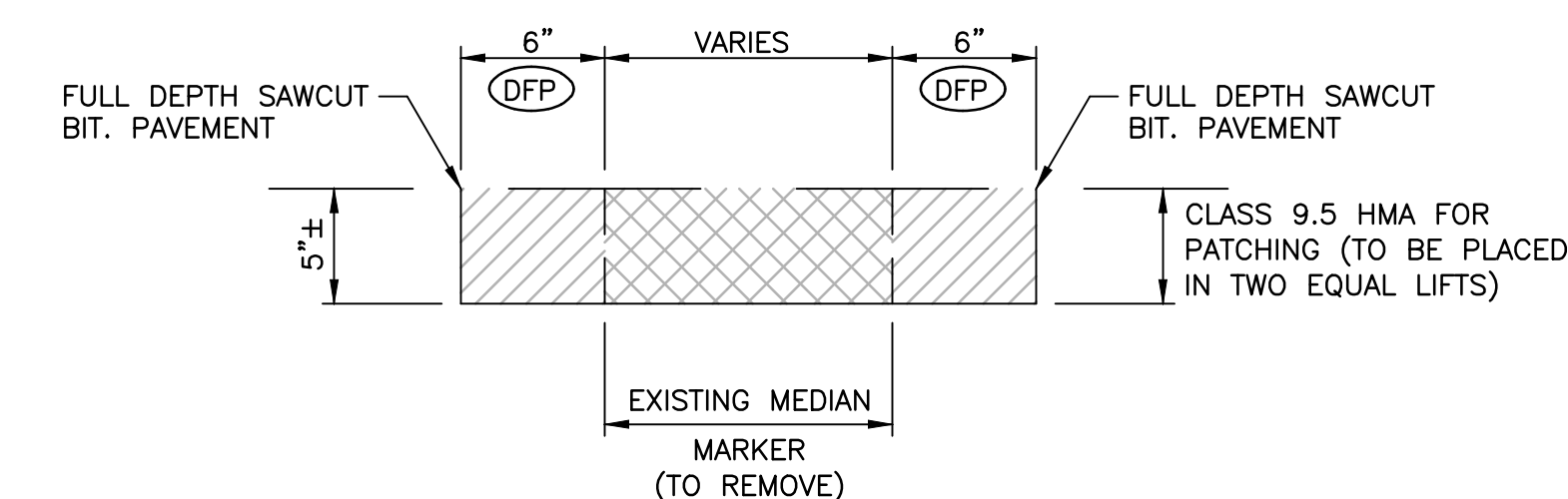


DIRECTION OF TRAVEL

## YIELD LINE LAYOUT FOR STREETS AND HIGHWAYS



FULL DEPTH  
PAVEMENT REPAIR  
NOT TO SCALE



REMOVE AND DISPOSE (DMM)  
MEDIAN MARKER  
NOT TO SCALE

[illegible]

CITY OF PROVIDENCE

# PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1

MISCELLANEOUS DETAILS - 1

DWN:	CHECKED:	DATE:	SCALE: <sup>AS</sup> <sub>SHOWN</sub>
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**Gordon R. Archibald, Inc.**  
Civil and Environmental Engineers  
Pawtucket, Rhode Island



