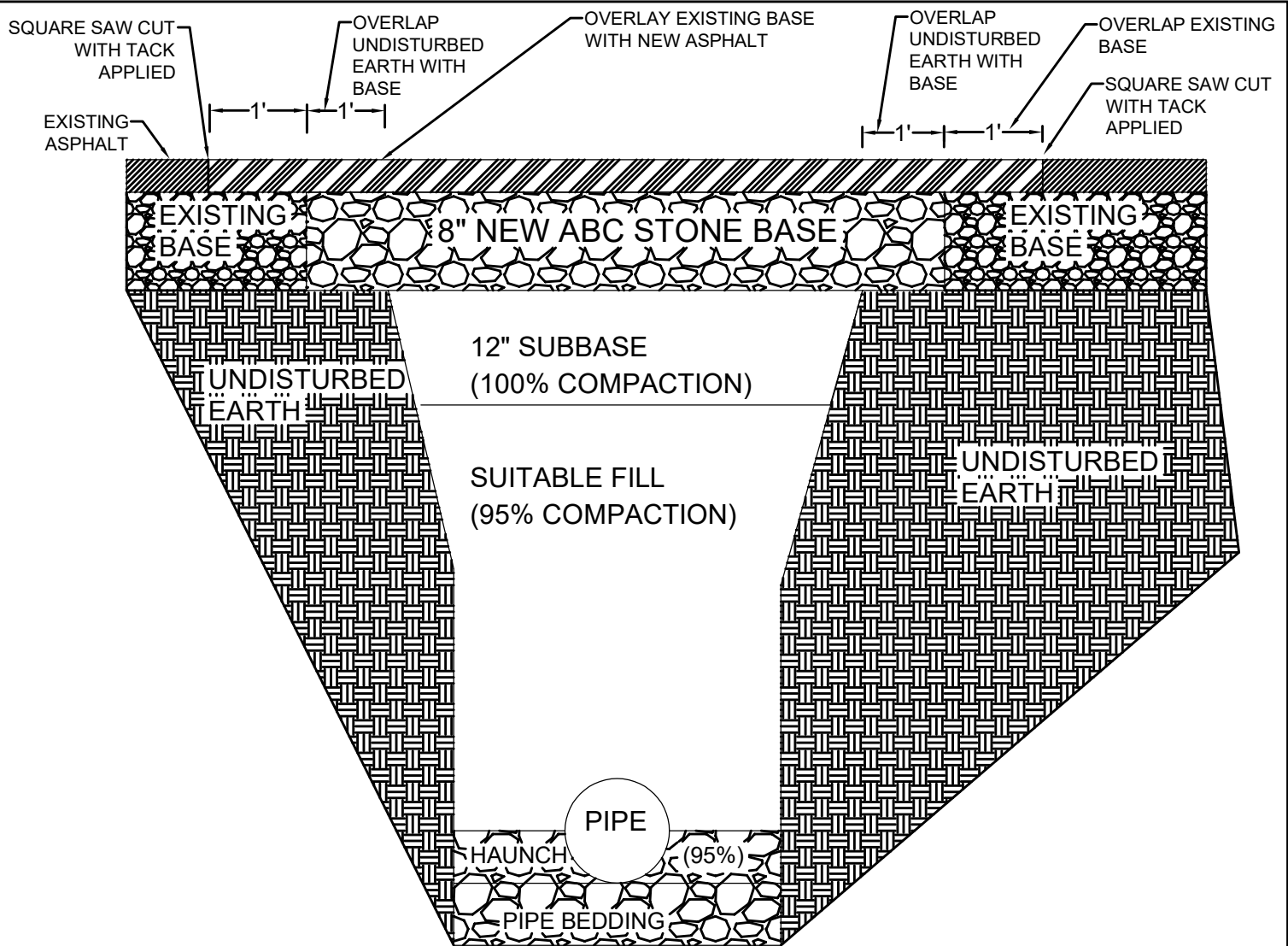




Standard Details

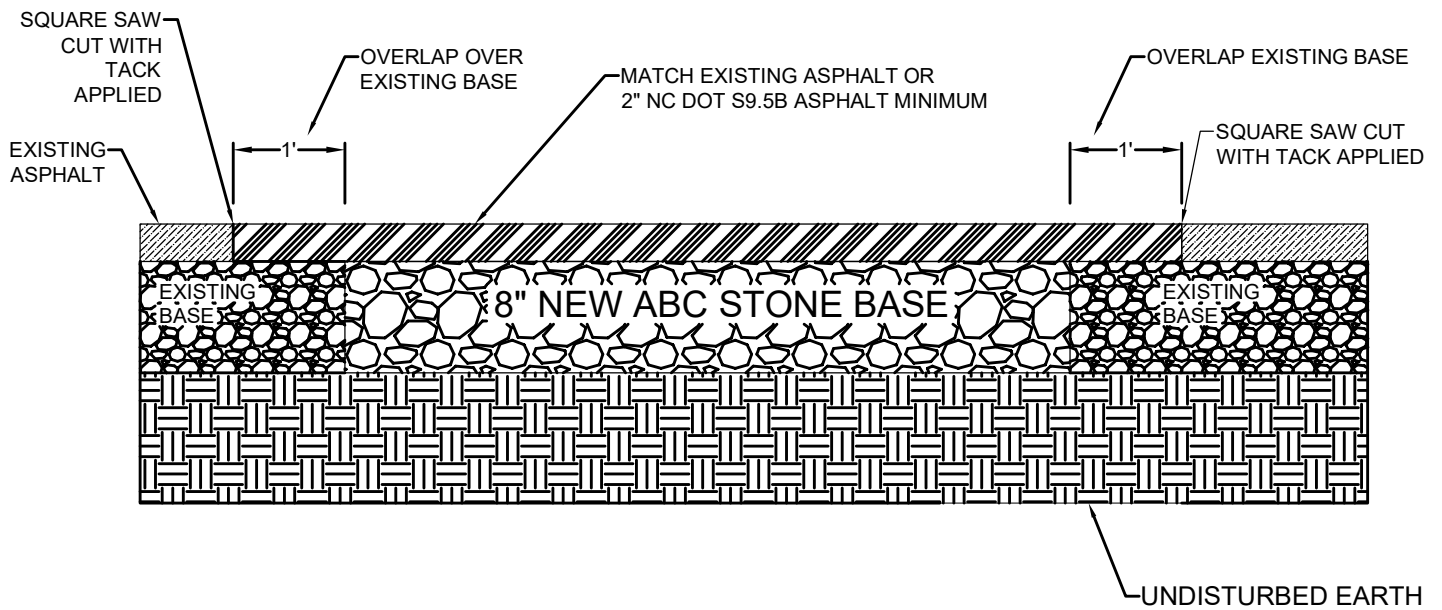
Public Services Department

February 2022




1. ASPHALT THICKNESS SHALL MATCH THE EXISTING ASPHALT THICKNESS OR BE 2" NC DOT S9.5B ASPHALT WHICHEVER IS GREATER.
2. ALL PAVEMENT CUTS SHALL BE REPAIRED WITHIN 3 DAYS FROM THE DATE THAT THE ASPHALT IS CUT FOR THE REPAIR.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING COMPACTION REQUIREMENTS BY A LICENSED GEO-TECHNICAL FIRM.
4. ALL PAVEMENT PATCHES SHALL PROVIDE A UNIFORM AND SMOOTH DRIVING SURFACE.
5. SUITABLE MATERIAL SHALL BE FREE FROM HEAVY CLAYS, GUMBO, DEBRIS, ORGANICS, AND LITTLE TO NO EXCESSIVE MOISTURE.
6. SUITABLE FILL SHALL BE INSTALLED IN 6" - 8" LIFTS COMPACTED BY A MECHANIZED TAMPER.

SECTION: STREETS	PAVEMENT REPAIR UTILITY CUT	PUBLIC SERVICES DEPARTMENT
DATE: 2021		 Town of Leland
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

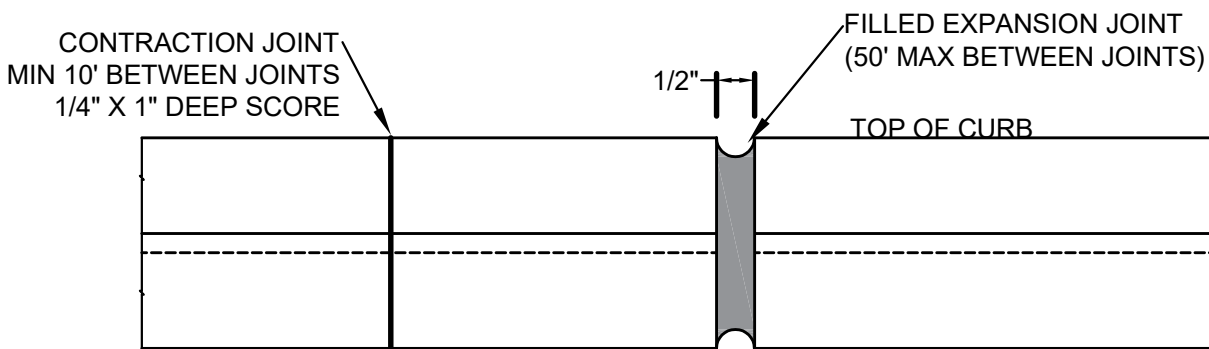
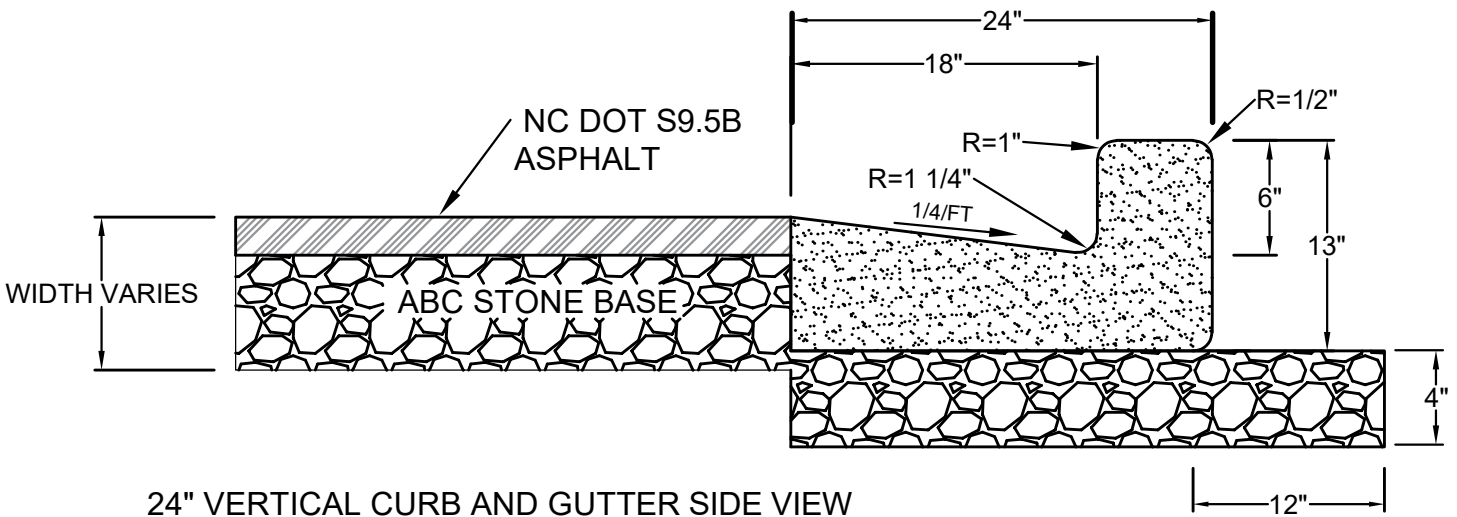
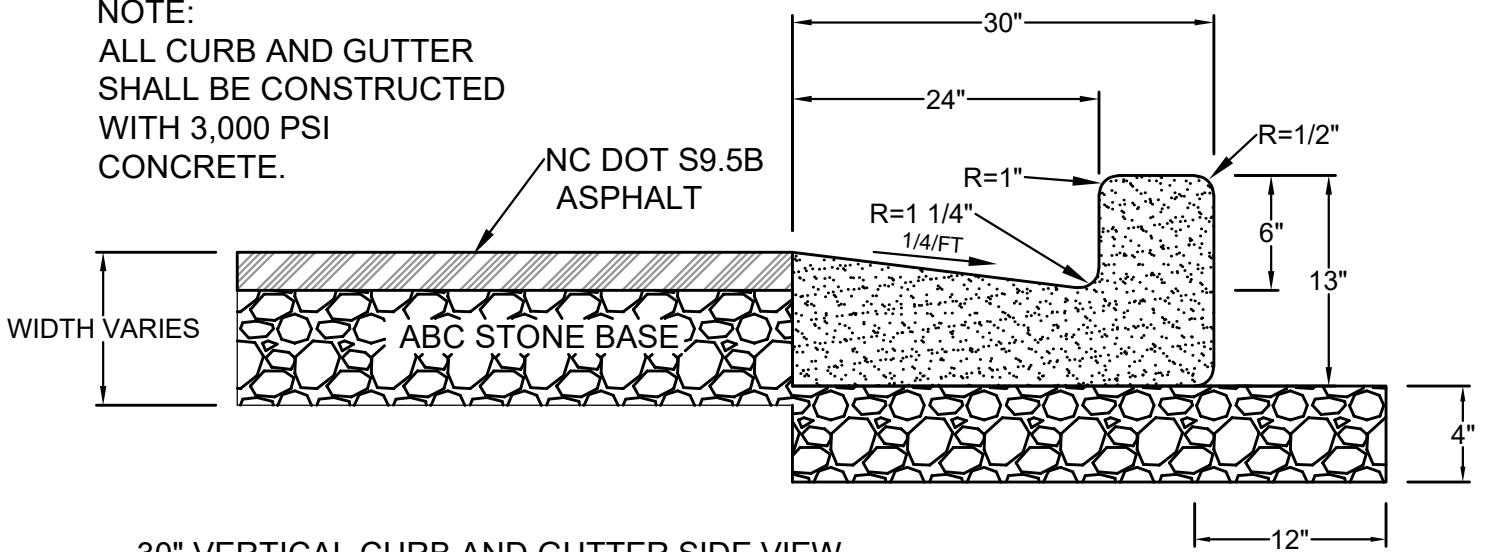


NOTES:

1. ASPHALT THICKNESS SHALL MATCH THE EXISTING ASPHALT THICKNESS OR BE 2" NC DOT S9.5B ASPHALT WHICHEVER IS GREATER.
2. ALL PAVEMENT CUTS SHALL BE REPAIRED WITHIN 3 DAYS FROM THE DATE THAT THE ASPHALT IS CUT FOR THE REPAIR.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING COMPACTION REQUIREMENTS BY A LICENSED GEO-TECHNICAL FIRM.
4. ALL PAVEMENT PATCHES SHALL PROVIDE A UNIFORM AND SMOOTH DRIVING SURFACE.
5. THE CONTRACTOR SHALL REMOVE ANY UNSUITABLE MATERIAL FROM THE PATCH AREA AS DIRECTED BY THE TOWN ENGINEER AND REPLACE WITH A SUITABLE MATERIAL.
6. SUITABLE MATERIAL SHALL BE FREE FROM HEAVY CLAYS, GUMBO, DEBRIS, ORGANICS, AND LITTLE TO NO EXCESSIVE MOISTURE.
7. SUITABLE FILL SHALL BE INSTALLED IN 6" - 8" LIFTS COMPACTED BY A MECHANIZED TAMPER.

SECTION: STREETS	PAVEMENT REPAIR FULL DEPTH PATCH	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. ST - 02
SCALE: NOT TO SCALE		

NOTE:
ALL CURB AND GUTTER
SHALL BE CONSTRUCTED
WITH 3,000 PSI
CONCRETE.



CONTRACTION JOINT AND EXPANSION JOINT FRONT VIEW

SECTION: STREETS
DATE: 2021
DRAWN BY: JWP
CHECKED BY: TOWN PSD
SCALE: NOT TO SCALE

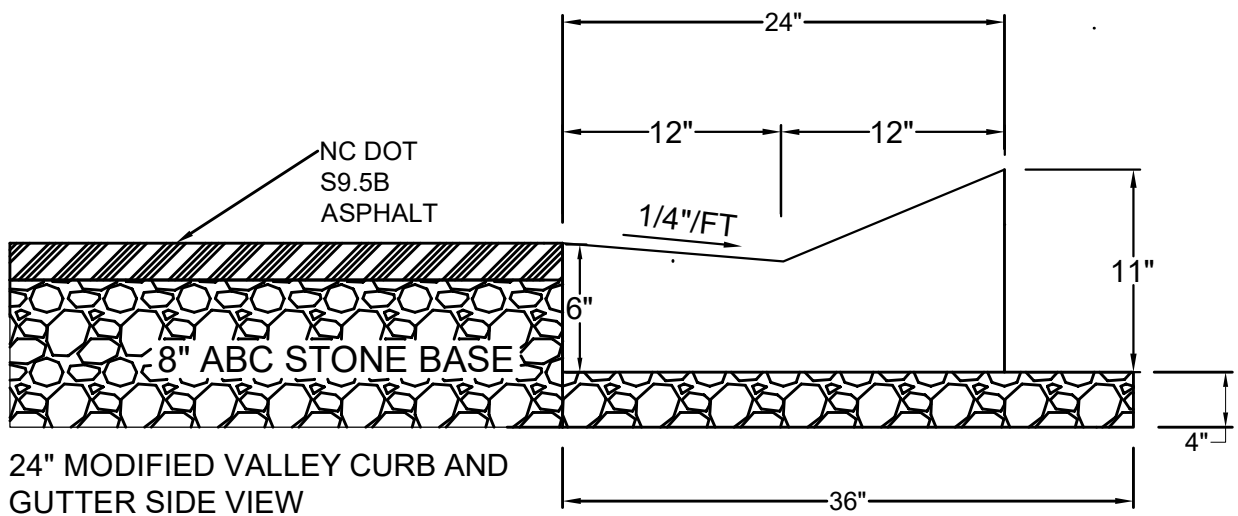
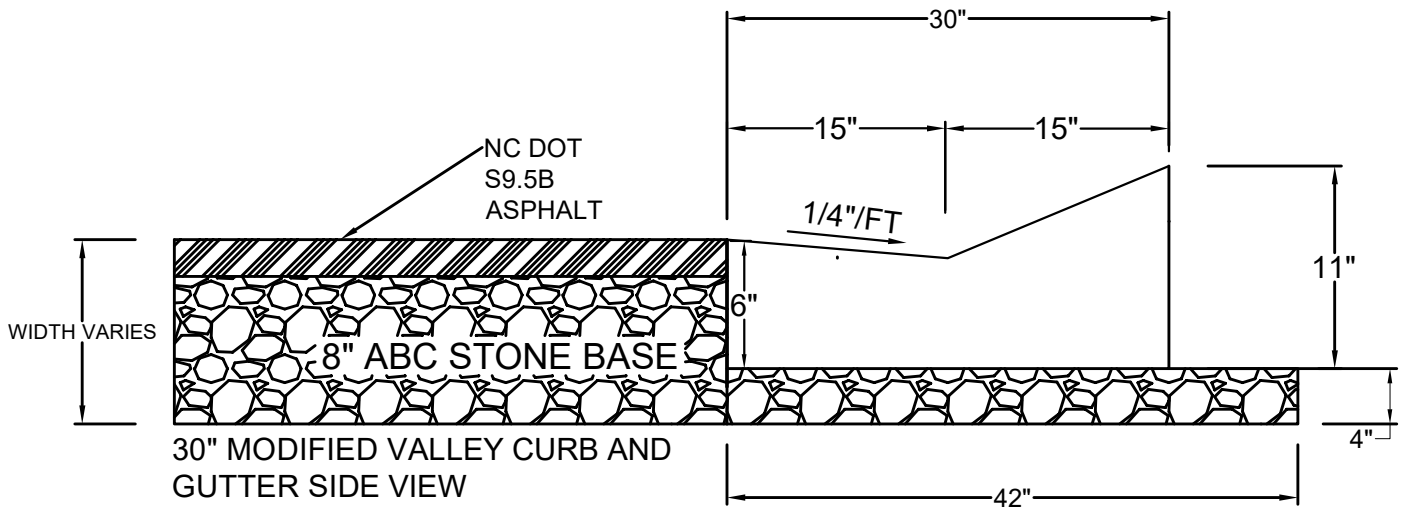
24" AND 30" VERTICAL
CURB AND GUTTER