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

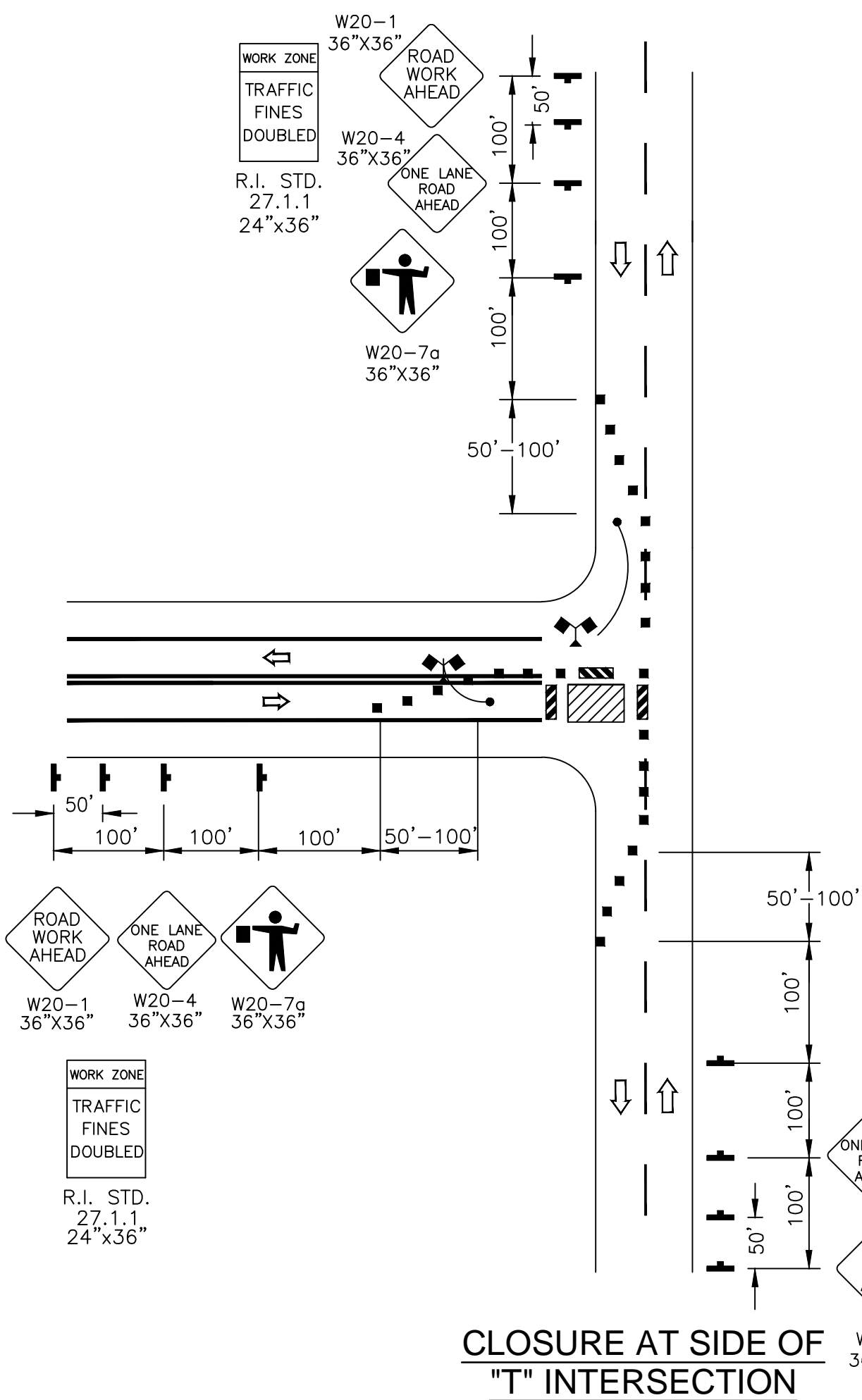






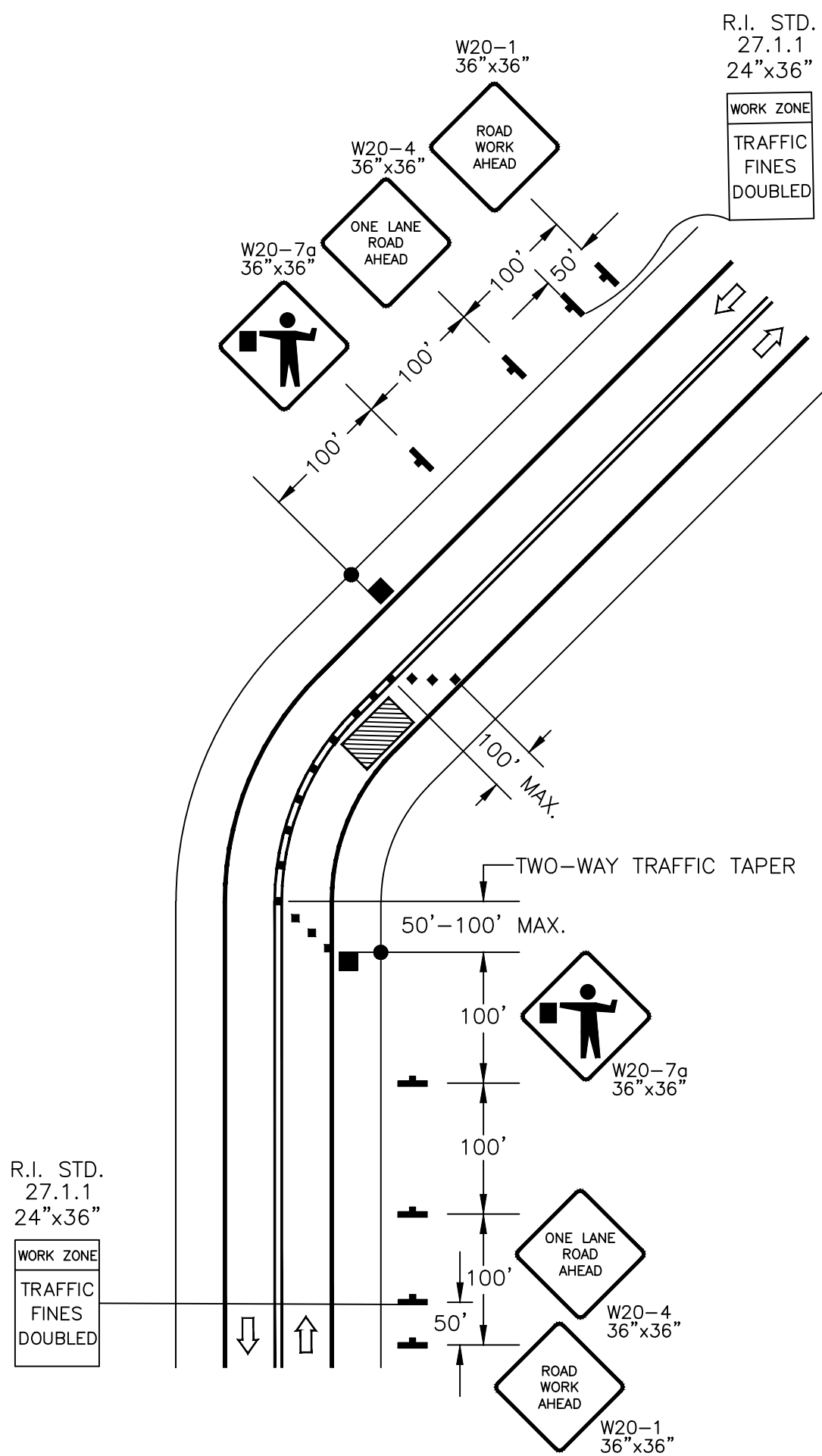






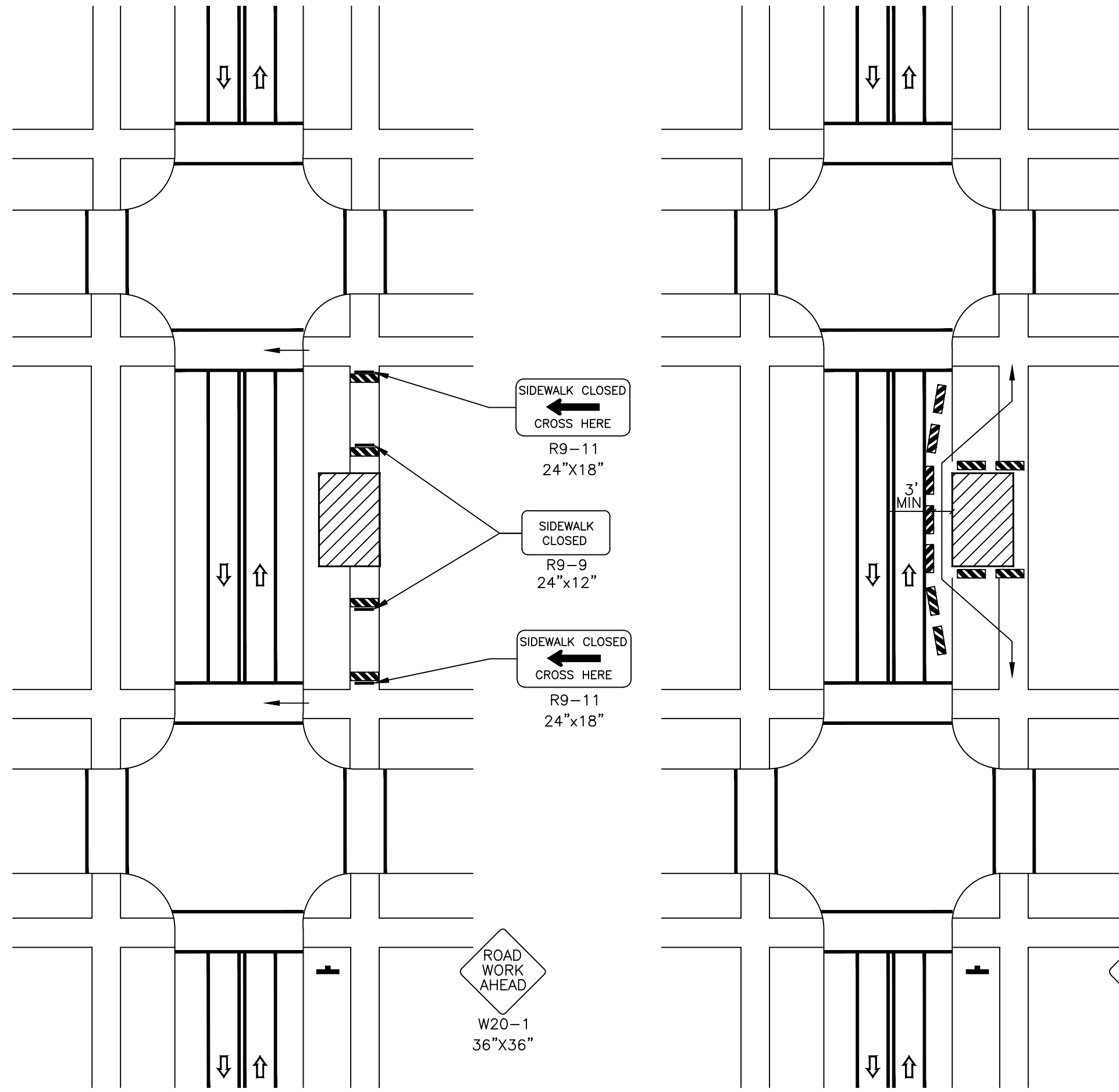
NOTES:

1. THE SITUATION DEPICTED CAN BE SIMPLIFIED BY CLOSING ONE OR MORE OF THE INTERSECTION APPROACHES. IF THIS CANNOT BE DONE, AND/OR WHEN CAPACITY IS A PROBLEM, THROUGH VEHICULAR TRAFFIC SHOULD BE DIRECTED TO OTHER ROADS OR STREETS.
2. ONE LANE ROAD AHEAD SIGNS MAY ALSO BE USED TO PROVIDE ADEQUATE ADVANCE WARNING.
3. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.
4. A BE PREPARED TO STOP SIGN MAY BE ADDED TO THE SIGN SERIES.
5. WHEN USED, THE BE PREPARED TO STOP SIGN SHOULD BE LOCATED BEFORE THE FLAGGER SYMBOL SIGN.
6. TURNS CAN BE PROHIBITED AS REQUIRED BY VEHICULAR TRAFFIC CONDITIONS. UNLESS THE STREETS ARE WIDE, IT MIGHT BE PHYSICALLY IMPOSSIBLE TO MAKE CERTAIN TURNS, ESPECIALLY FOR LARGE VEHICLES.



1. FOR LOW-VOLUME APPLICATIONS, WITH SHORT WORK ZONES ON STRAIGHT ROADWAYS WHERE THE FLAGGER IS VISIBLE TO ROAD USERS FROM BOTH DIRECTIONS, A SINGLE FLAGGER, POSITIONED TO BE VISIBLE TO ROAD USERS APPROACHING FROM BOTH DIRECTIONS MAY BE USED.
2. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
3. THE BUFFER SPACE SHOULD BE EXTENDED IF NECESSARY SO THAT THE 100' MAX. TWO-WAY TRAFFIC TAPER IS PLACED BEFORE A HORIZONTAL (OR CREST VERTICAL) CURVE TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGER AND A QUEUE OF STOPPED VEHICLES.
4. THE BUFFER SPACES SHOULD BE EXTENDED IF NECESSARY SO THAT THE 100' MAX. TWO-WAY TRAFFIC TAPERS ARE PLACED BEFORE HORIZONTAL (OR CREST VERTICAL) CURVES TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND QUEUES OF STOPPED VEHICLES.
5. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN THE 100' MAX. TWO-WAY TRAFFIC TAPERS IS 25 FEET. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
6. MINIMUM LANE WIDTH IS TO BE 10 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF CHANNELIZATION DEVICES OR TEMPORARY BARRIER.

LANE CLOSURE ON TWO LANE ROAD USING FLAGGERS

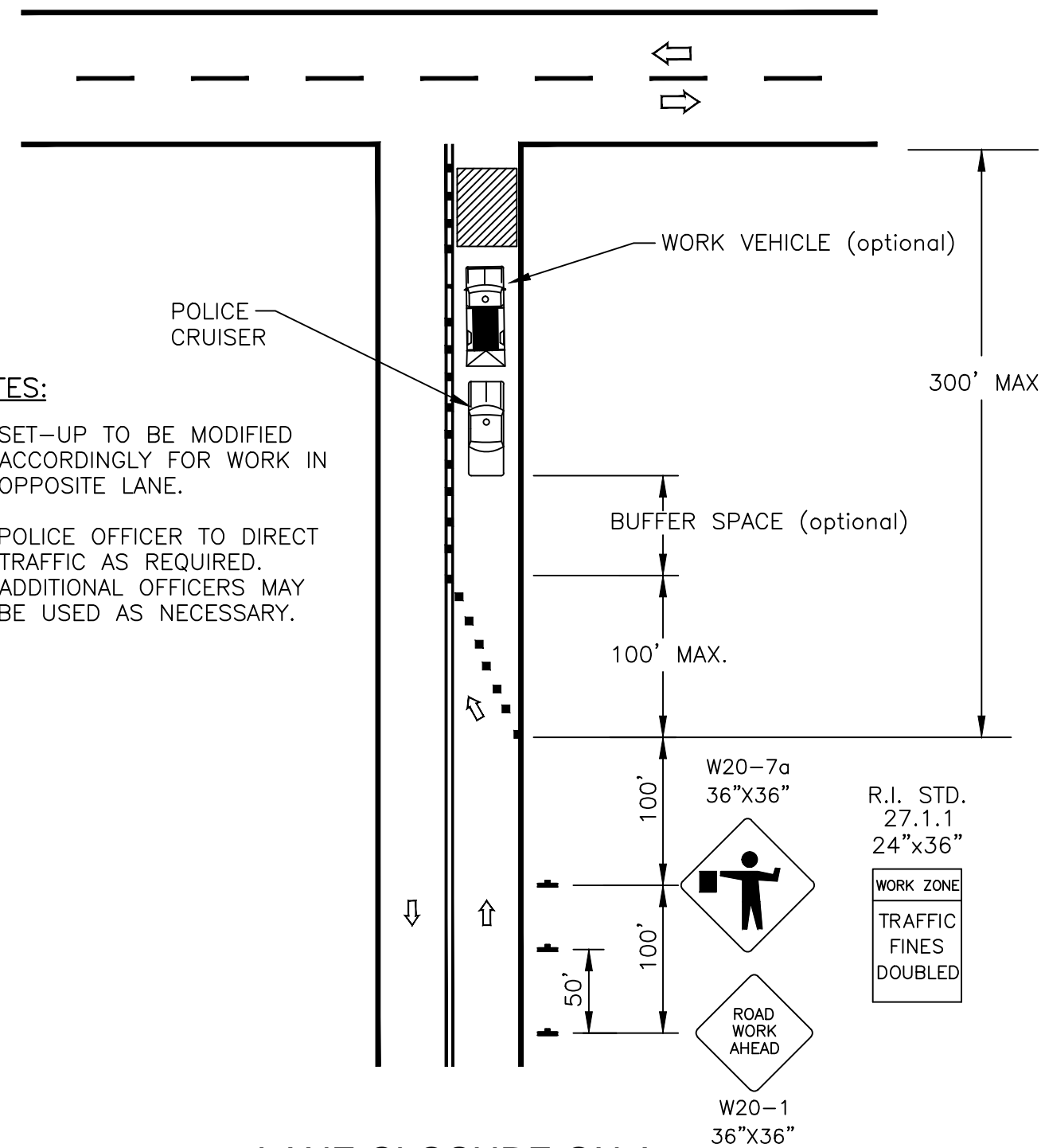


SIDEWALK DETOUR

SIDEWALK DIVERSION

NOTES:

1. WHEN CROSSWALKS OR OTHER PEDESTRIAN FACILITIES ARE CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY.
2. WHERE HIGH SPEEDS ARE ANTICIPATED, A TEMPORARY TRAFFIC BARRIER AND, IF NECESSARY, A CRASH CUSHION SHOULD BE USED TO SEPARATE THE TEMPORARY SIDEWALKS FROM VEHICULAR TRAFFIC.
3. AUDIBLE INFORMATION DEVICES SHOULD BE CONSIDERED WHERE MID BLOCK CLOSINGS AND CHANGED CROSSWALK AREAS CAUSE INADEQUATE COMMUNICATION TO BE PROVIDED TO PEDESTRIANS WHO HAVE VISUAL DISABILITIES.
4. ONLY THE TTC DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS, SHALL BE USED TO CONTROL VEHICULAR TRAFFIC.
5. FOR NIGHTTIME CLOSURES, TYPE A FLASHING WARNING LIGHTS MAY BE USED ON BARRICADES THAT SUPPORT SIGNS AND CLOSE SIDEWALKS.
6. SIGNS, SUCH AS KEEP RIGHT(LEFT), MAY BE PLACED ALONG A TEMPORARY SIDEWALK TO GUIDE OR DIRECT PEDESTRIANS.



LANE CLOSURE ON A SIDE STREET

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL SET-UPS AND DEVICES AND THEIR INSTALLATION, MAINTENANCE, AND REMOVAL SHALL CONFORM TO THE LATEST EDITION OF "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) WITH ALL REVISIONS, AND THE LATEST EDITION OF THE "RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WITH ALL REVISIONS.
2. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TEMPORARY TRAFFIC CONTROL DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.
4. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
5. WHERE A SIDE STREET OR RAMP INTERSECTS THE WORK ZONE, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH PART 6 OF THE MUTCD.
6. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A RHODE ISLAND STANDARD 26.2.0 BARRICADE WITH APPROPRIATE MARKINGS AT EACH LOCATION WHERE ADJUSTMENT TO UTILITY STRUCTURES HAVE BEEN MADE UNTIL RESURFACING WORK HAS BEEN PERFORMED. OTHER TYPES OF PROTECTIVE DEVICES MAY BE USED IF APPROVED BY THE ENGINEER.
7. R.I. STD. 26.1.0 CONES SHALL BE USED WHEN TRAFFIC CONTROL SET-UP IS UTILIZED ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY REMOVED AT THE END OF THE WORKDAY. R.I. STD. 26.2.0 SHALL BE USED WHEN A TRAFFIC CONTROL SET-UP WILL REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT..
8. THE SIZES OF ALL DIAMOND SHAPED ADVANCE WARNING SIGNS SHALL BE 36"x36", UNLESS OTHERWISE NOTED.
9. MAXIMUM SPACING OF THE CHANNELIZATION DEVICES IN A TAPER IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH. MAXIMUM SPACING OF CHANNELIZATION DEVICES IN A TANGENT SECTION IS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT IN MPH.
10. IF THE WORK SPACE EXTENDS ACROSS A CROSSWALK, THE CROSSWALK SHOULD BE CLOSED USING THE INFORMATION AND DEVICES SHOWN IN SIDEWALK DETOUR.