PUBLIC SERVICES
DEPARTMENT


Leland

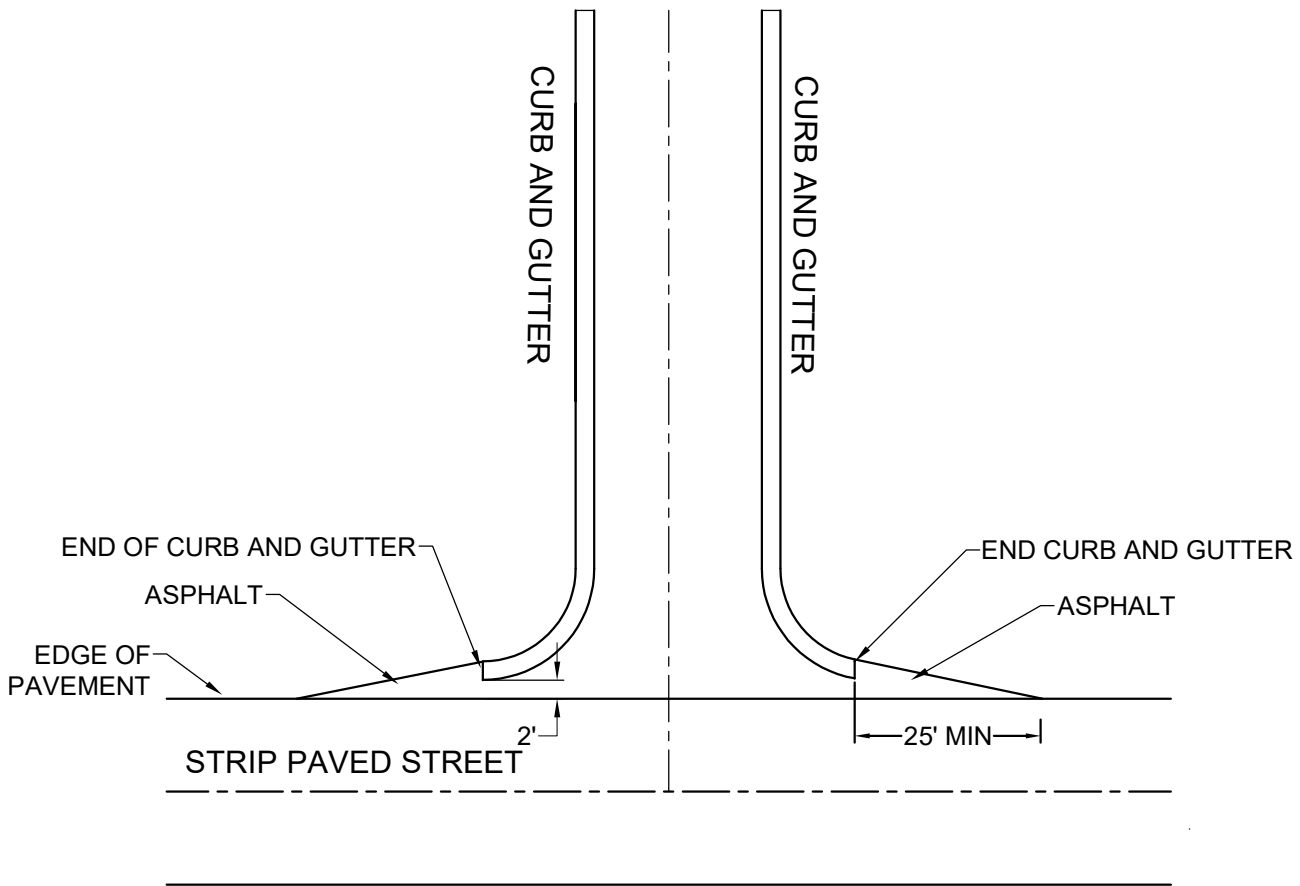
DETAIL NO. ST - 03

NOTE:
 ALL CURB AND GUTTER SHALL BE
 CONSTRUCTED WITH 3,000 PSI CONCRETE.

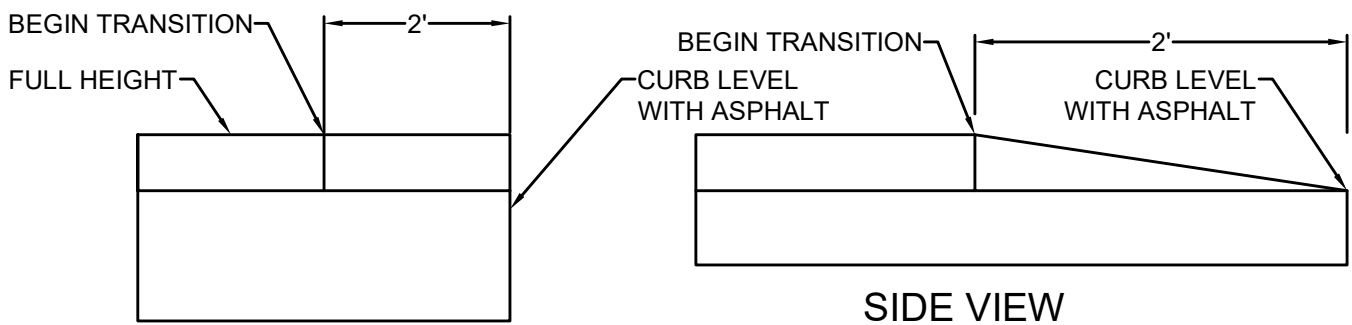


NOTE:
 1. FOR CONTRACTION AND EXPANSION JOINT
 REQUIREMENTS, PLEASE REFERENCE STANDARD
 DETAIL ST - 03.

SECTION: STREETS	24" AND 30" MODIFIED VALLEY (ROLL OVER) CURB AND GUTTER	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



END OF CURB AND GUTTER TRANSITION



PLAN VIEW

SIDE VIEW

SECTION: STREETS

DATE: 2021

DRAWN BY: JWP

CHECKED BY: TOWN PSD

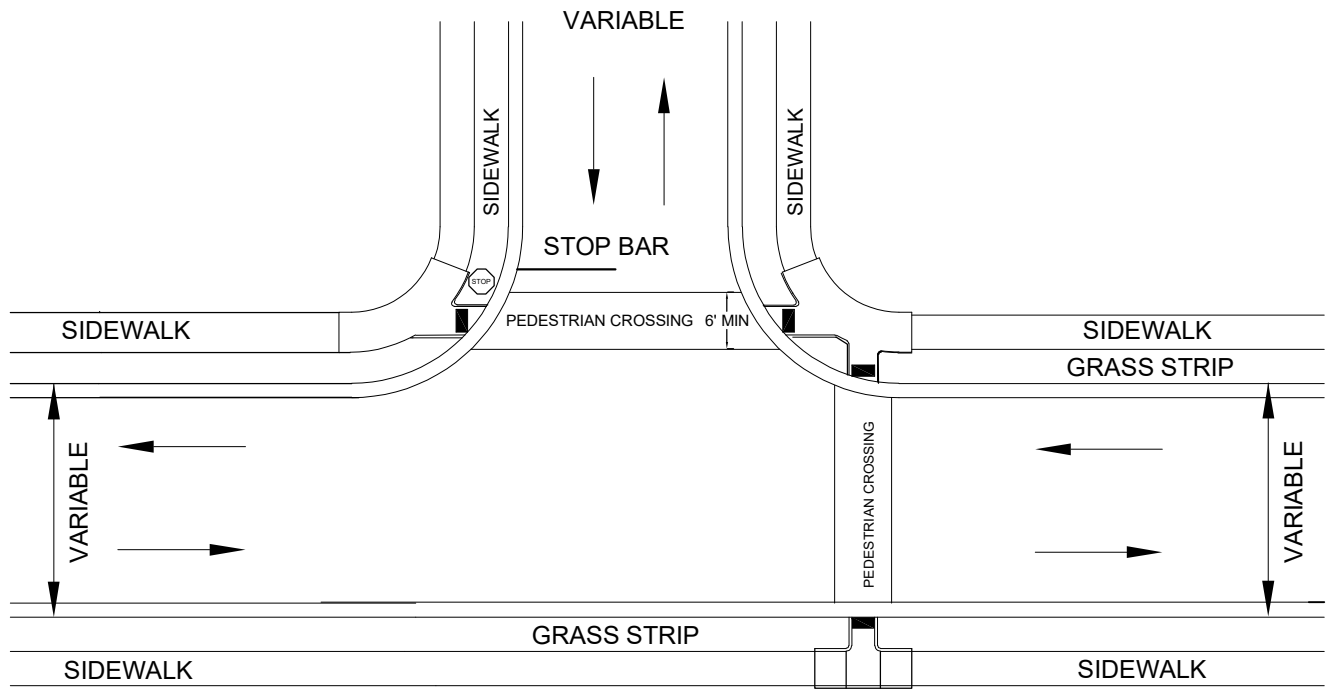
SCALE: NOT TO SCALE

**CURB AND GUTTER
CONNECTION TO STRIP
PAVED STREET**

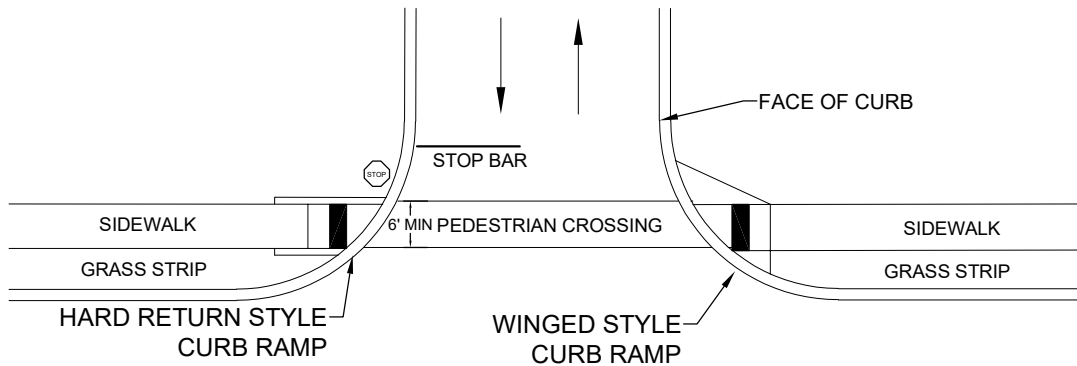
**PUBLIC SERVICES
DEPARTMENT**




DETAIL NO. ST - 05

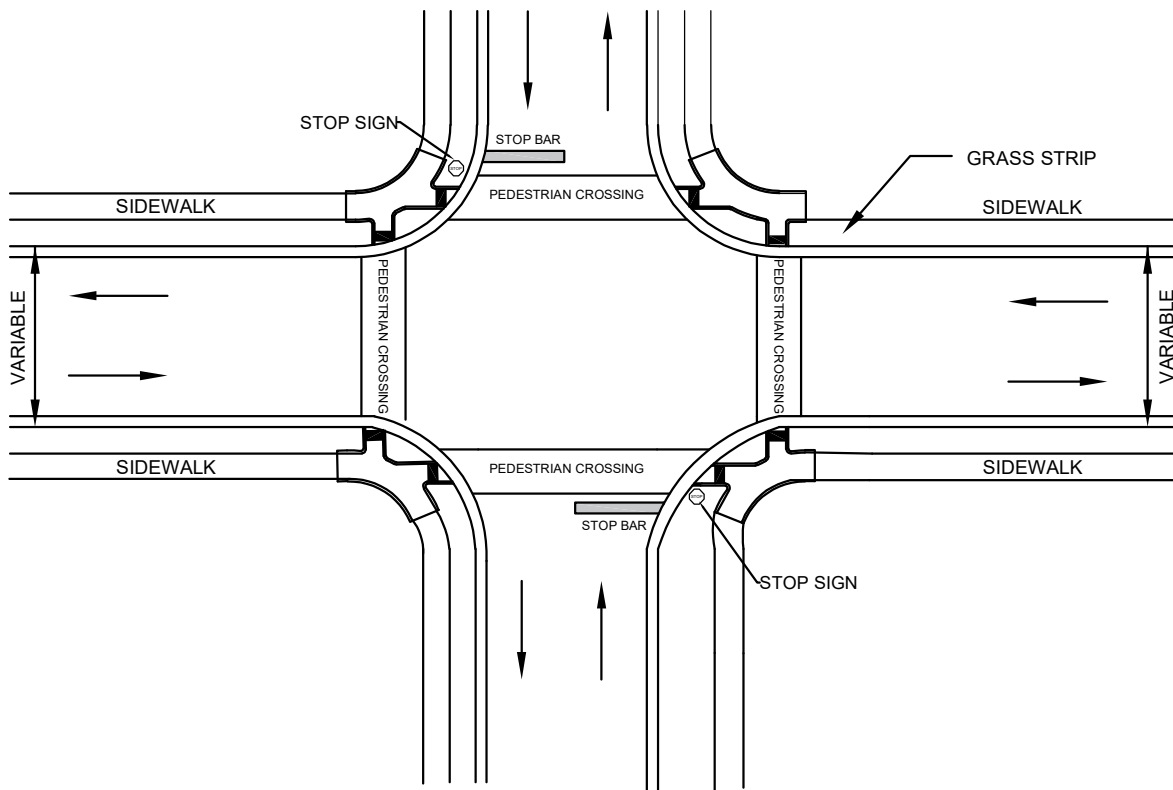


DETAIL SHOWING TYPICAL LOCATION OF SIDEWALK ACCESS RAMP
 PEDESTRIAN CROSSWALKS, STOP SIGN, AND STOP BARS FOR "T" TYPE INTERSECTION.
 STOP BAR MUST BE IN FRONT OF CROSSWALK.
 SIDEWALK ON BOTH SIDES OF THE THRU STREET.
 ALL PAVEMENT MARKINGS MUST CONFORM TO MUTCD STANDARDS.



DETAIL SHOWING TYPICAL LOCATION OF SIDEWALK ACCESS RAMP
 PEDESTRIAN CROSSWALKS, STOP SIGN, AND STOP BARS FOR "T" TYPE INTERSECTION.
 SIDEWALK ON ONE SIDE OF THE THRU STREET.
 STOP BAR SHALL BE IN FRONT OF CROSSWALK.


SECTION: STREETS	CURB RAMPS AT "T" INTERSECTIONS	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. ST - 06
SCALE: NOT TO SCALE		

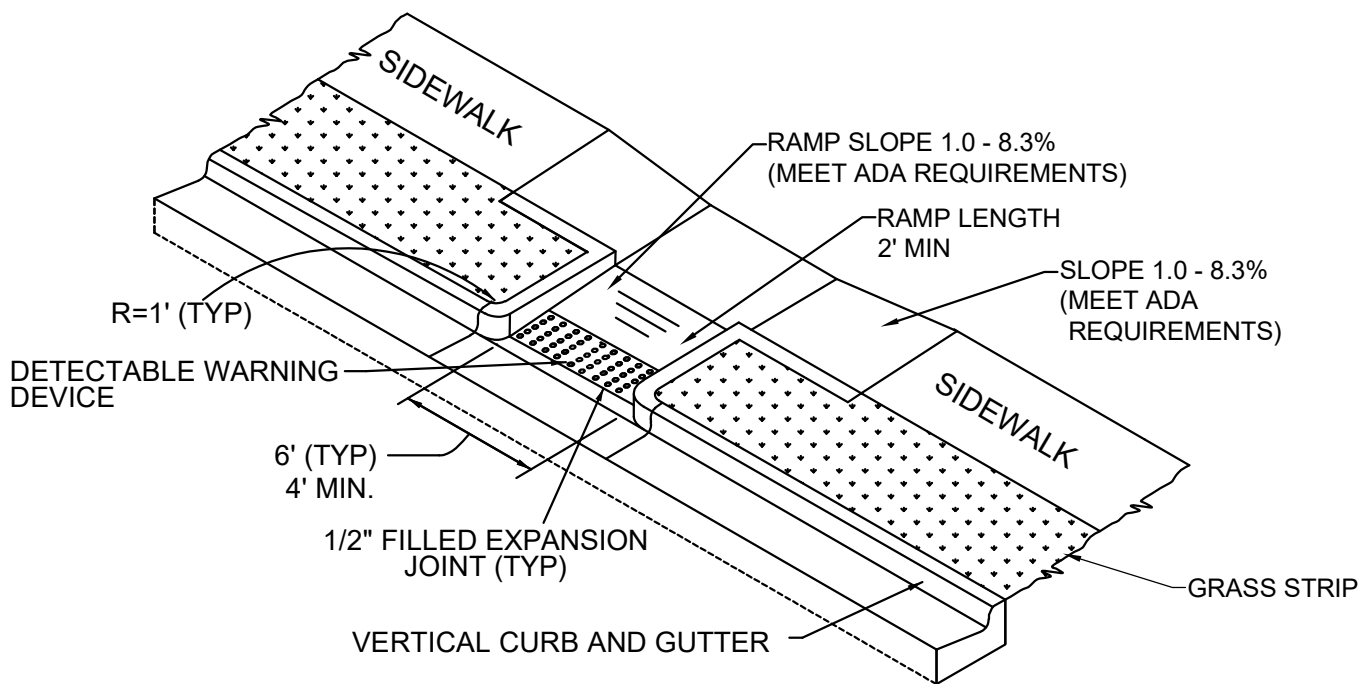


LOCATION OF CURB RAMP, PEDESTRIAN CROSSWALKS, AND STOP BARS

NOTES:


1. CURB RAMPS AT MARKED CROSSWALKS MUST BE ENTIRELY WITHIN THE CROSSWALK.
2. RAMPS MUST MEET CURRENT ADA ACCESSIBILITY STANDARDS.
3. STOP BARS MUST BE INSTALLED PER NC DOT STANDARDS.
4. STOP BARS MUST BE INSTALLED IN FRONT OF CROSSWALK.
5. ALL PAVEMENT MARKINGS MUST MEET MUTCD STANDARDS.

SECTION: STREETS	CURB RAMP LOCATIONS AT INTERSECTION WITH TWO RESIDENTIAL STREETS	PUBLIC SERVICES DEPARTMENT
DATE: 2021		 Town of Leland
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. ST - 07
SCALE: NOT TO SCALE		




NOTES:

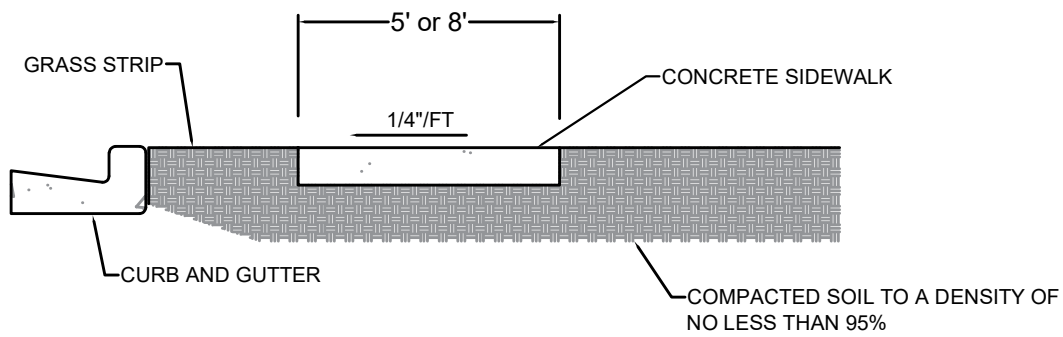
1. THE CENTER PORTION OF THE CURB RAMP SHALL MATCH THE WIDTH OF THE SIDEWALK.
2. THE CENTER PORTION OF THE CURB RAMP SHALL BE AT LEAST 48" WIDE.
3. MAINTAIN POSITIVE STORMWATER FLOW IN THE FLOW LINE OF THE GUTTER.
4. RAMP LENGTH SHALL BE 2' MIN.
5. FILLED EXPANSION JOINTS ARE REQUIRED BETWEEN NEW CONCRETE AND EXISTING CONCRETE AND WHERE CONCRETE CHANGES THE ANGLE OF CONSTRUCTION.
6. RAMPS MUST MEET CURRENT ADA ACCESSIBILITY STANDARDS.

SECTION: STREETS	<p>TYPICAL CURB RAMP ON STREET WITH VERTICAL CURB AND GUTTER (HARD RETURN STYLE)</p>	<p>PUBLIC SERVICES DEPARTMENT</p>
DATE: 2021		 <p>Town of Leland</p>
DRAWN BY: JWP		<p> </p>
CHECKED BY: TOWN PSD		<p>DETAIL NO. ST - 08</p>
SCALE: NOT TO SCALE		

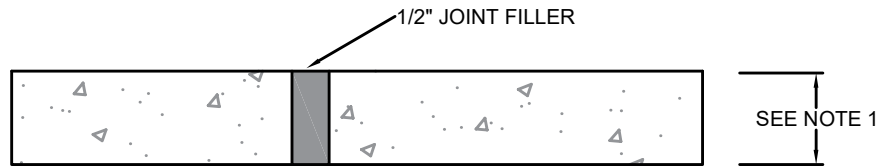
CURB RAMP NOTES

1. ALL CURB RAMPS SHALL BE INSTALLED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) LATEST EDITION.
2. ALL CONCRETE SHALL BE CLASS A WITH A 28 DAY BREAK OF AT LEAST 3,000 PSI.
3. THE WALKING SURFACE OF THE RAMP SHALL HAVE A SLIP RESISTANT FINISH.
4. THE SLOPE OF THE CURB RAMP SHALL NOT EXCEED A 12:1 RATIO.
5. THE DETECTABLE WARNING DEVICE OF THE CURB RAMP SHALL BE RED CONTRAST AND MUST BE IN COMPLIANCE WITH ADA REQUIREMENTS.
6. A FULL DEPTH EXPANSION JOINT SHALL BE INSTALLED WHERE THE CONCRETE CURB RAMP JOINS THE CURB AND GUTTER AND THE CONCRETE CURB RAMP ABUTS EXISTING CONCRETE SIDEWALK.
7. ALL CURB RAMPS SHALL BE THE SAME WIDTH AS THE ADJOINING SIDEWALK OR 48" WIDE IF THE SIDEWALK IS LESS THAN 48" WIDE.
8. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4' X4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL COMPLETELY WITHIN THE PEDESTRIAN CROSSWALK LINES.

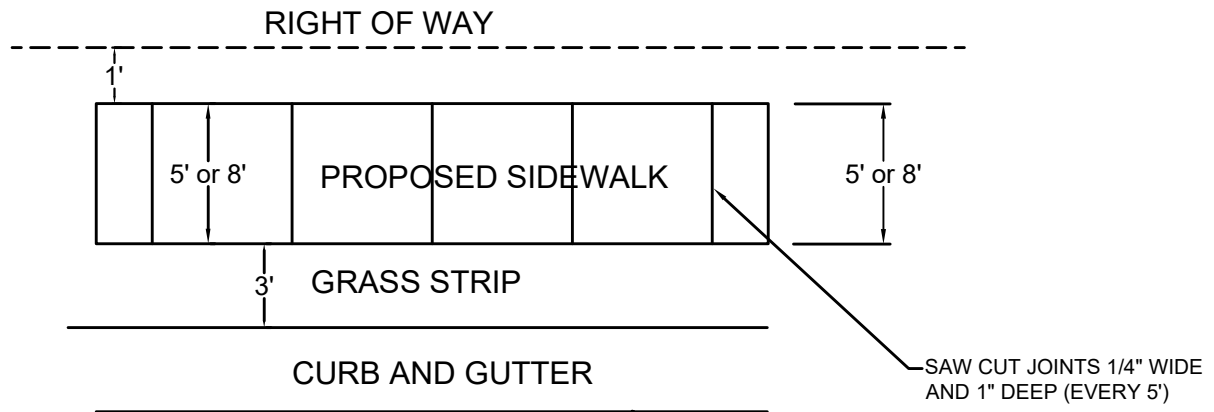
SECTION: STREETS	CURB RAMP NOTES	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



SECTION VIEW



FILLED EXPANSION JOINT

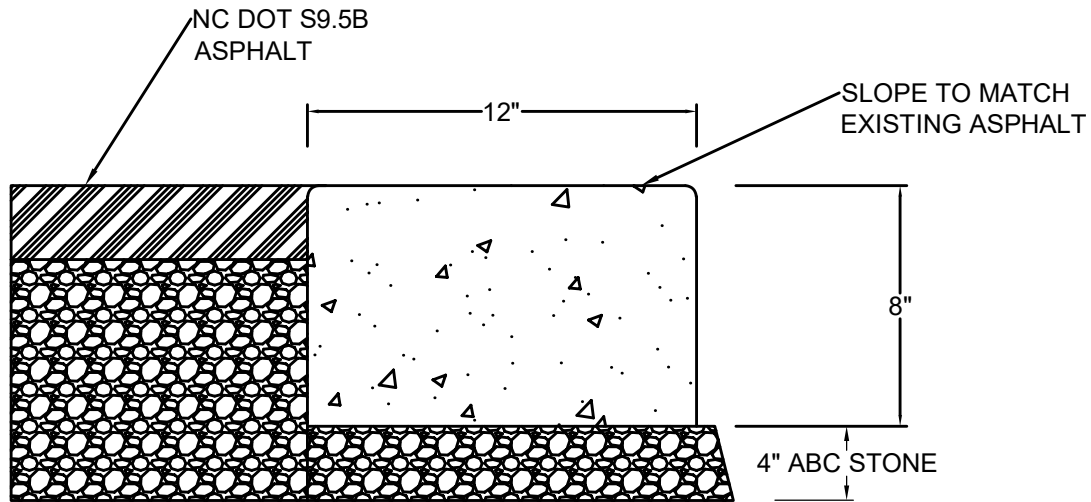


PLAN VIEW

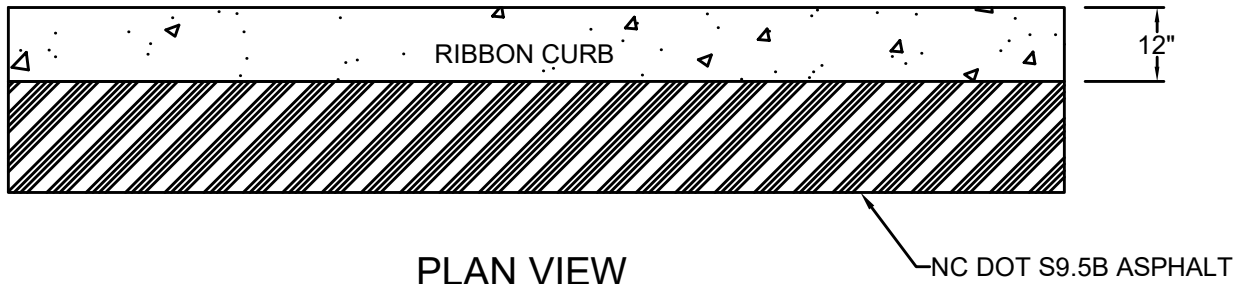
NOTES:

1. SIDEWALK DEPTH SHALL BE 4" EXCEPT AT DRIVEWAYS WHERE THE DEPTH SHALL BE 6".
2. THE DISTANCE BETWEEN FILLED EXPANSION JOINTS SHALL BE 50' MAX.
3. ALL SIDEWALKS SHALL BE CONSTRUCTED WITH 3,000 PSI CONCRETE.
4. ALL MANHOLES, WATER VALVES AND METER BOXES MUST BE LOCATED OUTSIDE OF THE SIDEWALK AREA.
5. ALL SIDEWALK REPAIRS SHOULD BE FROM CONTRACTION JOINT TO CONTRACTION JOINT.
6. THE SIDEWALK WIDTH SHALL BE DETERMINED BY TOWN STAFF.

SECTION: STREETS	5' AND 8' WIDE CONCRETE SIDEWALK	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		




SIDE VIEW

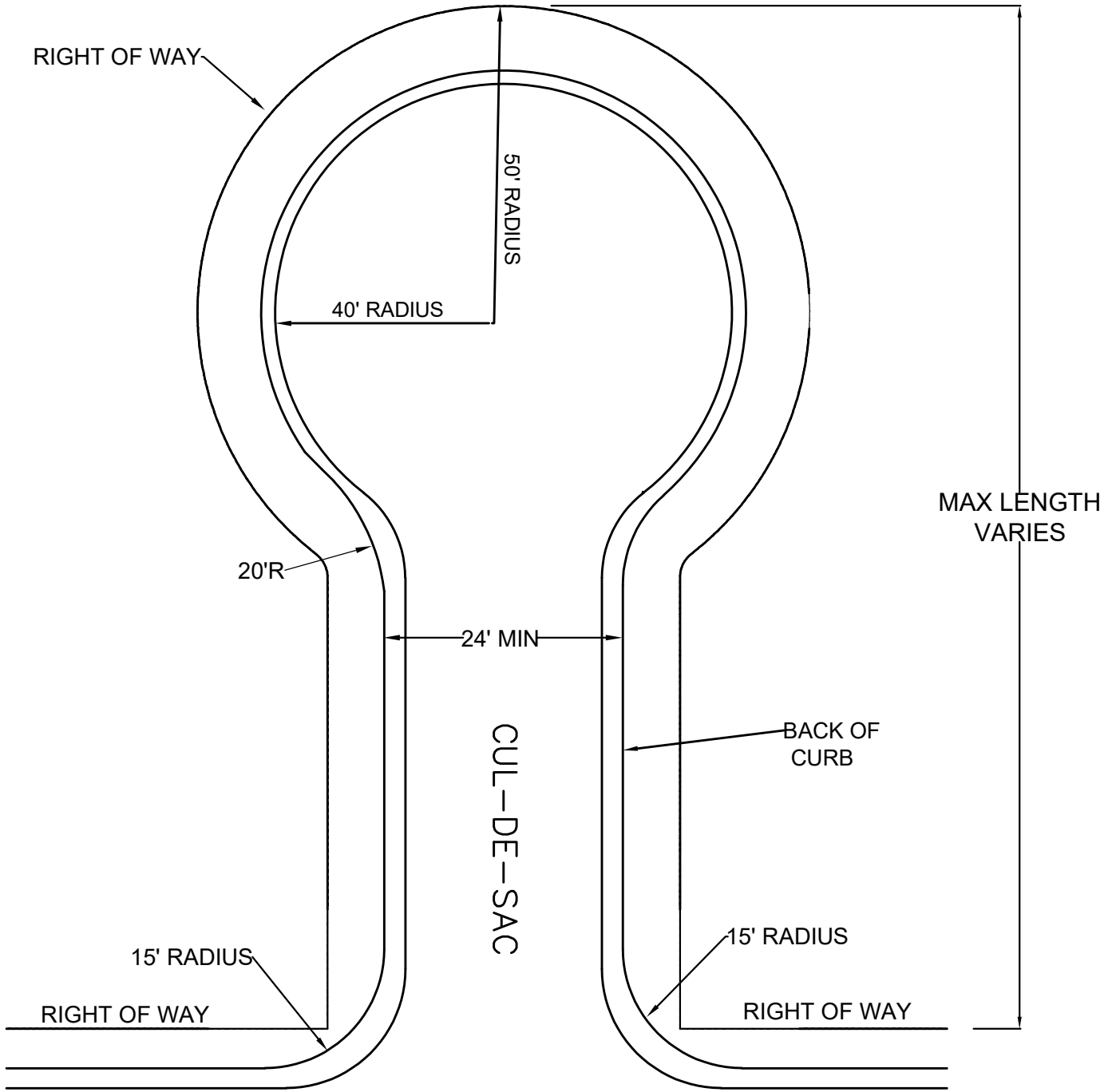


PLAN VIEW


NOTES

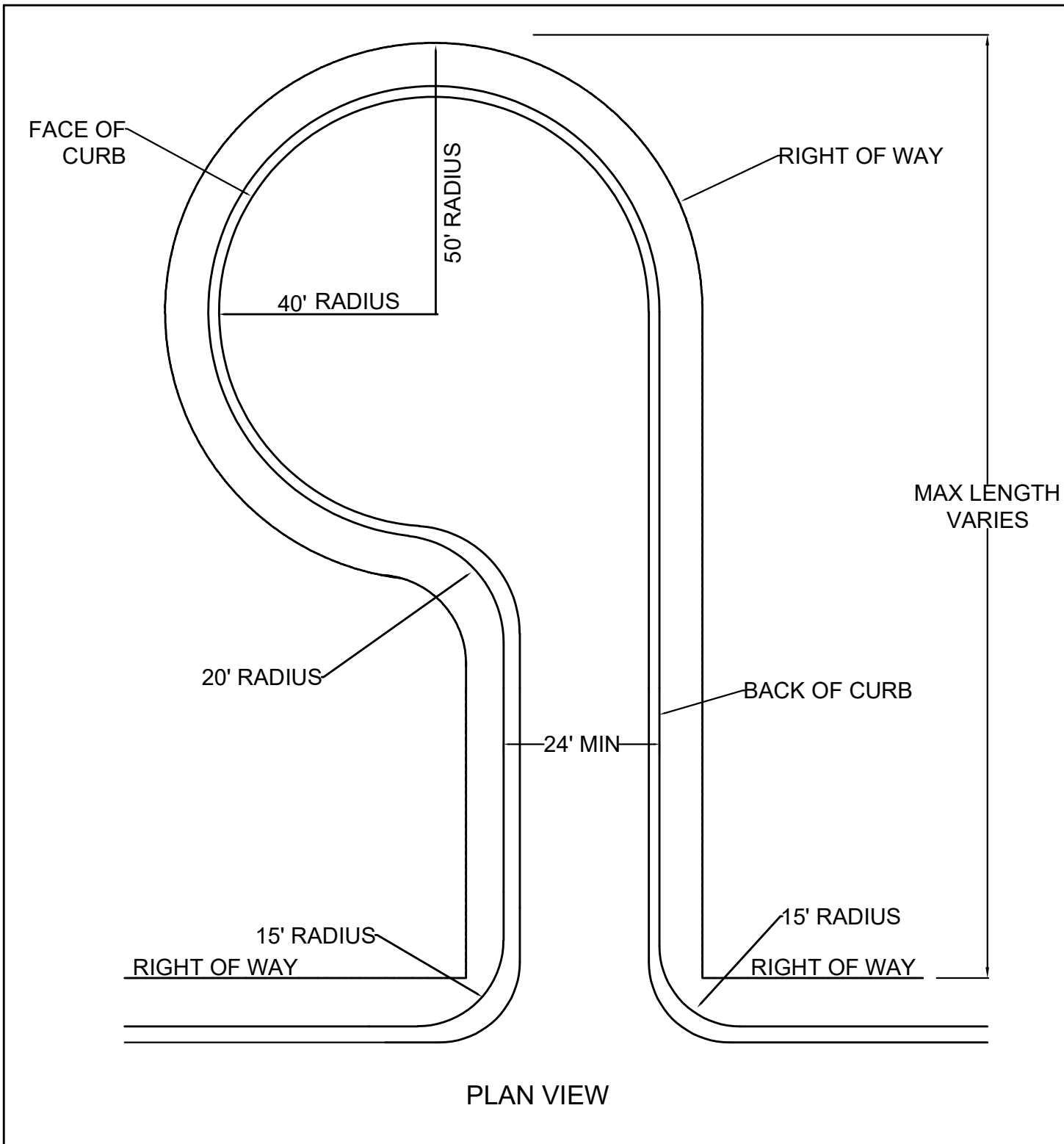
1. CONCRETE SHALL BE 3,000 PSI .
2. FILLED EXPANSION JOINTS SHALL BE NO MORE THAN 50' APART.
3. SAW CUT CONTRACTION JOINTS SHALL BE NO MORE THAN 5' APART.

SECTION: STREETS	<p>CONCRETE RIBBON CURB</p>	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. ST - 14
SCALE: NOT TO SCALE		



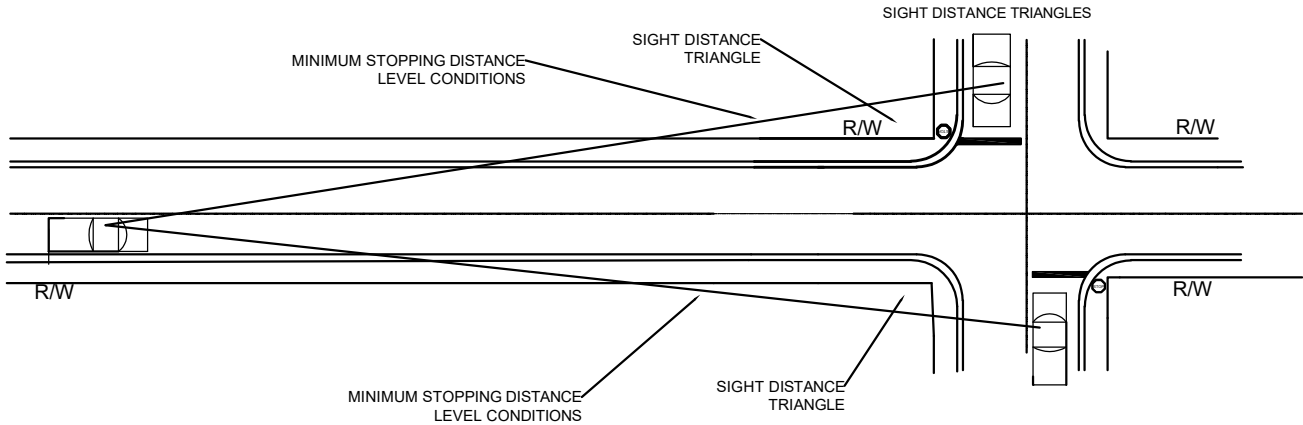
PLAN VIEW

SECTION: STREETS	STRAIGHT CUL DE SAC	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		 Town of Leland
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		DETAIL NO. ST - 15



PLAN VIEW

SECTION: STREETS	OFFSET CUL DE SAC	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. ST - 16
SCALE: NOT TO SCALE		




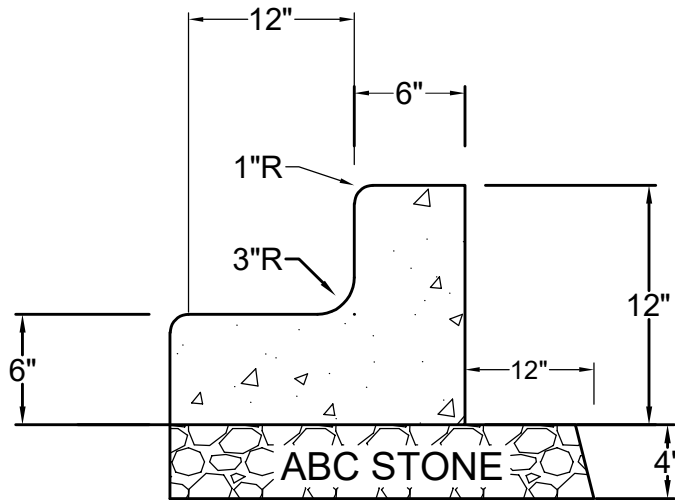
NOTES:

1. MINIMUM STOPPING DISTANCES BASED UPON SPEED AND OTHER FACTORS
2. NO VEGETATION OR MAN MADE OBJECTS HIGHER THAN THREE FEET ARE ALLOWED WITHIN THE SIGHT TRIANGLE.
3. THE ROADWAY DESIGNER IS RESPONSIBLE FOR CALCULATING THE MINIMUM STOPPING DISTANCES AND SIGHT DISTANCES BASED UPON THE ROADWAY DESIGN AND FIELD CONDITIONS.
4. THE DIMENSIONS OF THE SIGHT TRIANGLE WILL VARY WITH THE STOPPING DISTANCE.

MINIMUM STOPPING DISTANCE LEVEL CONDITIONS FOR CARS	
DESIGN SPEED	MINIMUM STOPPING DISTANCE (FT)
15	80
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495


SOURCE: AASHTO GREEN BOOK,
LATEST EDITION

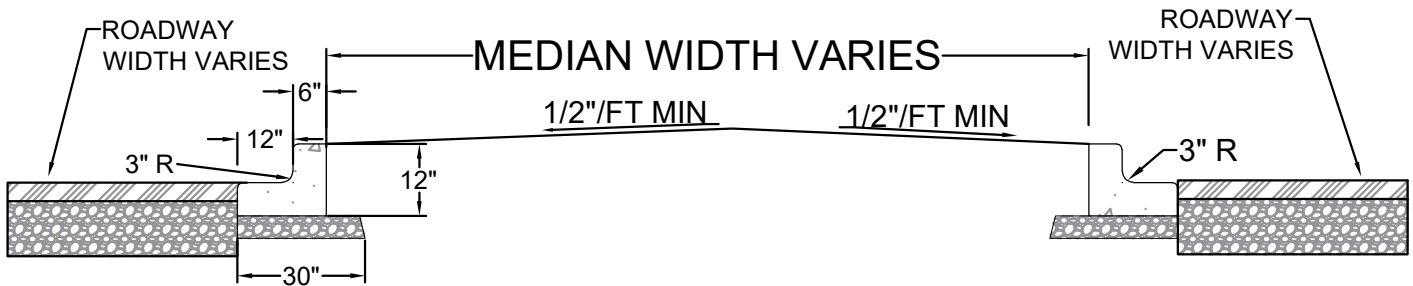
SECTION: STREETS	STOPPING DISTANCES FOR STREET INTERSECTIONS	PUBLIC SERVICES DEPARTMENT
DATE: 2021		 Town of Leland
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



NOTES


1. CONCRETE SHALL BE 3,000 PSI.
2. FILLED EXPANSION JOINTS SHALL BE NO MORE THAN 50' APART.
3. SAW CUT CONTRACTION JOINTS SHALL BE NO MORE THAN 5' APART.