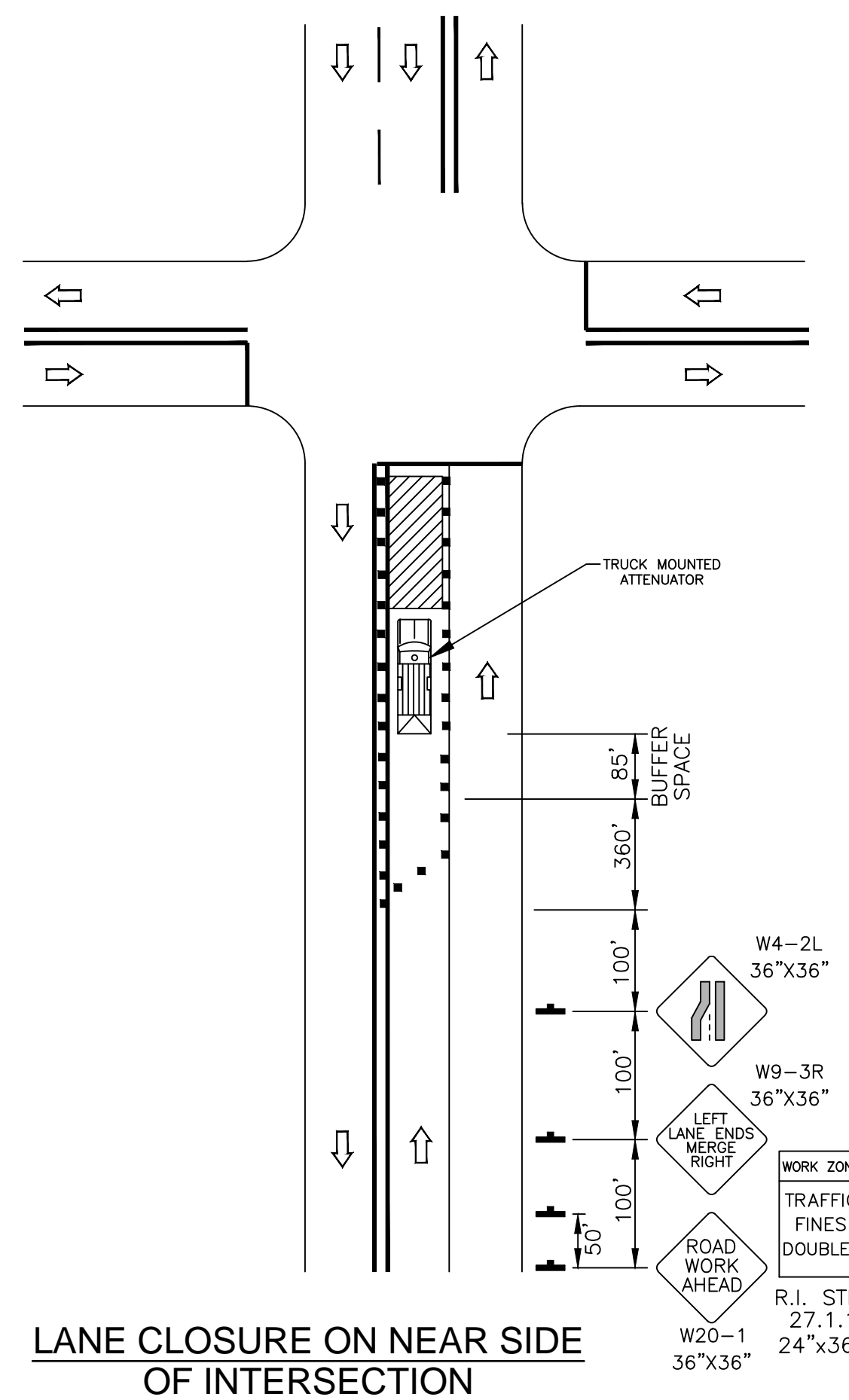
LEGEND

- CHANNELIZING DEVICE
- TRAFFIC CONE (R.I. STD. 26.1.0)
- DRUM BARRICADE (R.I. STD. 26.2.0)
- SIGN ON PORTABLE SIGN SUPPORT
- TYPE III BARRICADE
- FLASHING ARROW BOARD
- TRAFFIC PERSON
- WORK SPACE
- DIRECTION OF TRAVEL
- WORK VEHICLE
- ARROW PANEL

CONE SPACING	
TAPER	TANGENT
25'	50'

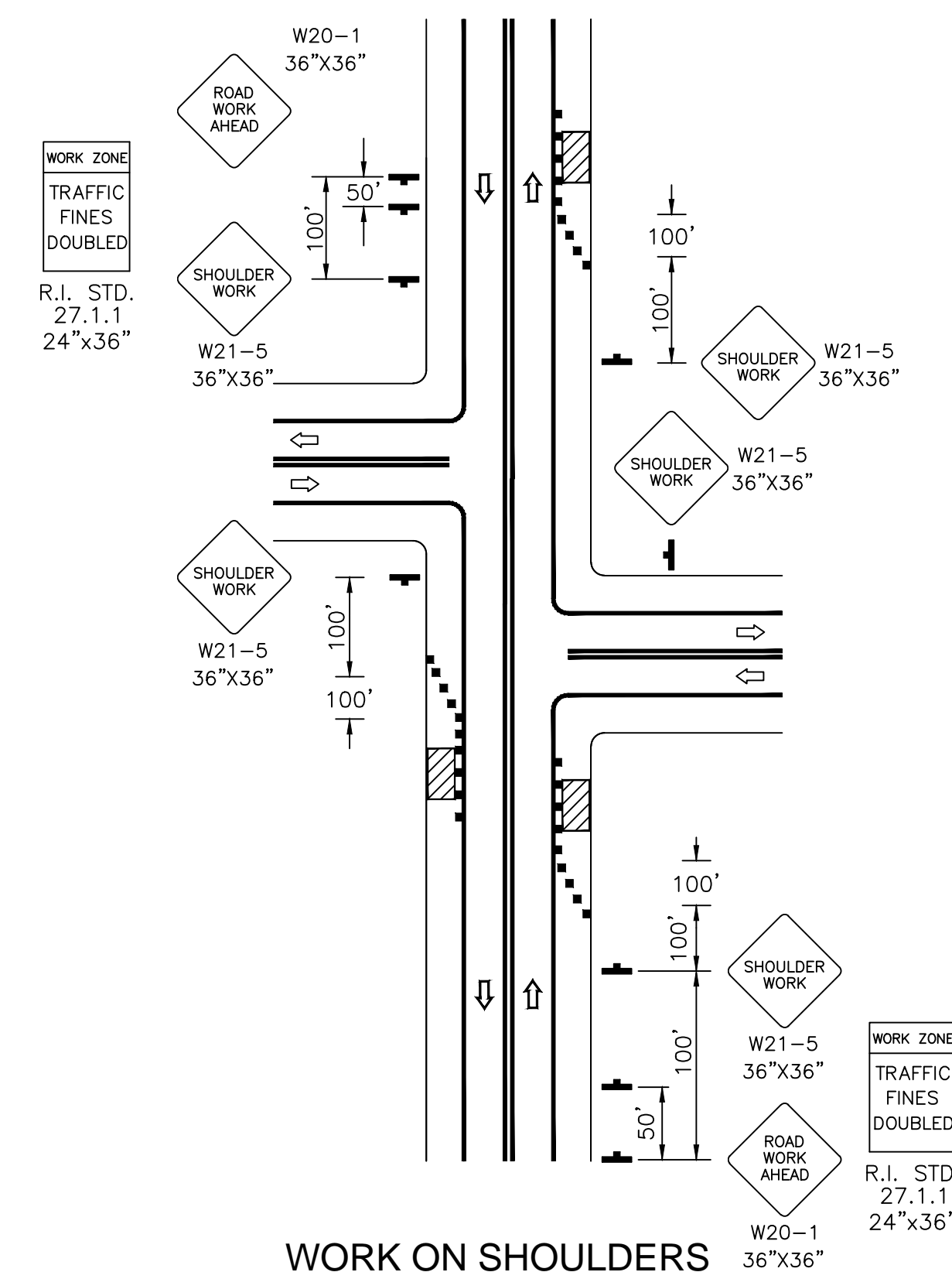
REVISIONS			CITY OF PROVIDENCE	
NO.	DATE	BY		
			PROVIDENCE 2018 CAPITAL IMPROVEMENT PLAN ROAD PAVING CONTRACT 1 PROVIDENCE RHODE ISLAND	
			MAINTENANCE AND PROTECTION OF TRAFFIC DETAILS - 1	
			DWN:	CHECKED: DATE: SCALE: N.T.S.