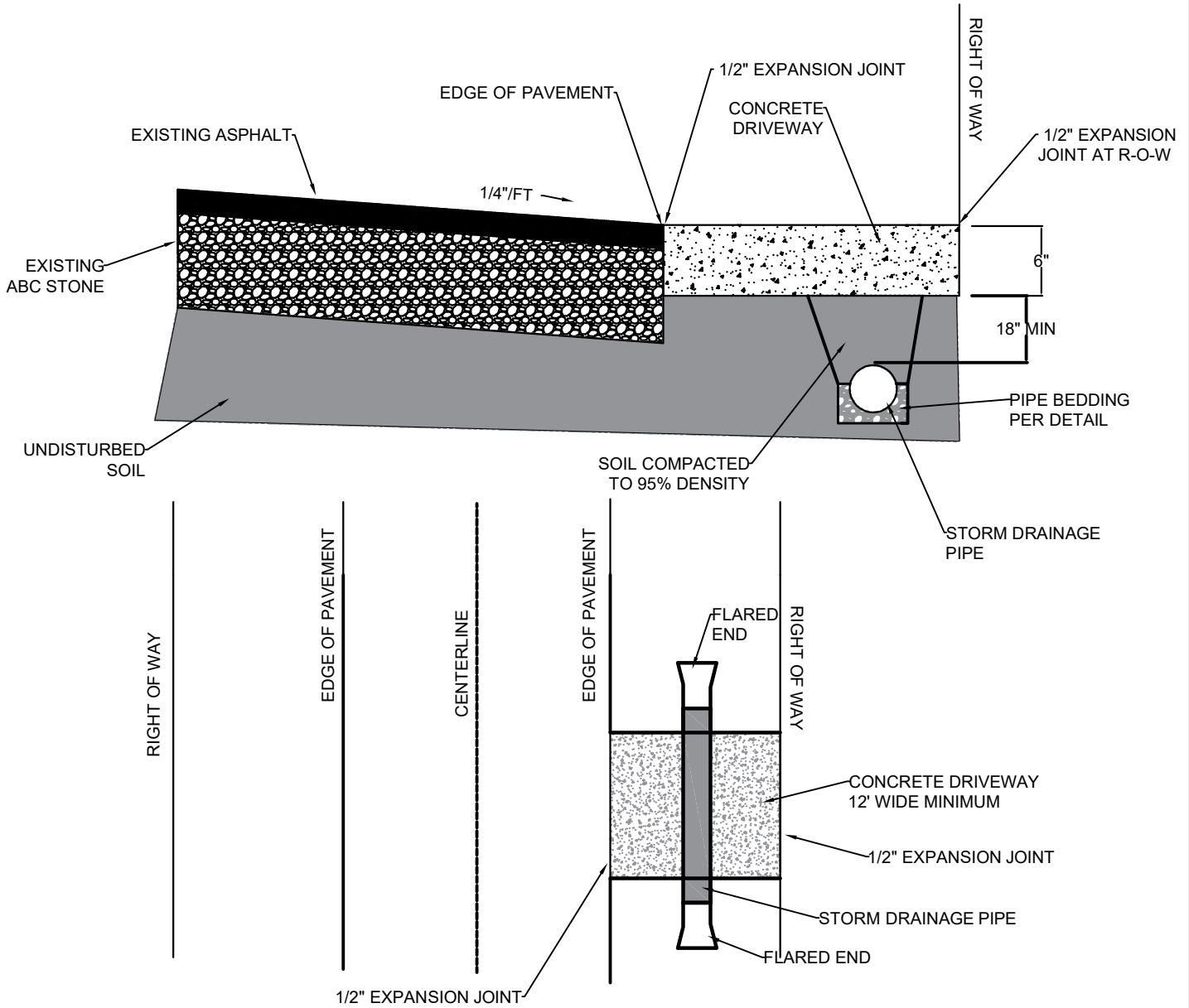
SECTION: STREETS	CONCRETE MEDIAN CURB	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. ST - 18
SCALE: NOT TO SCALE		



NOTES:


1. ALL MEDIANS LESS THAN 3 FT WIDE SHALL BE 6" CONCRETE
2. MEDIANS 3 FT TO 6 FT WIDE SHOULD BE GRASS.
3. MEDIANS GREATER THAN 6 FT WIDE SHALL BE LANDSCAPED. THE LANDSCAPE PLAN MUST BE APPROVED BY TOWN STAFF.
4. THE AREA BETWEEN THE MEDIAN CURBS SHALL BE EXCAVATED A MINIMUM DEPTH OF 6" BELOW THE EXISTING GRADE AND APPROVED TOPSOIL USED FOR GRASSED AND LANDSCAPED MEDIANS.
5. IRRIGATION SYSTEMS IN THE MEDIAN MUST BE APPROVED BY TOWN STAFF.
6. THE MEDIAN SHALL BE DESIGNED FOR POSITIVE DRAINAGE TO THE CURB.

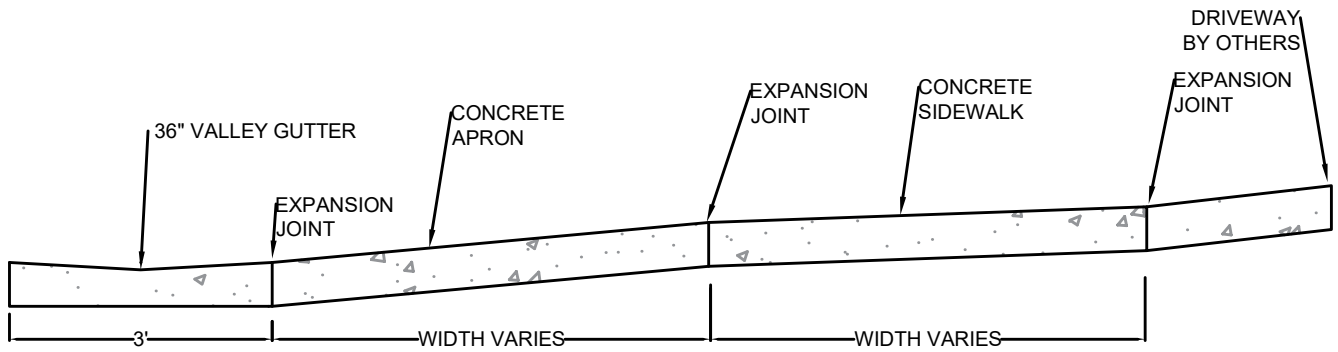
SECTION: STREETS	ROADWAY MEDIAN	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		DETAIL NO. ST -19



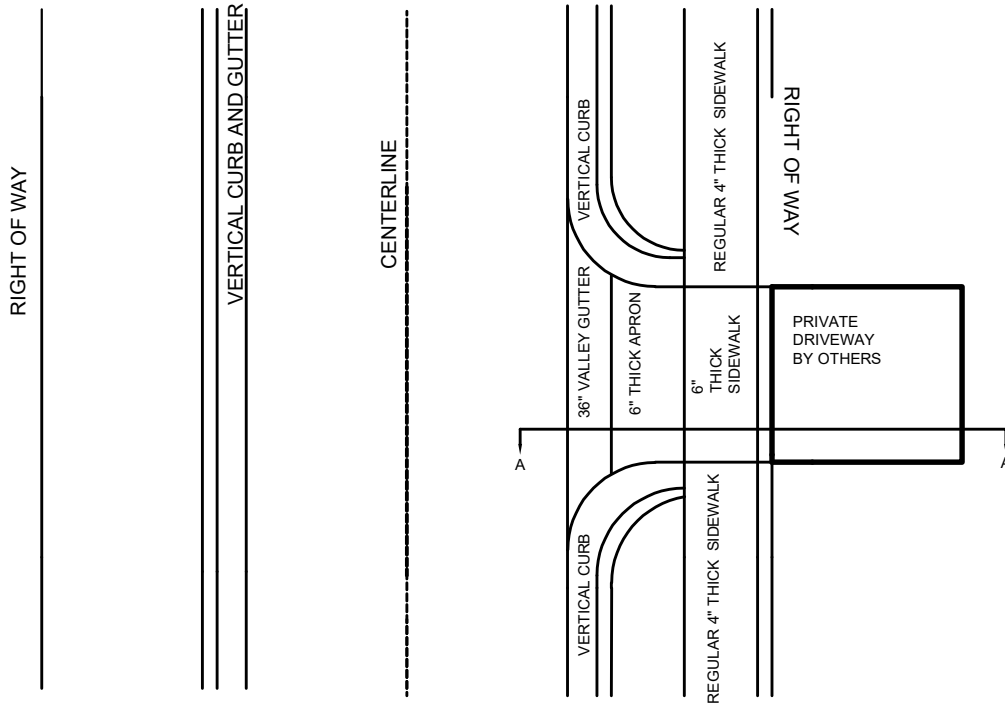
NOTES:


1. THE STORM DRAINAGE PIPE SHALL BE BASED UPON THE UPSTREAM DRAINAGE BASIN SIZE.
2. THE STORM DRAINAGE PIPE SHALL BE CENTERED ON THE EXISTING DRAINAGE SWALE AND MATCH THE EXISTING FLOW LINE.

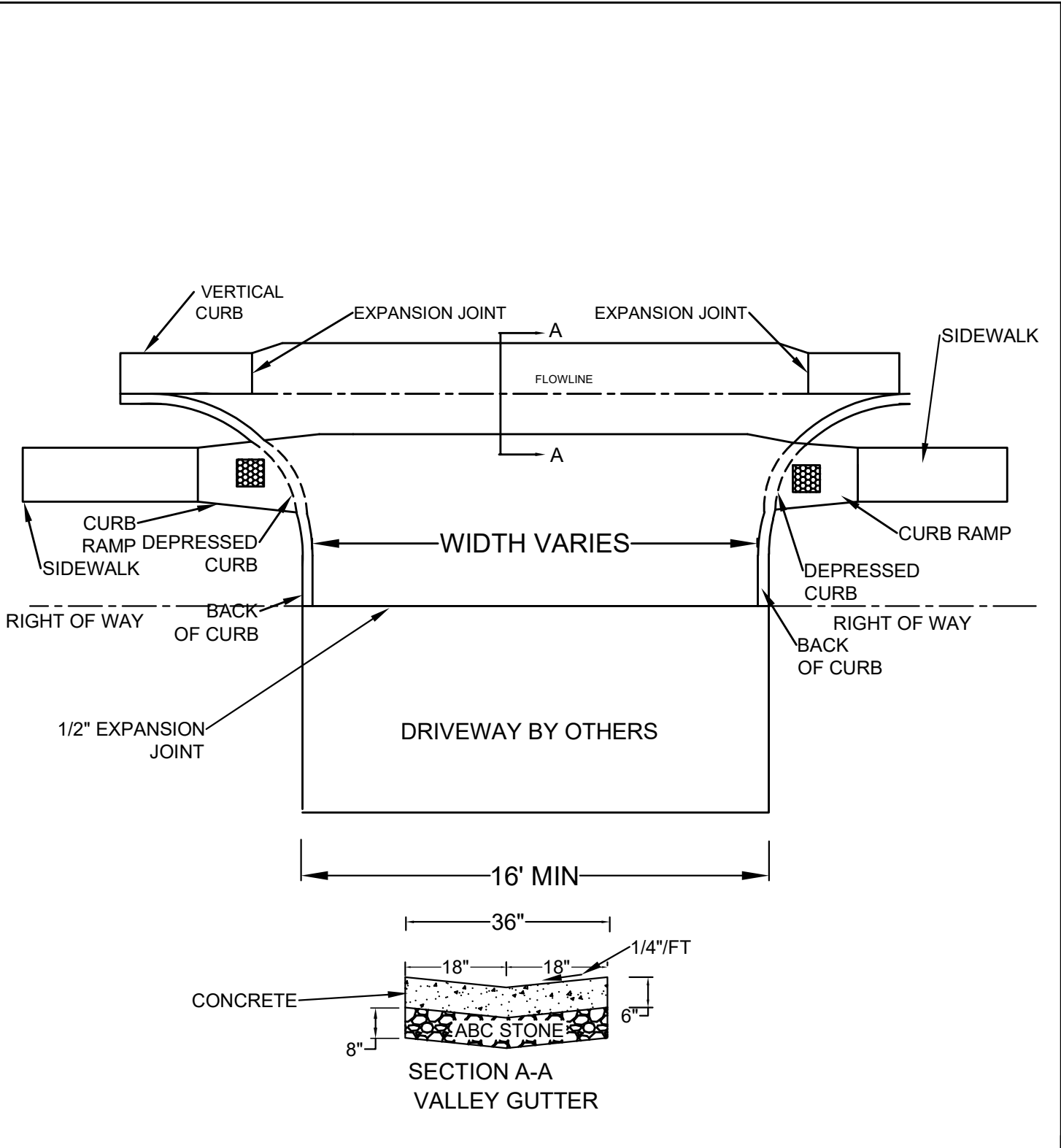
SECTION: STREETS	DRIVEWAY ON STRIP PAVED ROAD	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



SECTION A - A



SECTION: STREETS	RESIDENTIAL DRIVEWAY ON STREET WITH VERTICAL CURB AND GUTTER	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



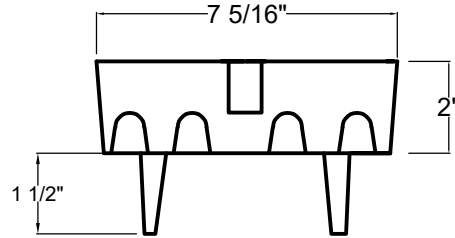
SECTION: STREETS
DATE: 2021
DRAWN BY: JWP
CHECKED BY: TOWN PSD
SCALE: NOT TO SCALE

STREET TYPE
 DRIVEWAY FOR
 LARGER COMMERCIAL

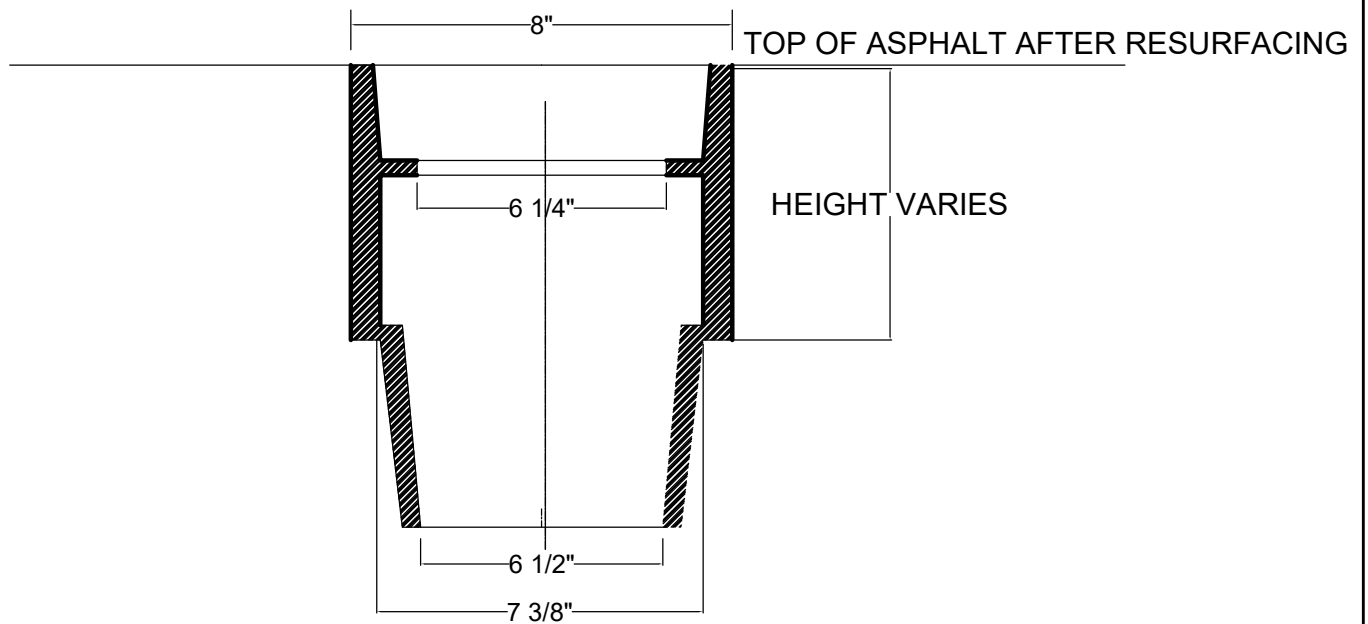
PUBLIC SERVICES
 DEPARTMENT



DETAIL NO. ST - 22




VALVE BOX LID



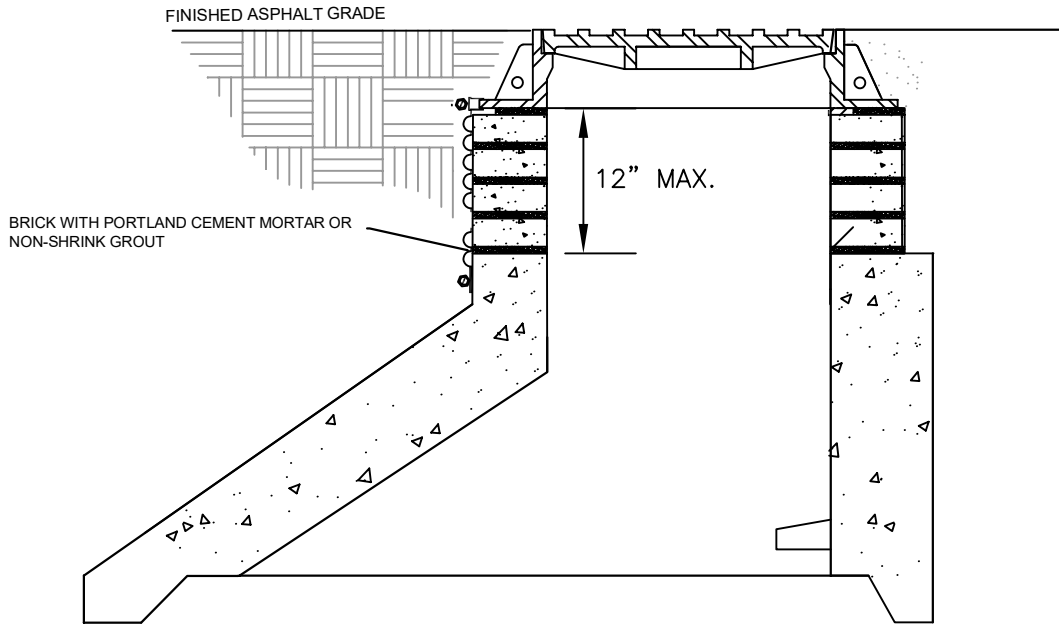
VALVE BOX RISER

NOTES;

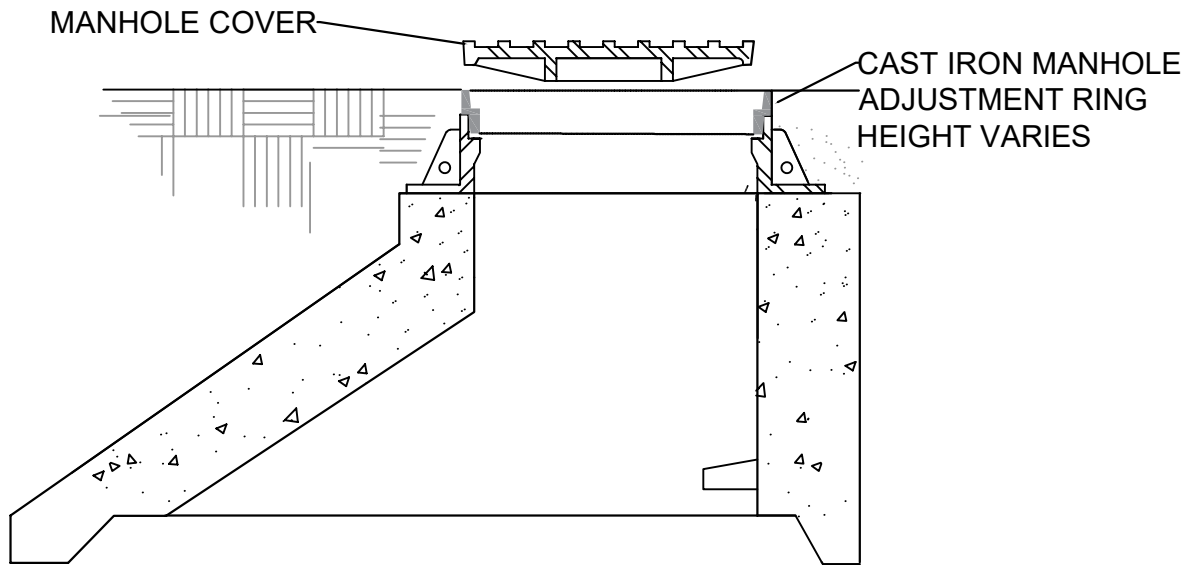
1. CONTACT UTILITY PROVIDER BEFORE COMMENCING ANY WORK.
2. REMOVE EXISTING VALVE BOX LID.
3. INSERT VALVE BOX RISER WITH CORRECT HEIGHT DIMENSION TO ADJUST TOP TO FINISHED GRADE AND REPLACE VALVE BOX LID.

SECTION: STREETS	<p>ADJUST WATER VALVE BOX TO GRADE</p>	<p>PUBLIC SERVICES DEPARTMENT</p>
DATE: 2021		 <p>Town of Leland</p>
DRAWN BY: JWP		<p>DETAIL NO. ST - 23</p>
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

CEMENT BRICK METHOD




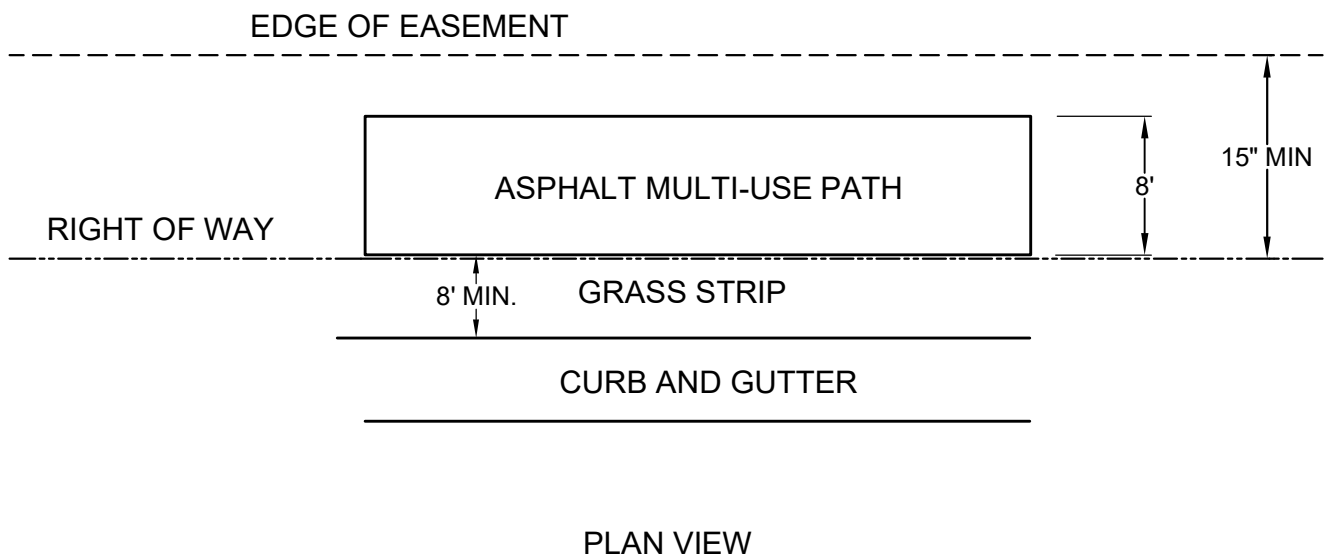
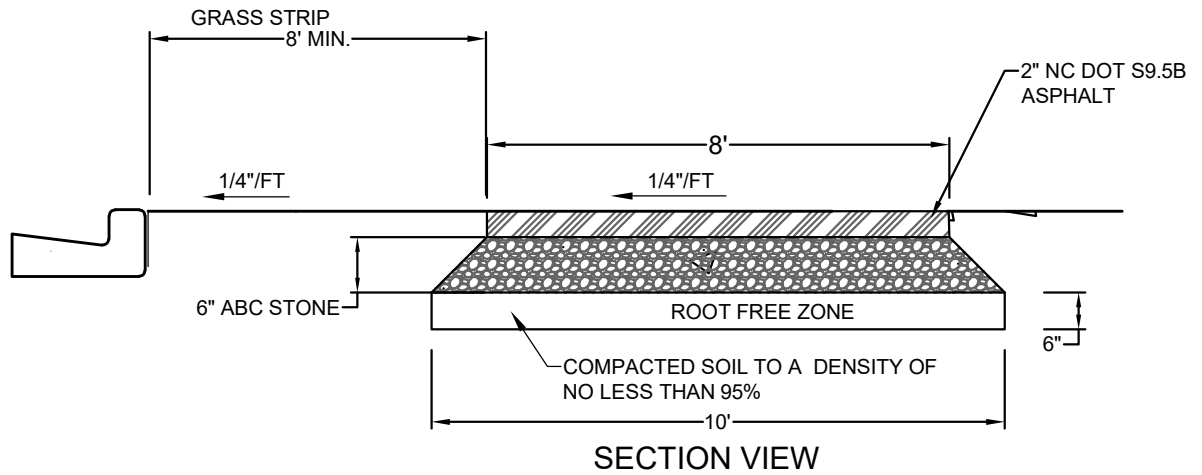
CAST IRON ADJUSTMENT RING METHOD



NOTE:


1. REMOVE INFILTRATION PAN PRIOR TO ADJUSTING CASTING TO GRADE AND REINSTALL INFILTRATION PAN AFTER CASTING HAS BEEN ADJUSTED TO GRADE.
2. CONTACT UTILITY PROVIDER BEFORE COMMENCING ANY WORK.

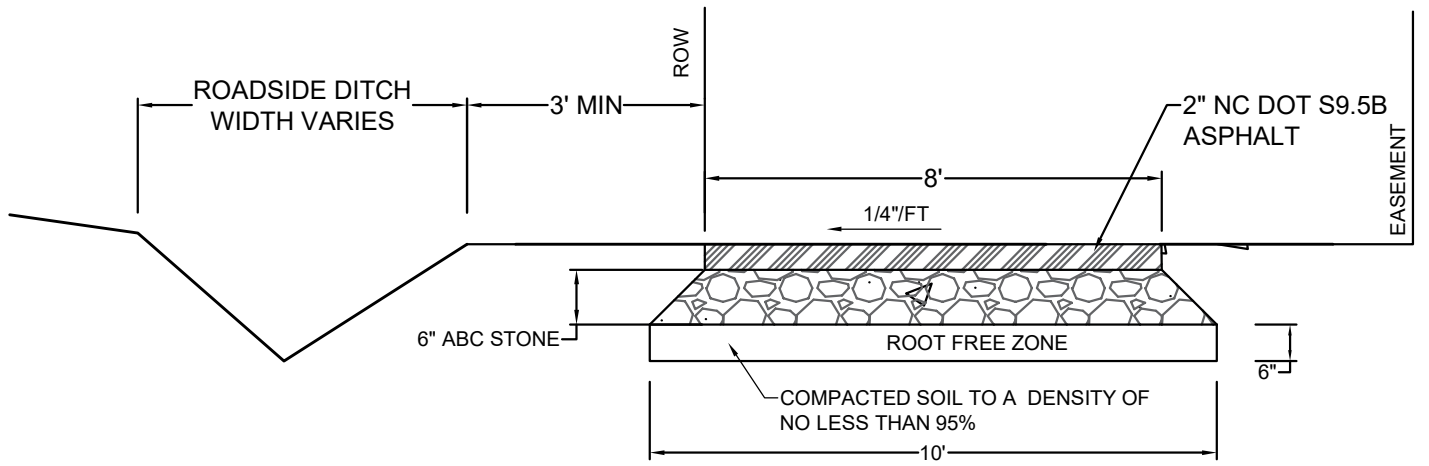
SECTION: STREETS	STANDARD MANHOLE CASTING ADJUSTMENT TO GRADE	PUBLIC SERVICES DEPARTMENT
DATE: 2021		 Town of Leland
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. ST - 24
SCALE: NOT TO SCALE		



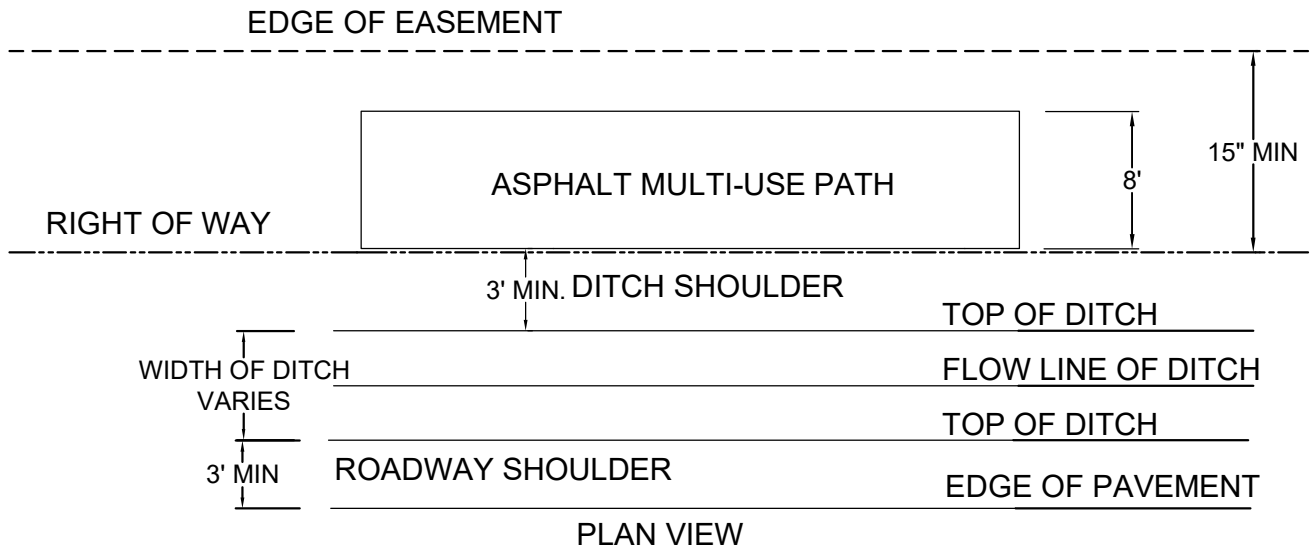
NOTES

1. THE ROOT FREE ZONE SHALL BE FREE OF ALL ROOTS > 1/2".

SECTION: STREETS	8' MULTI-USE PATH ON STREET WITH CURB AND GUTTER	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		DETAIL NO. ST - 25



SECTION VIEW



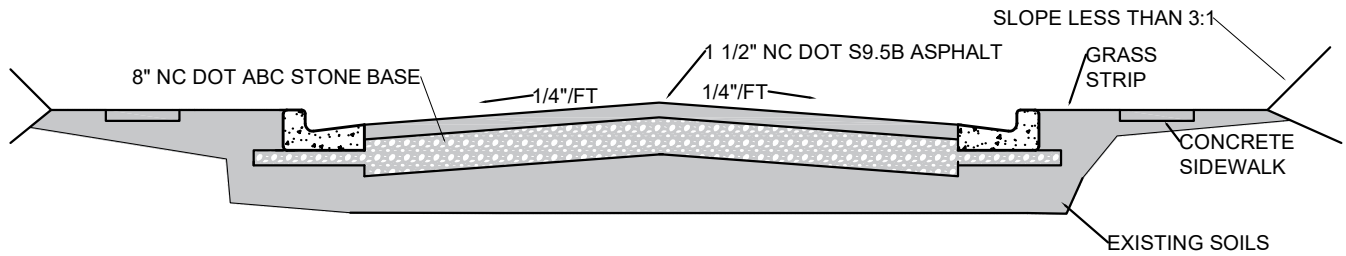
PLAN VIEW

NOTES:

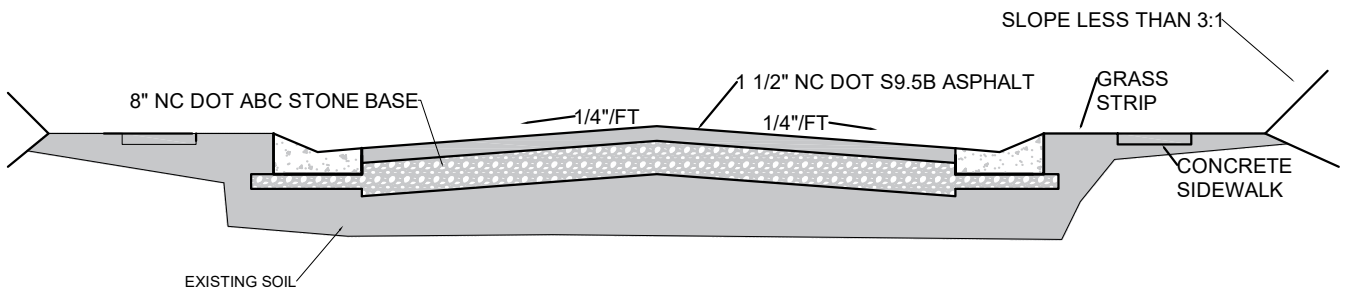
- 1. THE ROOT FREE ZONE SHALL BE FREE OF ALL ROOTS > 1/2".

SECTION: STREETS	8' MULTI-USE PATH ON STREET WITH DITCH SECTION	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

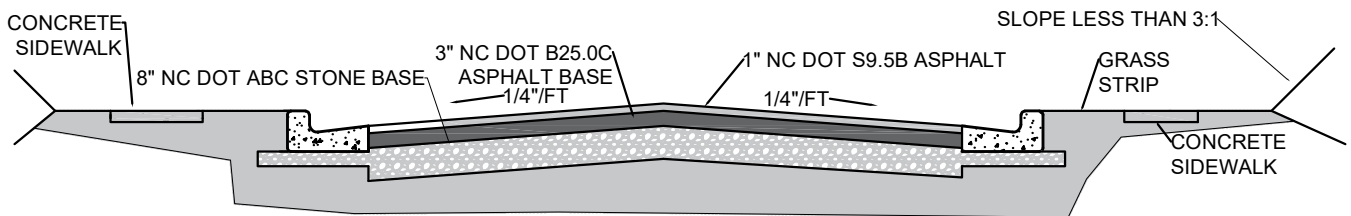
RESIDENTIAL STREET WITH VERTICAL CURB AND GUTTER



RESIDENTIAL STREET WITH MODIFIED VALLEY CURB



COLLECTOR ROAD WITH VERTICAL CURB



NOTE:

1. FOR PAVEMENT WIDTH, RIGHT OF WAY WIDTH, GRASS STRIP WIDTH AND SIDEWALK WIDTH CONSULT WITH THE TOWN ENGINEER AND PLANNING STAFF.
2. THE ASPHALT AND BASE DEPTHS SHOWN ARE THE MINIMUM VALUES FOR COLLECTOR AND RESIDENTIAL STREETS. THE ACTUAL ASPHALT AND BASE DEPTHS SHALL BE CALCULATED BASED UPON THE ACTUAL SOIL CONDITIONS AS SHOWN IN THE DESIGN MANUAL.

SECTION: STREETS

DATE: 2021

DRAWN BY: JWP

CHECKED BY: TOWN PSD

SCALE: NOT TO SCALE

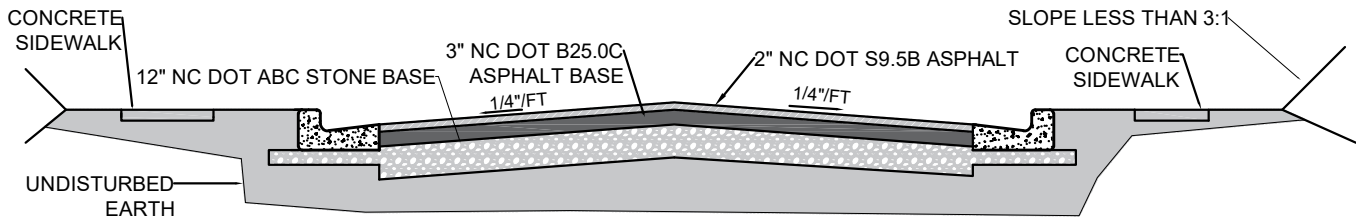
RESIDENTIAL AND COLLECTOR STREET CROSS SECTIONS

PUBLIC SERVICES
DEPARTMENT




DETAIL NO. ST - 27

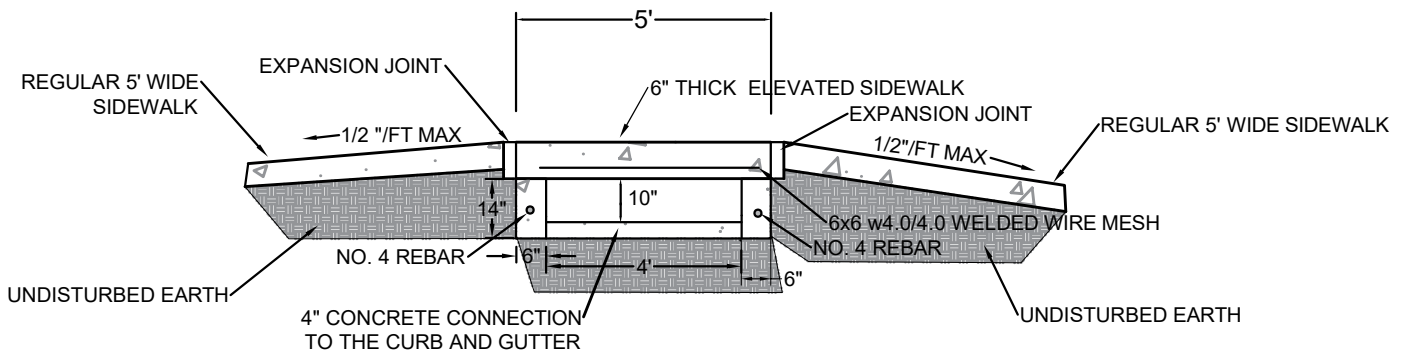
MAJOR THOROUGHFARE WITH 30" VERTICAL CURB



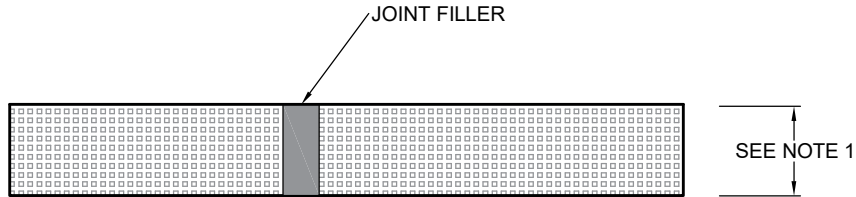
NOTES:

1. FOR PAVEMENT WIDTH, RIGHT OF WAY WIDTH, GREEN SPACE WIDTH AND SIDEWALK WIDTH, CONSULT WITH THE TOWN ENGINEER AND PLANNING STAFF.
2. THE ASPHALT AND BASE DEPTHS SHOWN ARE THE MINIMUM VALUES FOR A THOROUGHFARE STREET. THE ACTUAL ASPHALT AND BASE DEPTHS SHALL BE CALCULATED BASED UPON THE ACTUAL SOIL CONDITIONS AS SHOWN IN THE DESIGN MANUAL.

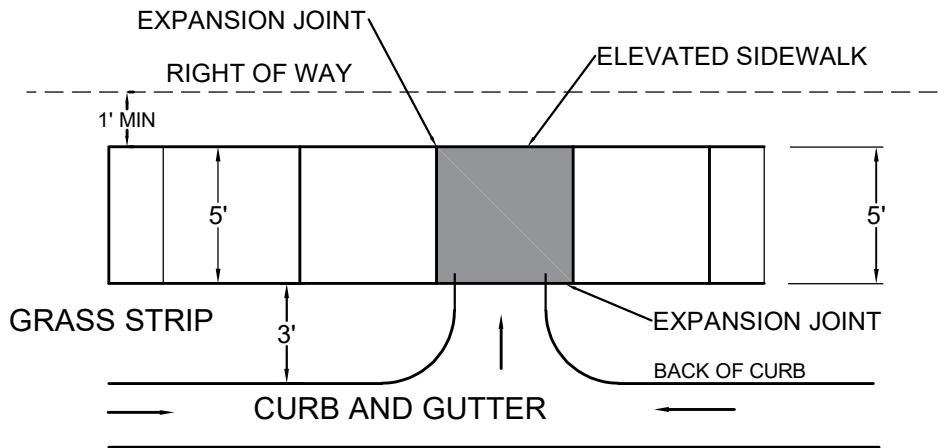
SECTION: STREETS	MAJOR THOROUGHFARE WITH 30" VERTICAL CURB	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



SECTION VIEW



TRAVERSE EXPANSION JOINT



PLAN VIEW

NOTES

1. ELEVATED SIDEWALK THICKNESS SHALL BE 6".
2. EXPANSION MATERIAL SHALL BE PLACED BETWEEN THE SUPPORTS AND BOTTOM OF SIDEWALK.