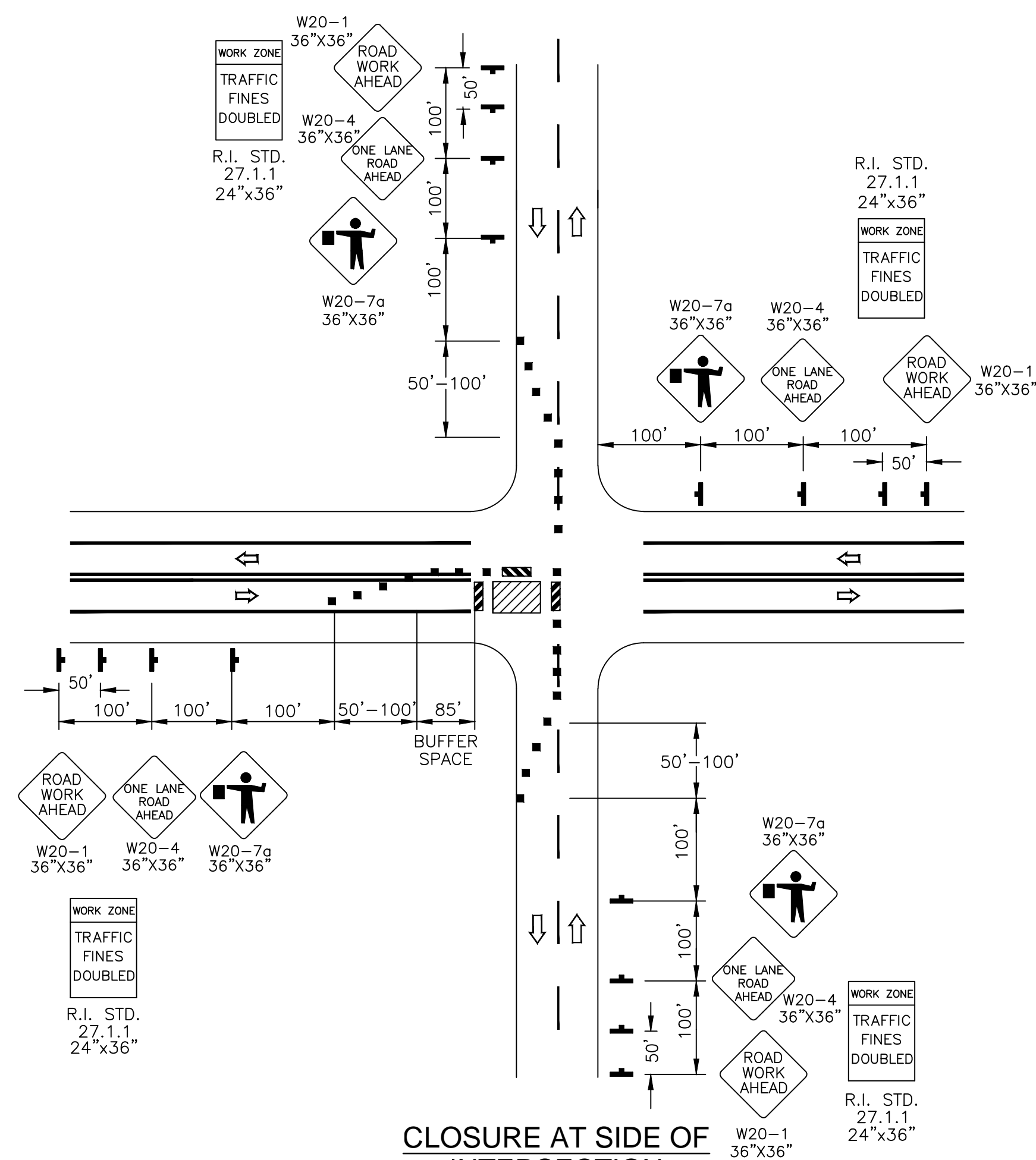
### LANE CLOSURE ON NEAR SIDE OF INTERSECTION