SECTION: STREETS

DATE: 2021

DRAWN BY: JWP

CHECKED BY: TOWN PSD

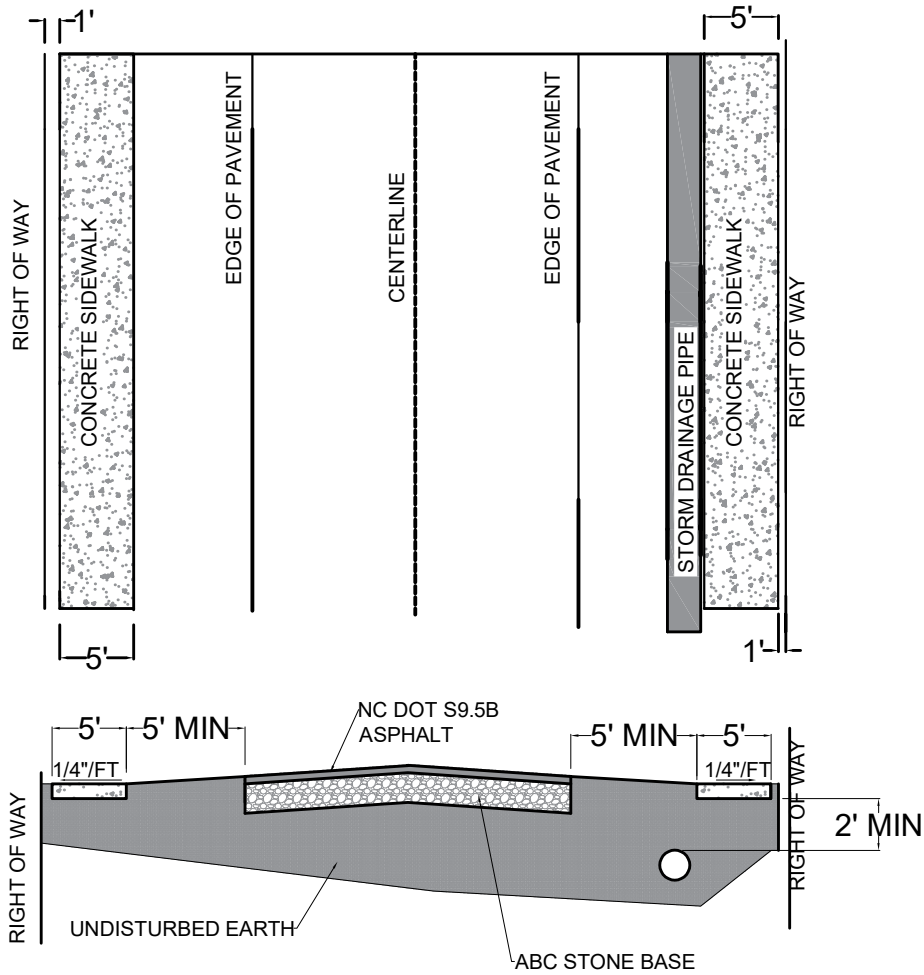
SCALE: NOT TO SCALE

ELEVATED SIDEWALK
WITH OPENING FOR
DRAINAGE

PUBLIC SERVICES
DEPARTMENT




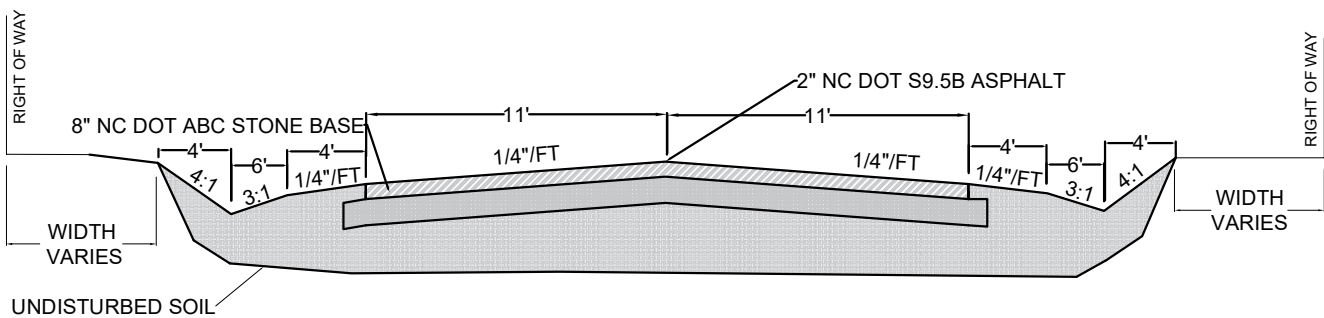
DETAIL NO. ST - 29



NOTES:

1. SIDEWALK DEPTH SHALL BE 4" EXCEPT AT DRIVEWAYS WHERE THE DEPTH SHALL BE 6".
2. THE DISTANCE BETWEEN FILLED EXPANSION JOINTS SHALL BE 50' MAX.
3. ALL SIDEWALKS SHALL BE CONSTRUCTED WITH 3,000 PSI CONCRETE.
4. ALL MANHOLES, WATER VALVES AND METER BOXES MUST BE LOCATED OUTSIDE OF THE SIDEWALK AREA.
5. ALL SIDEWALK REPAIRS SHOULD BE FROM CONTRACTION JOINT TO CONTRACTION JOINT.

SECTION: STREETS	STRIP PAVED STREET WITH SIDEWALKS ON BOTH SIDES OF THE STREET	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		DETAIL NO. ST - 30
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

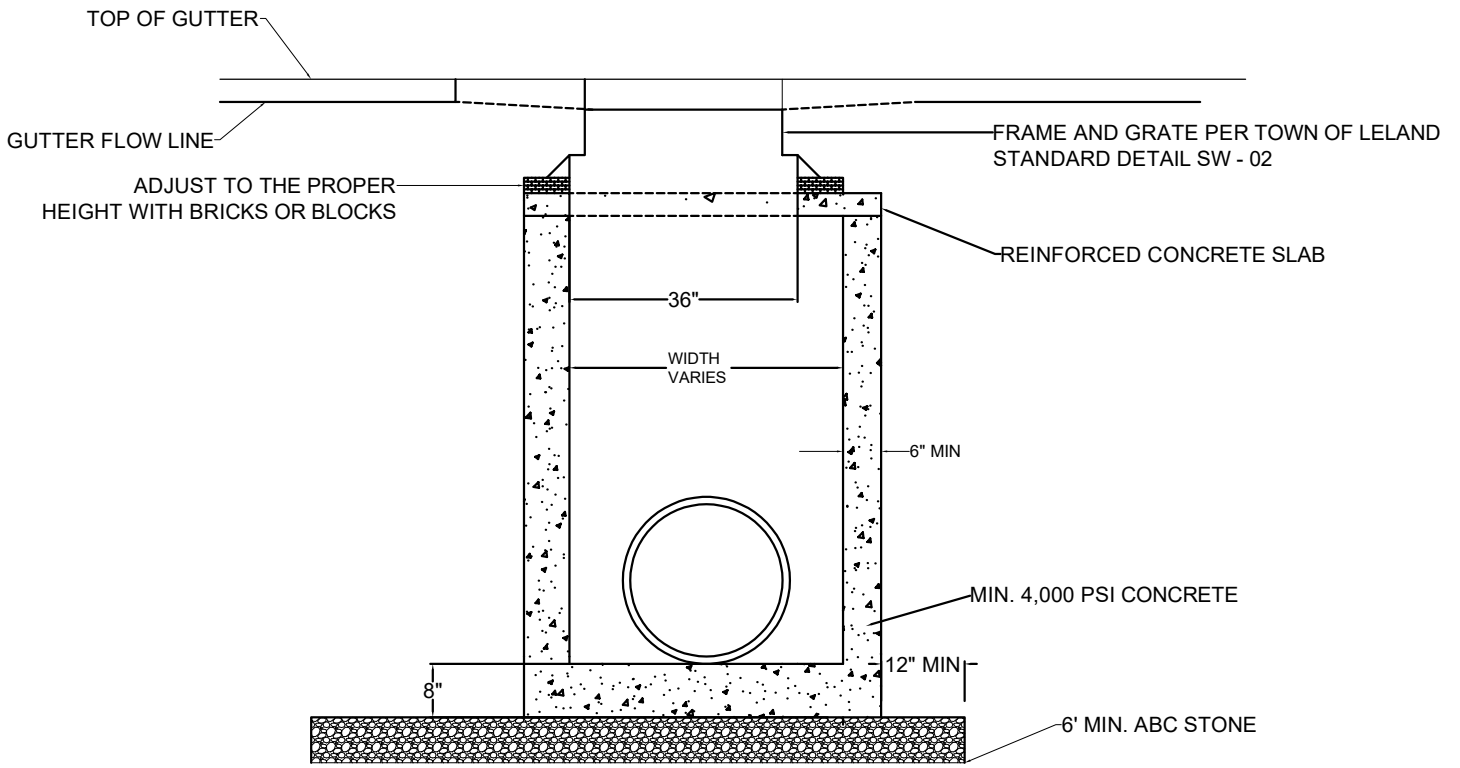


STRIP PAVED RESIDENTIAL STREET WITH DITCHES

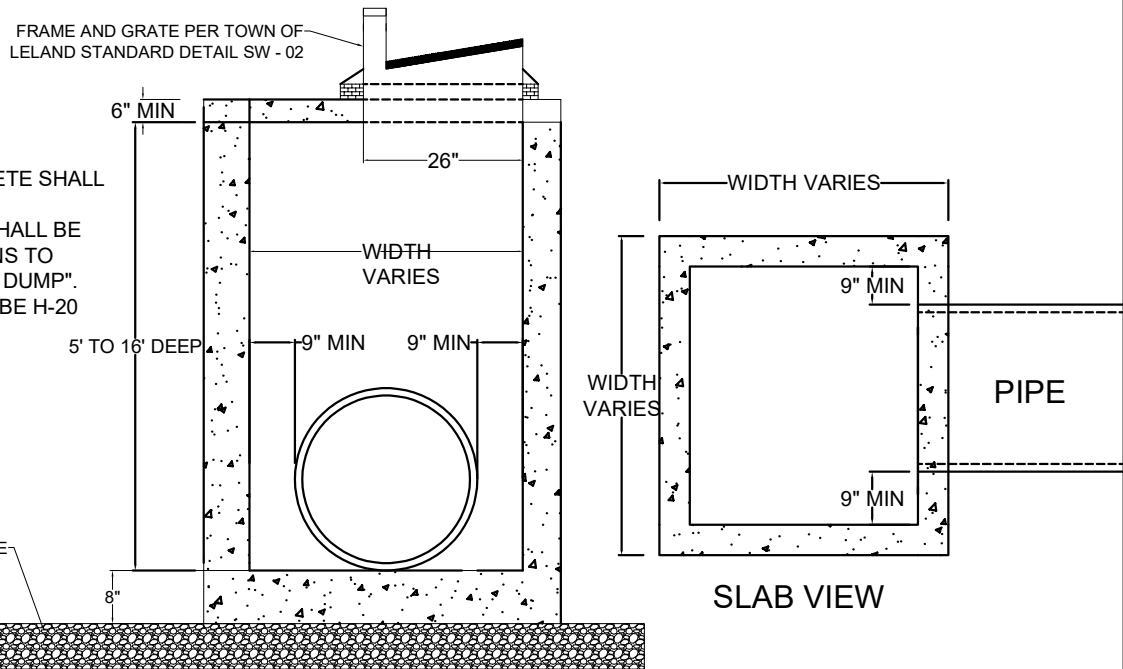
NOTE:

1. FOR PAVEMENT WIDTH, RIGHT OF WAY WIDTH, GREEN SPACE WIDTH AND SIDEWALK WIDTH, REFER TO THE ROADWAY DESIGN MANUAL.
2. THE ASPHALT AND BASE DEPTHS SHOWN ARE THE MINIMUM VALUES FOR A RESIDENTIAL STREET. THE ACTUAL ASPHALT AND BASE DEPTHS SHALL BE CALCULATED BASED UPON THE ACTUAL SOIL CONDITIONS AS SHOWN IN THE DESIGN MANUAL.

SECTION: STREETS	STRIP PAVED RESIDENTIAL STREET WITH DITCHES	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. ST - 31
SCALE: NOT TO SCALE		



FRONT VIEW




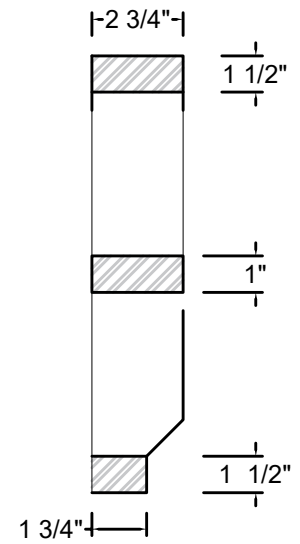
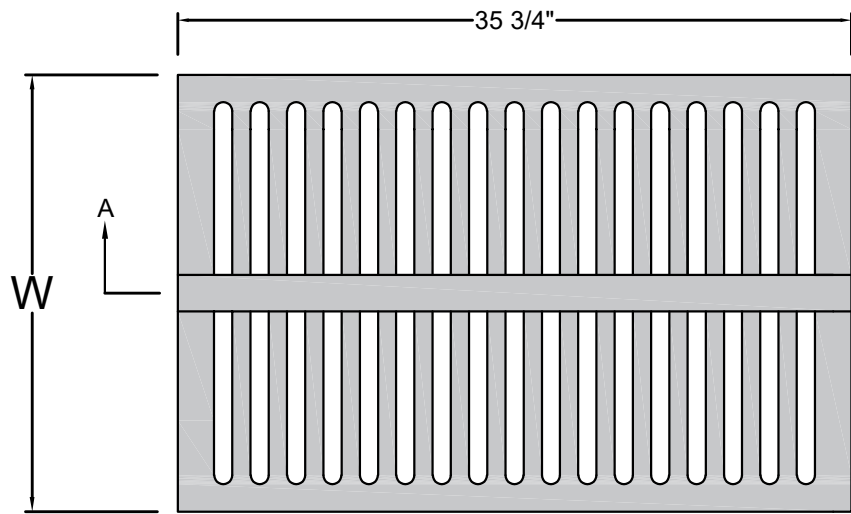
SIDE VIEW

SLAB VIEW

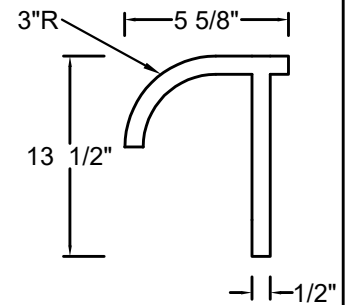
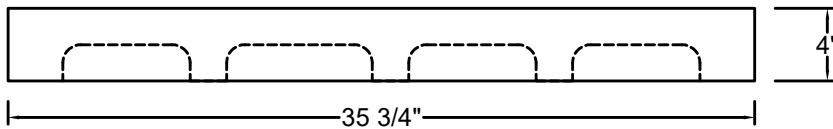
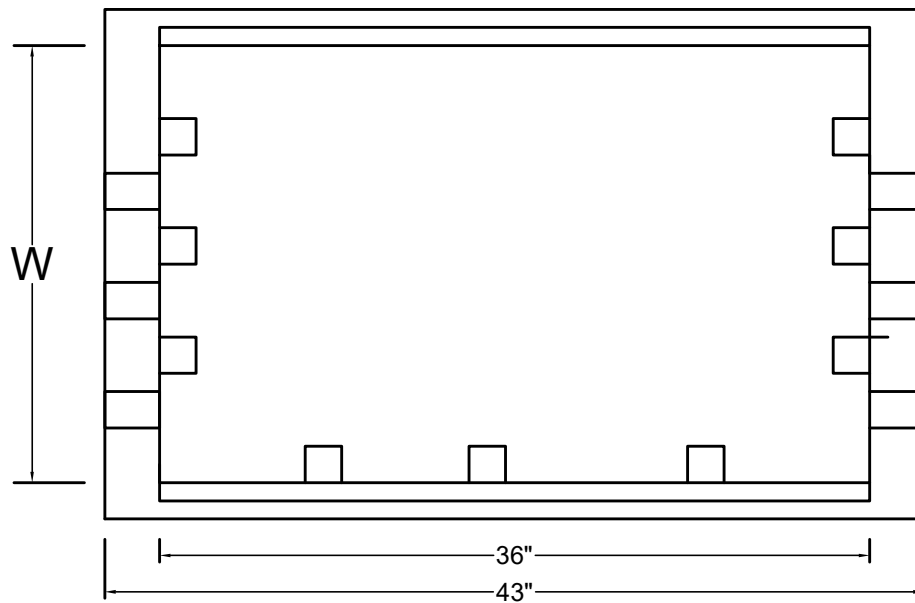
NOTES:

1. ALL PRECAST CONCRETE SHALL BE 4,000 PSI.
2. CATCH BASIN HOOD SHALL BE STAMPED WITH "DRAINS TO WATERWAYS, DO NOT DUMP".
3. CATCH BASINS SHALL BE H-20 RATED.

SECTION: STORMWATER	<p>PRECAST CONCRETE CATCH BASIN</p>	<p>PUBLIC SERVICES DEPARTMENT</p>
DATE: 2021		
DRAWN BY: JWP		<p>DETAIL NO. SW - 01</p>
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		




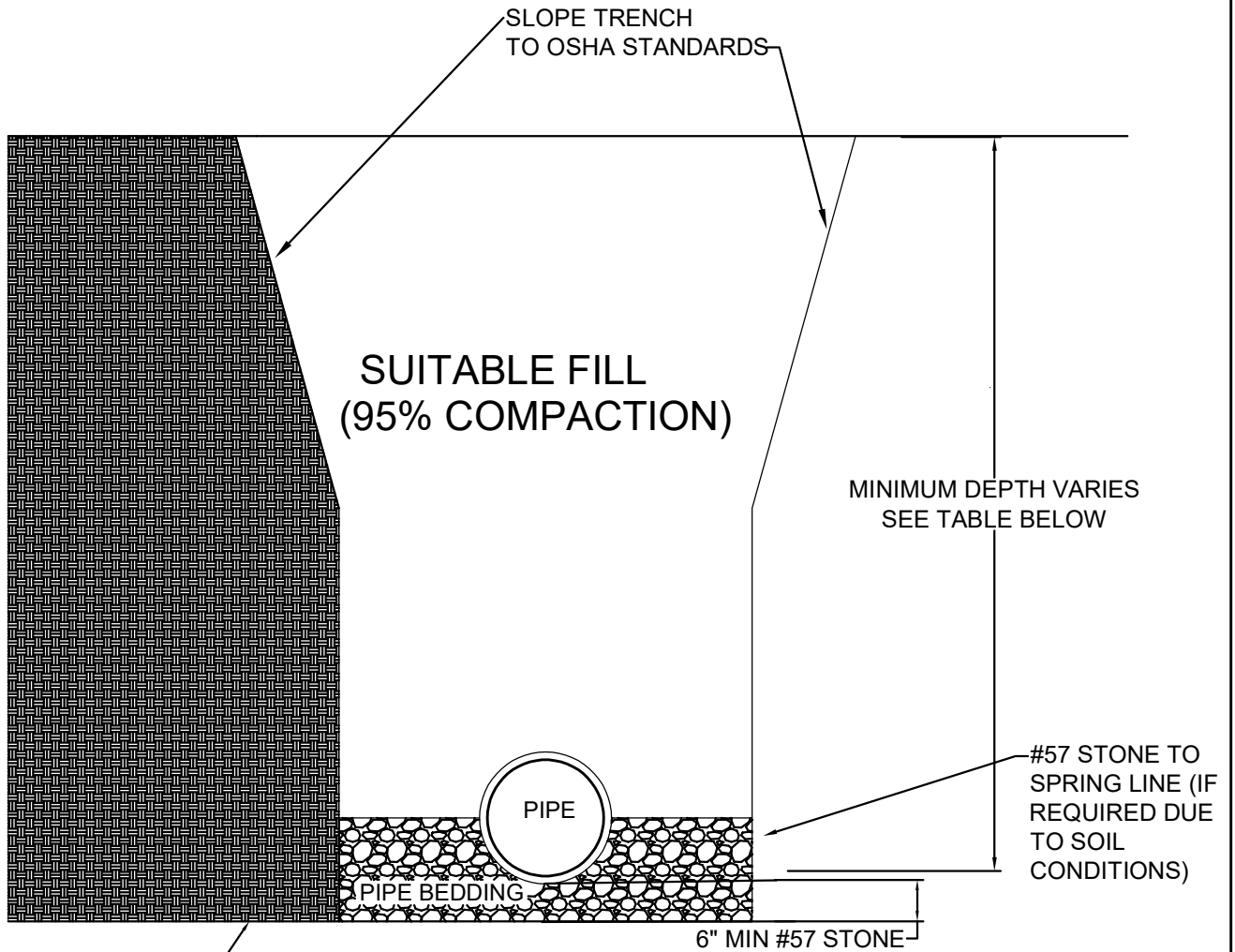
SECTION A-A



NOTES:


1. TOP OF HOOD SHOULD BE STAMPED WITH "DRAINS TO WATERWAYS, DO NOT DUMP".
2. FOR 30" VERTICAL CURB AND GUTTER, W = 27 1/4"
3. FOR 24" VERTICAL CURB AND GUTTER, W = 18.00"

SECTION: STORMWATER	36" CATCH BASIN FRAME, GRATE, AND HOOD FOR 24" AND 30" VERTICAL CURB AND GUTTER	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



COVER REQUIREMENTS FOR PIPE IN R.O.W. FROM INVERT TO SUBGRADE

PIPE SIZE (in)	COVER DEPTH (ft)
15	2.5
18	2.75
24	3.3
30	3.6
36	4.5
42	5.0
48	5.5
54	6.0
60	6.5

SECTION: STORMWATER	BEDDING FOR REINFORCED CONCRETE PIPE	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

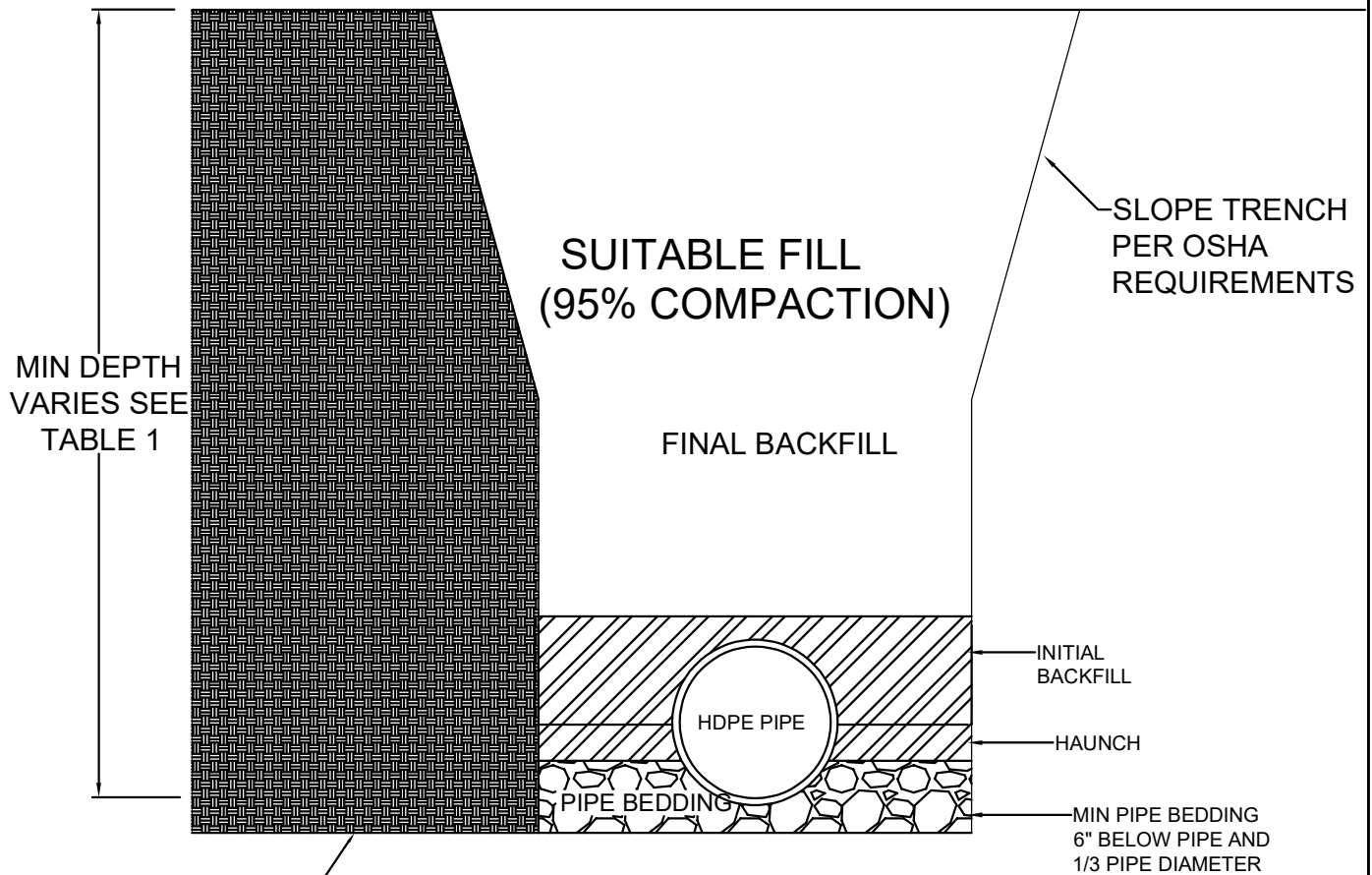



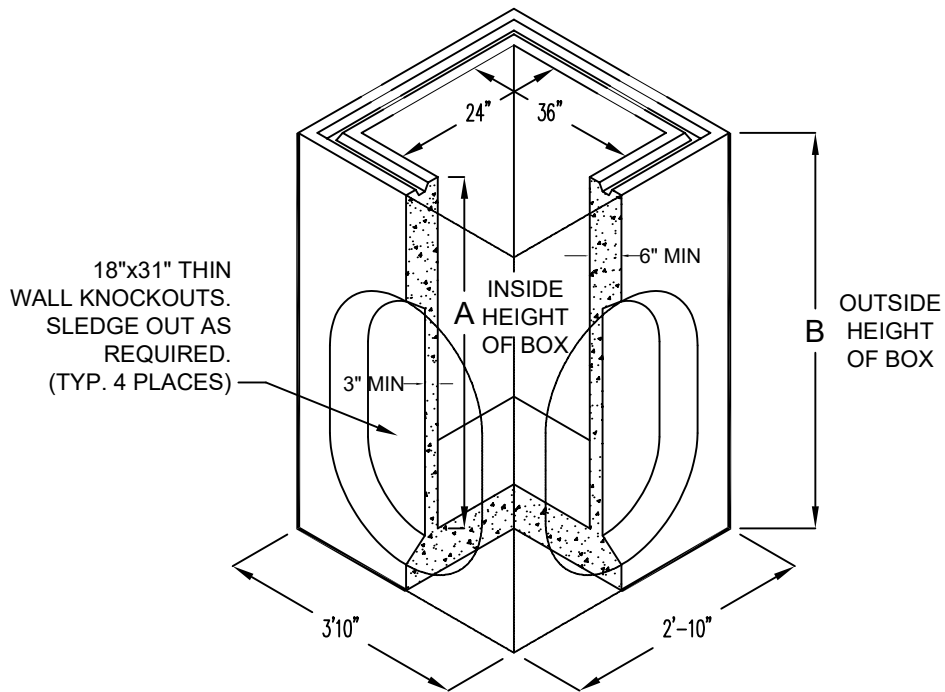
TABLE 1

COVER REQUIREMENTS FOR PIPE IN R.O.W. FROM INVERT TO SUBGRADE	
PIPE SIZE (in)	COVER DEPTH (ft)
15	2.5
18	2.75
24	3.3
30	3.6
36	4.5
42	5.0
48	5.5
54	6.0
60	6.5

NOTES:

1. HAUNCH COMPACTED IN ACCORDANCE WITH ASTM D2321
2. INITIAL BACKFILL COMPACTED TO 100% DENSITY
3. INSTALL PER HDPE PIPE MANUFACTURER'S RECOMMENDATIONS


SECTION: STORMWATER	BEDDING FOR HDPE PIPE	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. SW - 04
SCALE: NOT TO SCALE		

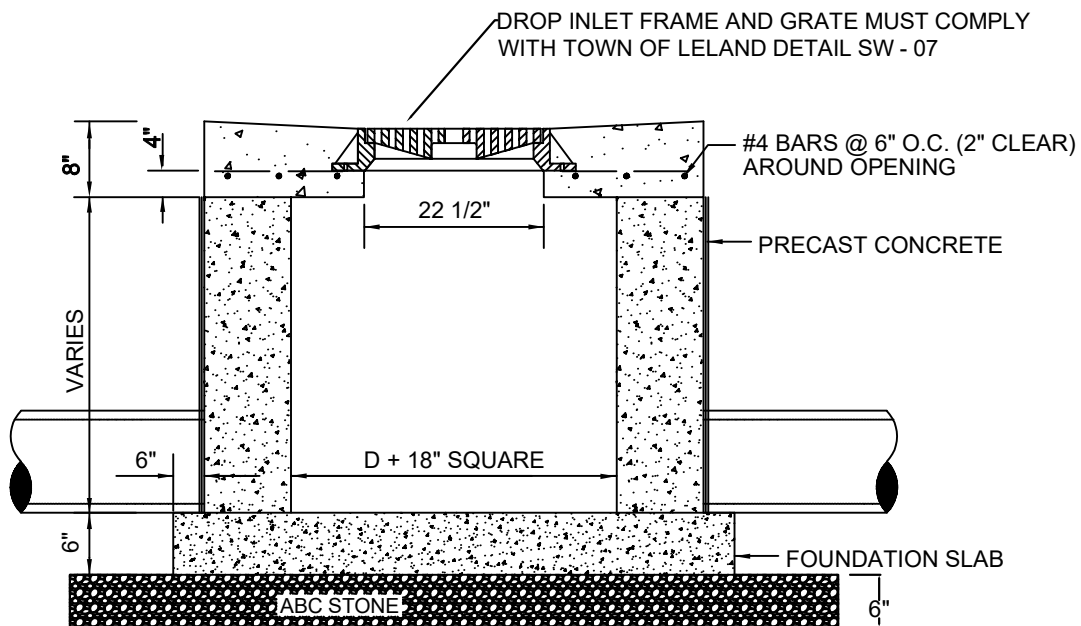


OUTSIDE HEIGHT OF THE BOX "B" SHALL RANGE FROM 3' TO 6'
 INSIDE HEIGHT OF THE BOX "A" SHALL RANGE FROM 2.5' TO 5.5'

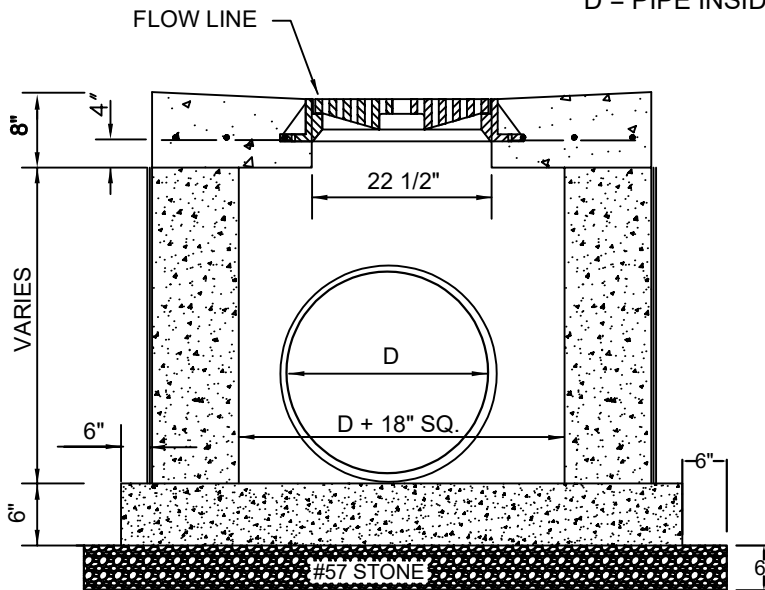
NOTES:

1. USE 4,000 PSI CONCRETE AND PROVIDE FOR H-20 LOADING.
2. PROVIDE LIFT HOLES OR PIN IN ACCORDANCE WITH OSHA STANDARDS.
3. SEAL JOINTS WITH FLEXIBLE BUTYL RUBBER BASE CONFORMING TO ASTM M-19B.
4. WAFFLE BOX SHALL HAVE A FOUNDATION OF 6" #57 STONE.
5. FOR DROP INLET FRAME AND GRATE, REFER TO DETAIL SW - 07.

SECTION: STORMWATER	24" X 36" PRECAST CONCRETE WAFFLE DROP INLET BOX WITH 4 KNOCKOUT PANELS	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		




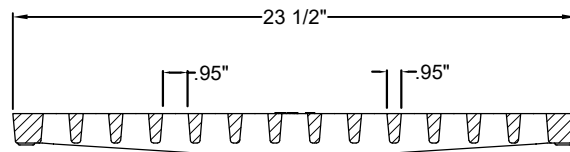
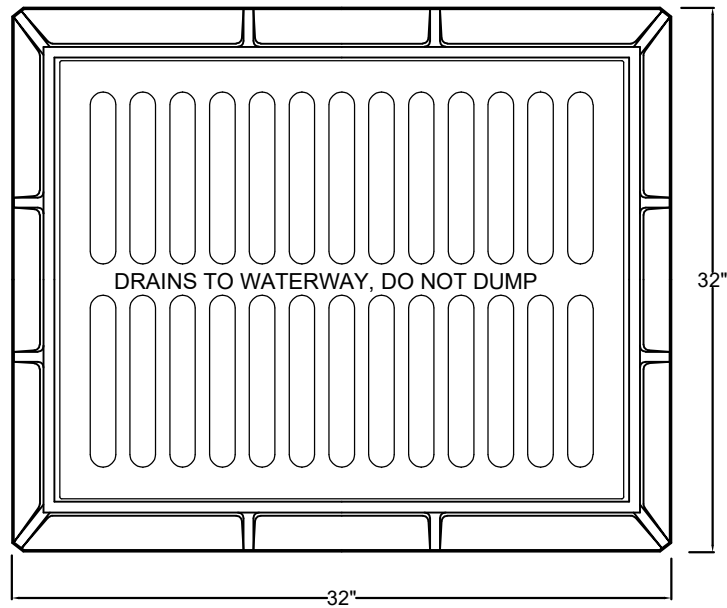
D = PIPE INSIDE DIAMETER



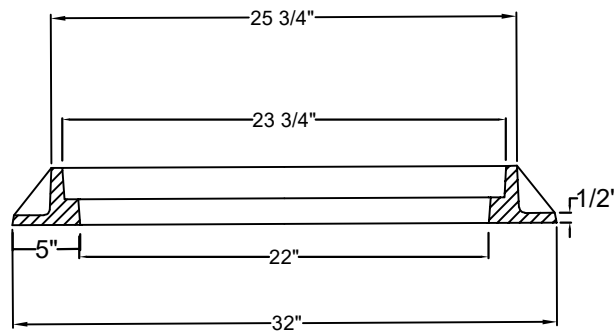
NOTES:

1. USE 4,000 PSI CONCRETE AND PROVIDE FOR H-20 LOADING.
2. PROVIDE LIFT HOLES OR PIN IN ACCORDANCE WITH OSHA STANDARDS.
3. SEAL JOINTS WITH FLEXIBLE BUTYL RUBBER BASE CONFORMING TO ASTM M-19B.


SECTION: STREETS	PRECAST CONCRETE DROP INLET BOX WITHOUT KNOCKOUT PANELS	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

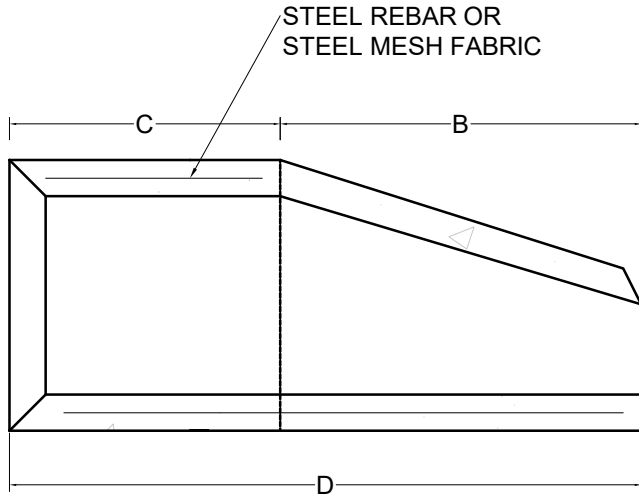
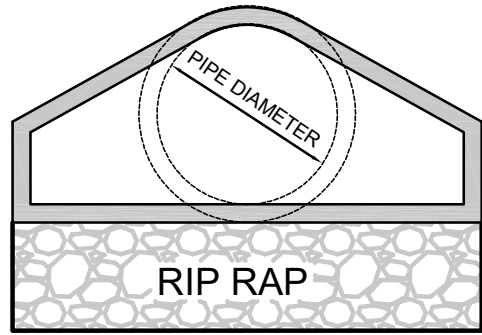
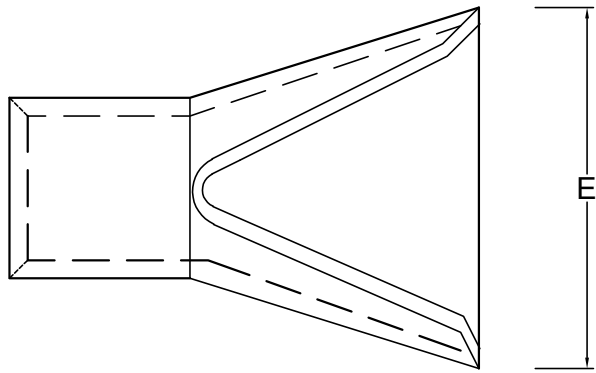


GRATE SECTION



FRAME SECTION


SECTION: STREETS	24" X 24" DROP INLET FRAME AND GRATE	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		DETAIL NO. SW - 07
SCALE: NOT TO SCALE		

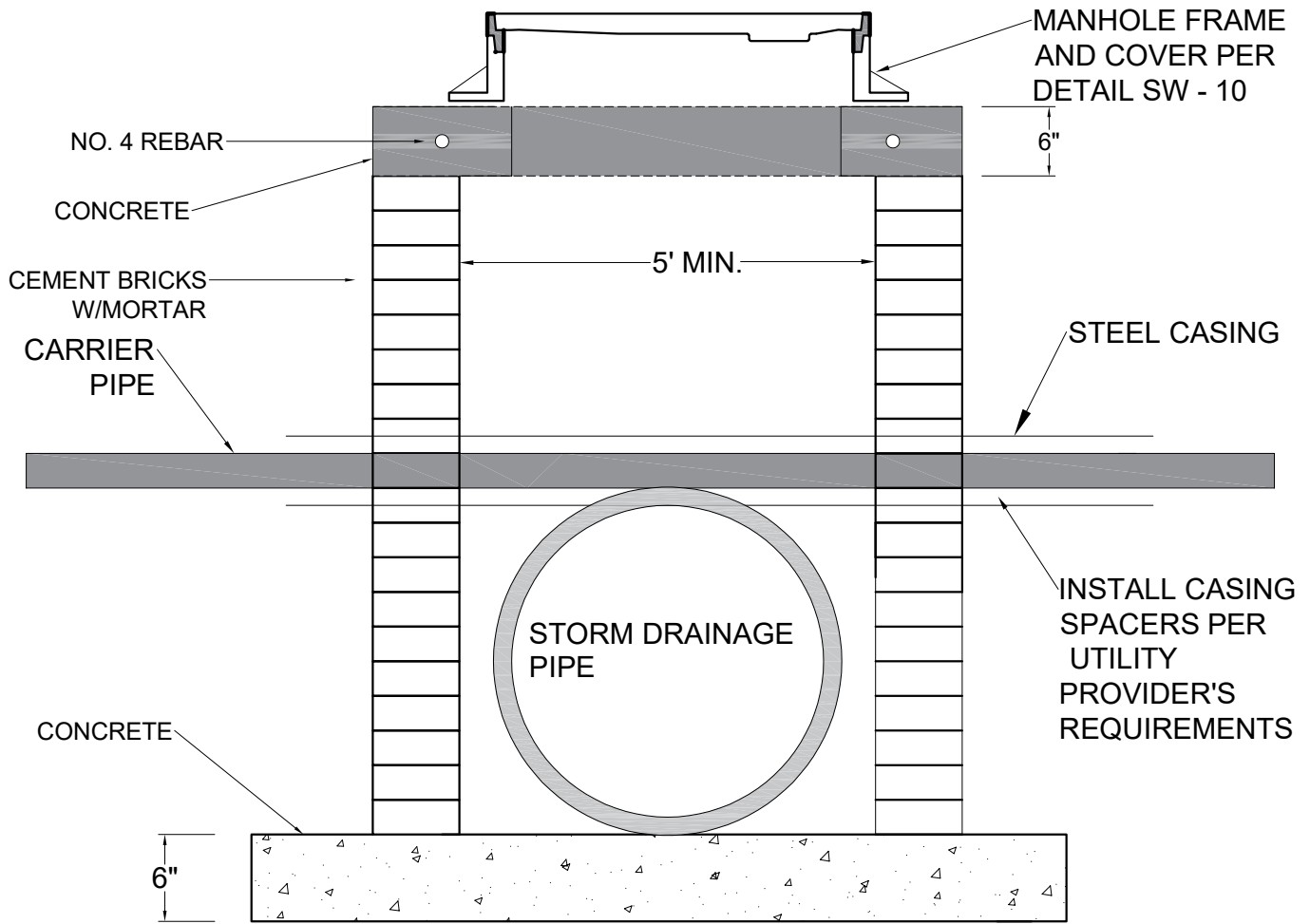


FLARED END SECTION DIMENSIONS						
PIPE INNER DIAMETER	WALL THICKNESS (INCHES)	A (INCHES)	B (INCHES)	C (INCHES)	D (INCHES)	E (INCHES)
15"	2.25	9	27.5	42.5	70	30
18"	2.5	11.5	26.5	42.5	69	36
24"	3	13	47.5	25.5	69	48
30"	3.5	16.5	54.5	14.75	69	60
36"	3.75	22	67	30	97	72
42"	6	29	67.5	25.5	93	78.5
48"	5.5	31.5	69	25	94	84

BASED ON AMERICAN CONCRETE PRODUCTS


RIP RAP DIMENSIONS WILL VARY BASED UPON ENERGY DISSIPATION CALCULATIONS.

SECTION: STORMWATER	<p>PRECAST CONCRETE FLARED END SECTION</p>	PUBLIC SERVICES DEPARTMENT
DATE: 2021		 <p>Town of Leland</p>
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



NOTES:

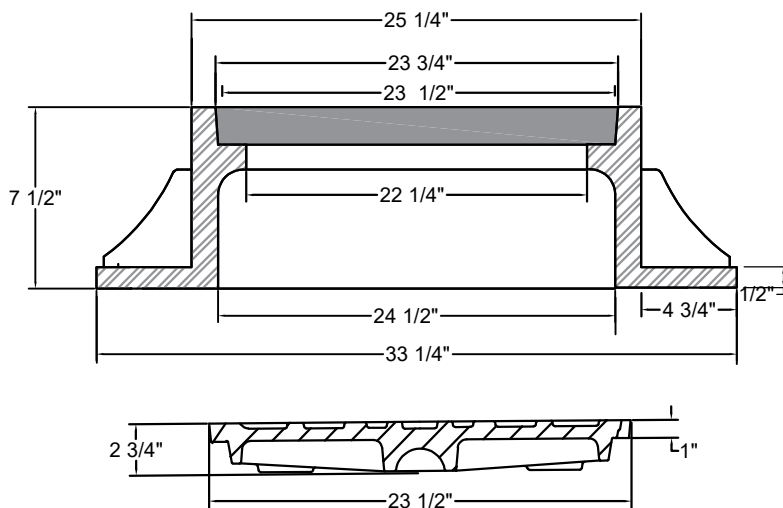
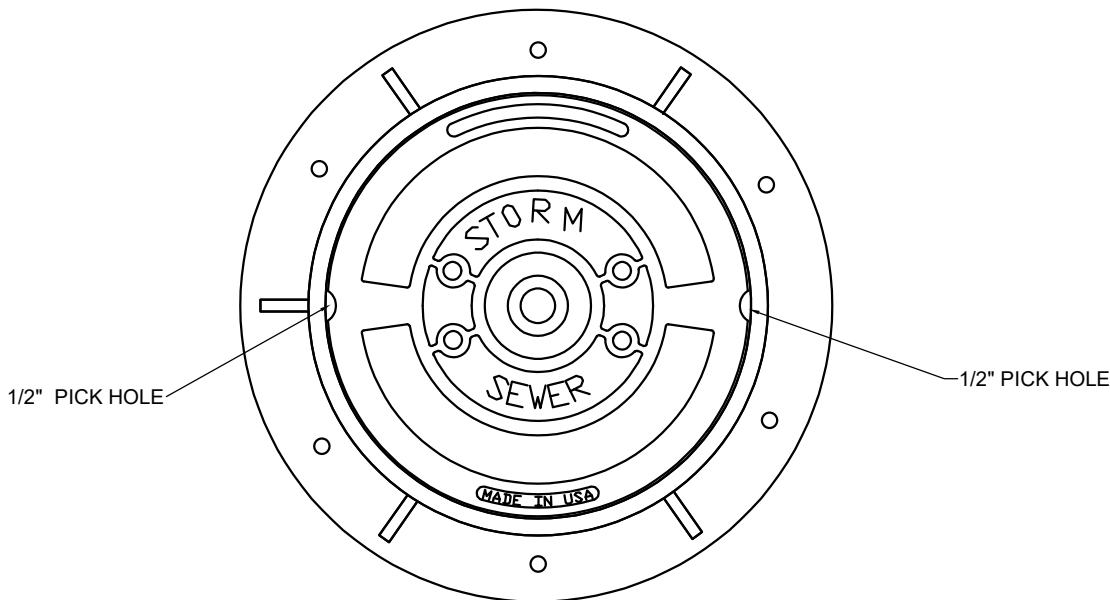
1. MANHOLE SIZE VARIES WITH THE SIZE OF THE STORM DRAINAGE PIPE
2. THE OUTSIDE OF THE STORM DRAINAGE PIPE SHALL BE AT LEAST 6" FROM THE INSIDE WALL OF THE INTERFERENCE MANHOLE.
3. THE STEEL CASING SHALL BE PLACED NO LOWER THAN THE MID-POINT OF THE STORM DRAINAGE PIPE ALLOWING WATER TO FLOW UNDER THE CARRIER PIPE.
4. CARRIER PIPE SHOULD BE CENTERED IN MANHOLE WITH NO JOINTS INSIDE THE INTERFERENCE MANHOLE
5. USE OF INTERFERENCE MANHOLE MUST BE APPROVED BY THE TOWN ENGINEER AND THE UTILITY PROVIDER.


SECTION: STORMWATER	INTERFERENCE MANHOLE	PUBLIC SERVICES DEPARTMENT
DATE: 2021		 Town of Leland
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

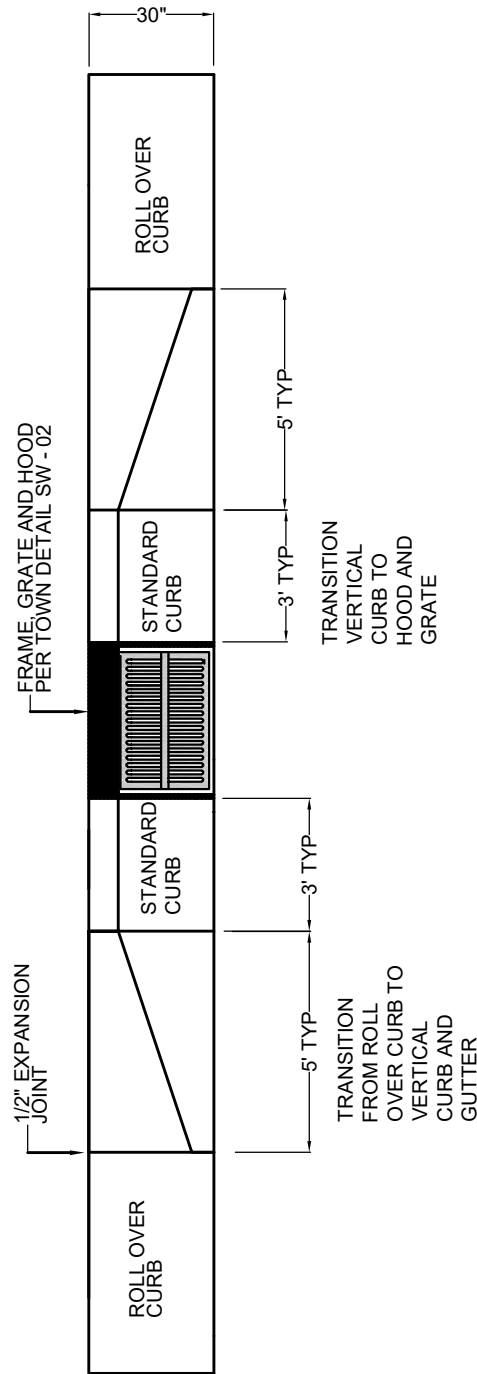
MINIMUM WEIGHTS (LBS)

FRAME 180
 COVER 120
 TOTAL 300

MANHOLE COVER TO BE STAMPED WITH
 "DRAINS TO WATERWAYS, DO NOT DUMP".



SECTION: STORMWATER	MANHOLE RING AND COVER FOR STORMWATER JUNCTION BOXES AND INTERFERENCE MANHOLES	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		DETAIL NO. SW - 10
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		



SECTION: STREETS
DATE: 2021
DRAWN BY: JWP
CHECKED BY: TOWN PSD
SCALE: NOT TO SCALE

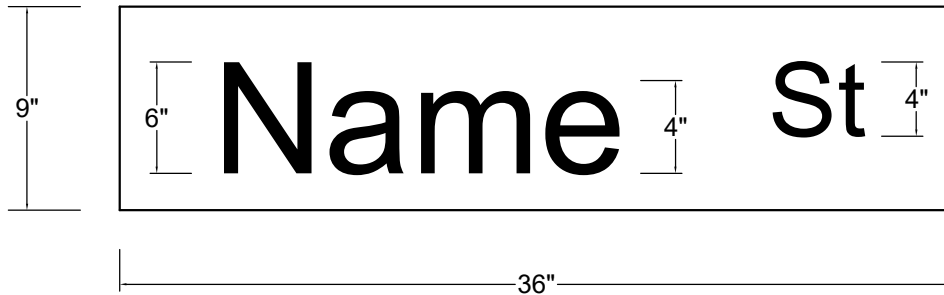
TRANSITION FROM MODIFIED VALLEY CURB AND GUTTER TO VERTICAL CURB AND GUTTER

PUBLIC SERVICES DEPARTMENT

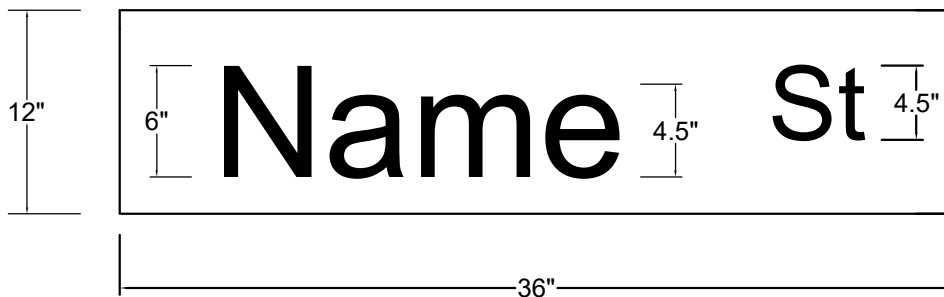


DETAIL NO. SW - 11

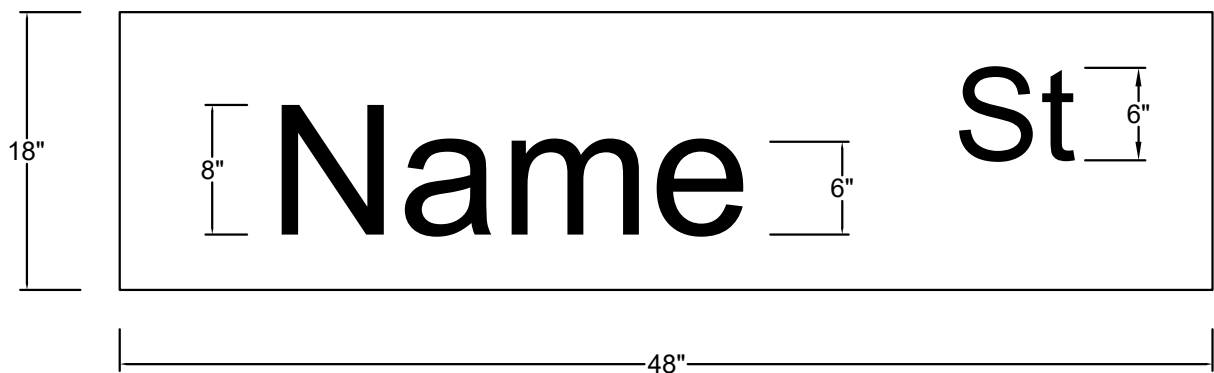
RESIDENTIAL STREET



COLLECTOR STREET




THOROUGHFARE STREET



SECTION: STREETS	POST MOUNTED STREET NAME SIGN	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

STREET NAME SIGN NOTES

1. ALL SIGN BLANKS SHALL BE ALUMINUM.
2. ALL 36" SIGN BLANKS SHALL HAVE A MINIMUM THICKNESS OF .08" OR 2.0 MM.
3. ALL 48" SIGN BLANKS SHALL HAVE A MINIMUM THICKNESS OF .13" OR 3.2 MM.
4. ALL SIGN BLANKS LENGTHS ARE MINIMUMS. LONGER SIGN BLANKS MAY BE REQUIRED BASED UPON THE LENGTH OF THE STREET NAME.
5. ALL SIGNS SHALL BE DOUBLE SIDED WITH A REFLECTIVE BACKGROUND AND WHITE REFLECTIVE LETTERS.
6. ALL SIGNS SHALL CONFORM TO THE MUTCD STANDARDS FOR REFLECTIVITY.
7. THE LETTER FONT SHALL BE TRUE TYPE OR AS APPROVED IN THE FHWA STANDARD HIGHWAY SIGNS MANUAL LATEST EDITION.
8. FOR RESIDENTIAL STREETS WITH A SPEED LIMIT >25 MPH, THE COLLECTOR STREET NAME SIGN STANDARD SHALL BE USED.

SECTION: STREETS	STREET NAME SIGN NOTES	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		

STREET NAME SIGN BRACKET
(IF APPLICABLE)

STREET NAME
SIGN (IF APPLICABLE)

STREET NAME
SIGN BRACKET
(IF APPLICABLE)

6' MIN
12' MAX

GALVANIZED
U CHANNEL POST

7'

CURB AND GUTTER

PAVEMENT

ABC STONE BASE

UNDISTURBED EARTH

2' MIN BURY

ALL SIGNS MUST MEET THE MUTCD REQUIREMENTS FOR
SIZE, HEIGHT ABOVE THE GROUND, AND REFLECTIVITY.

SECTION: STREETS

DATE: 2021

DRAWN BY: JWP

CHECKED BY: TOWN PSD

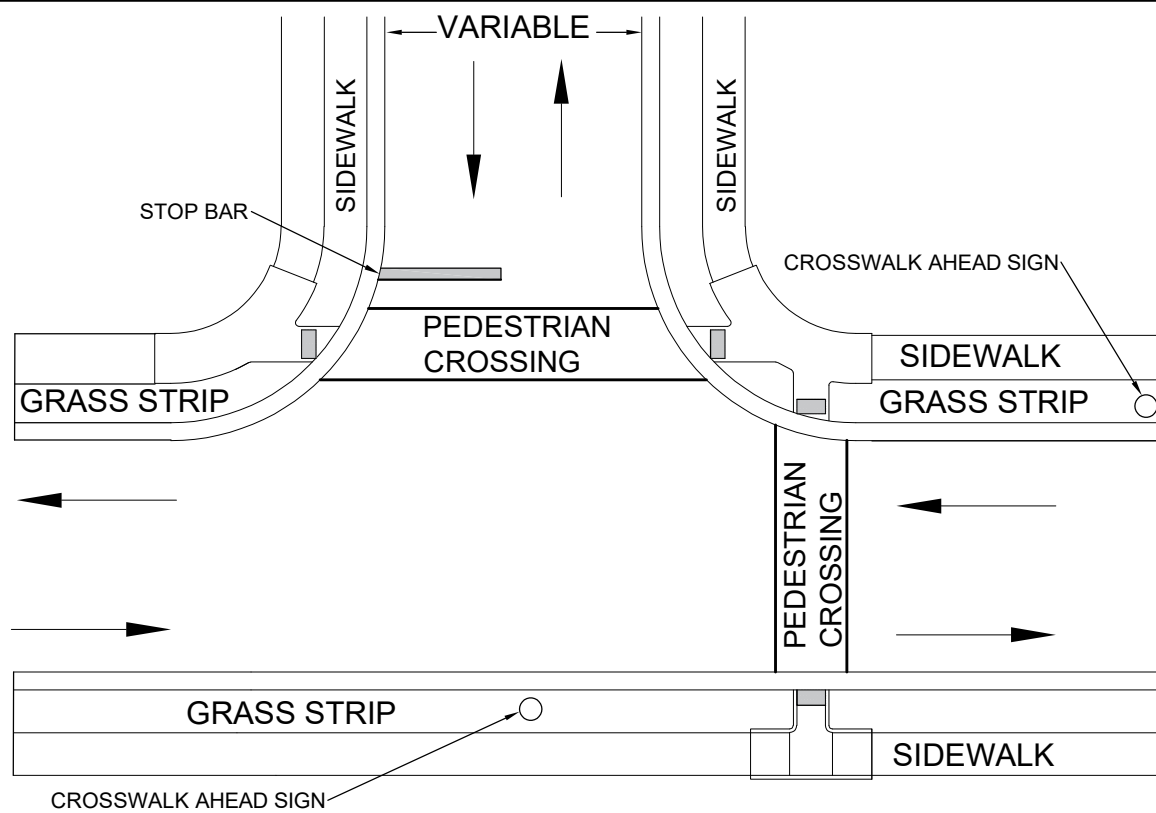
SCALE: NOT TO SCALE

SIGN LOCATION

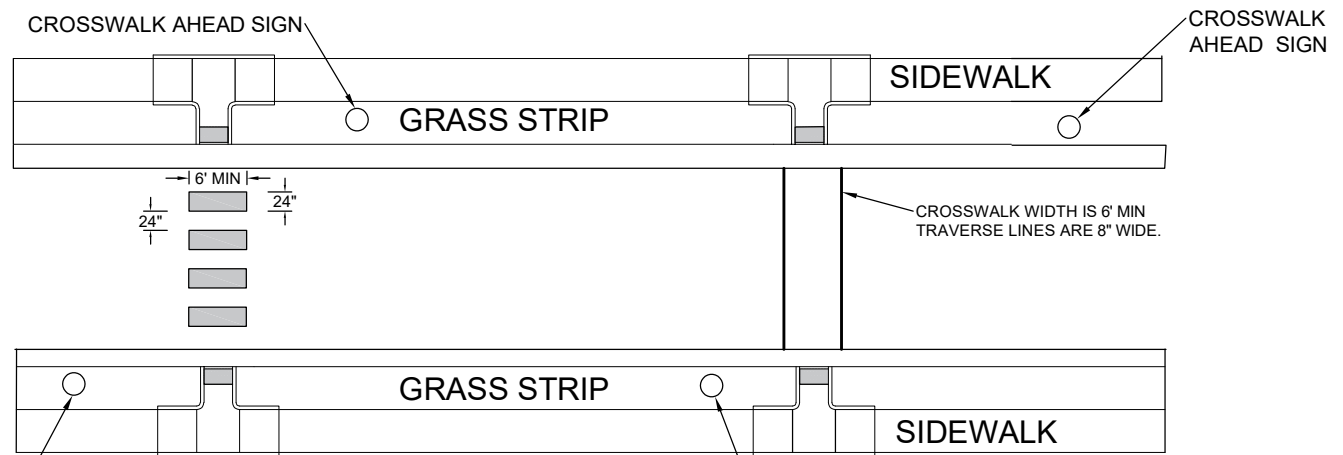
PUBLIC SERVICES
DEPARTMENT



DETAIL NO. PM - 03



INTERSECTION CROSSWALKS



MID BLOCK CROSSWALK

CROSSWALK AHEAD SIGNS SHALL MEET MUTCD REQUIREMENTS AND BE PLACED NO CLOSER THAN 100' FROM THE CROSSWALK FOR STREETS WITH A DESIGN SPEED OF 35 MPH OR LESS. FOR STREETS WITH HIGHER DESIGN SPEEDS, USE MUTCD STANDARD.

SECTION: MARKINGS
DATE: 2021
DRAWN BY: JWP
CHECKED BY: TOWN PSD
SCALE: NOT TO SCALE

CROSSWALK MARKINGS FOR INTERSECTIONS AND MID BLOCK

PUBLIC SERVICES DEPARTMENT

DETAIL NO. PM - 04