- NOTES:
1. THE MERGING TAPER SHALL DIRECT VEHICULAR TRAFFIC INTO EITHER THE RIGHT OR LEFT LANE, BUT NOT BOTH.
  2. IN THIS TYPICAL APPLICATION, A LEFT TAPER SHOULD BE USED SO THAT RIGHT-TURN MOVEMENTS WILL NOT IMPEDE THROUGH MOTOR VEHICLE TRAFFIC. HOWEVER, THE REVERSE SHOULD BE TRUE FOR LEFT-TURN MOVEMENTS.
  3. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.
  4. A WORK VEHICLE WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS MAY BE USED WITH THE HIGH-LEVEL WARNING DEVICE.
  5. SHADOW VEHICLES WITH A TRUCK-MOUNTED ATTENUATOR SHALL BE USED WHEN DIRECTED BY THE ENGINEER.



## WORK ON SHOULDERS

1. A SHOULDER WORK SIGN SHOULD BE PLACED ON THE LEFT SIDE OF THE ROADWAY FOR A DIVIDED OR ONE-WAY STREET ONLY IF THE LEFT SHOULDER IS AFFECTED.
2. THE SHOULDER WORK AHEAD SIGN ON AN INTERSECTING ROADWAY MAY BE OMITTED WHERE DRIVERS EMERGING FROM THE ROADWAY WILL ENCOUNTER ANOTHER ADVANCE WARNING SIGN PRIOR TO THIS ACTIVITY AREA.
3. FOR SHORT-DURATION OPERATIONS OF 60 MINUTES OR LESS, ALL SIGNS AND CHANNELIZING DEVICES MAY BE ELIMINATED IF ROADWAY WITH ACTIVATED HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS IS USED.
4. VEHICLE HAZARD WARNING SIGNALS MAY BE USED TO SUPPLEMENT HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.
5. VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF VEHICLE'S HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.
6. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8 ft. OR MORE ARE CLOSED, AT LEAST ONE ADVANCE WARNING SIGN SHALL BE USED. IN ADDITION, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND DIRECT VEHICULAR TRAFFIC TO REMAIN WITHIN THE TRAVELED WAY.



### CLOSURE AT SIDE OF INTERSECTION

- NOTES:
1. THE SITUATION DEPICTED CAN BE SIMPLIFIED BY CLOSING ONE OR MORE OF THE INTERSECTION APPROACHES. IF THIS CANNOT BE DONE, AND/OR WHEN CAPACITY IS A PROBLEM, THROUGH VEHICULAR TRAFFIC SHOULD BE DIRECTED TO OTHER ROADS OR STREETS.
  2. ONE LANE ROAD AHEAD SIGNS MAY ALSO BE USED TO PROVIDE ADEQUATE ADVANCE WARNING.
  3. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.
  4. FOR SHORT-DURATION WORK OPERATIONS, THE CHANNELIZING DEVICES MAY BE ELIMINATED IF A VEHICLE DISPLAYING HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS IS POSITIONED IN THE WORK SPACE.
  5. A **BE PREPARED TO STOP** SIGN MAY BE ADDED TO THE SIGN SERIES.
  6. WHEN USED, THE **BE PREPARED TO STOP** SIGN SHOULD BE LOCATED BEFORE THE FLAGGER SYMBOL SIGN.
  7. TURNS CAN BE PROHIBITED AS REQUIRED BY VEHICULAR TRAFFIC CONDITIONS. UNLESS THE STREETS ARE WIDE, IT MIGHT BE PHYSICALLY IMPOSSIBLE TO MAKE CERTAIN TURNS, ESPECIALLY FOR LARGE VEHICLES.
  8. VEHICLE HAZARD WARNING SIGNALS MAY BE USED TO SUPPLEMENT HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.
  9. VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

REVISIONS			CITY OF PROVIDENCE
NO.	DATE	BY	
			<div style="text-align: center;"> <b>PROVIDENCE 2018</b>  <b>CAPITAL IMPROVEMENT PLAN</b>  <b>ROAD PAVING CONTRACT 1</b>  <b>PROVIDENCE</b> </div> <div style="text-align: right;"> <b>RHODE ISLAND</b> </div>
			<div style="text-align: center;"> <b>MAINTENANCE AND PROTECTION</b>  <b>OF TRAFFIC DETAILS - 2</b> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>DWN:</span> <span>CHECKED:</span> <span>DATE:</span> <span>SCALE: N.T.S.</span> </div>