

CHAPTER 11 – STANDARD PLANS



Standard Plans

Last Updated

Roads/Streets

R-101	Curb and Gutter Pan	9/25/25
R-102	Curbing	3/28/25
R-103	Sidewalk.....	3/28/25
R-109	Pedestrian Ramps.....	3/28/25
R-110	Type I Concrete Approach Separated Sidewalk	9/25/25
R-111	Type II Concrete Approach Separated Sidewalk.....	9/25/25
R-112	Driveway Approach Swale Inlet.....	9/25/25
R-113	Residential Concrete Approach Adjacent Sidewalk	9/25/25
R-114	Commercial Concrete Approach Adjacent Sidewalk	9/25/25
R-115	High Volume Concrete Approach	9/25/25
R-116	Rural Approach.....	9/25/25
R-117	Private Driveway or Street Access Over 75' Long.....	3/28/25
R-119	Typical Street Section Half Street	3/28/25
R-120	Typical Street Section Local Residential.....	3/28/25
R-121	Typical Street Section Local Commercial	3/28/25
R-122	Typical Street Section Collector	3/28/25
R-125	Typical Alley Section	3/28/25
R-127	Longitudinal Step Wedge Cold Joint.....	3/28/25
R-129	Type I Knuckle for Local Access Streets	3/28/25
R-130	Cul-de-Sac Public Street.....	3/28/25
R-131	Public Street Turnaround Future Intersection.....	3/28/25
R-132	Public Street Temporary Turnaround	3/28/25
R-133	Private Street and Driveway Turnarounds.....	3/28/25

R-139	Sign and Post Installation	3/28/25
R-140	Street Signs Arterial Intersections	3/28/25
R-141	Street Signs Local Intersections.....	3/28/25
R-142	Type III Barricade.....	3/28/25
R-145	Survey Monuments	3/28/25
R-150	Gated Access Requirements	3/28/25

Stormwater

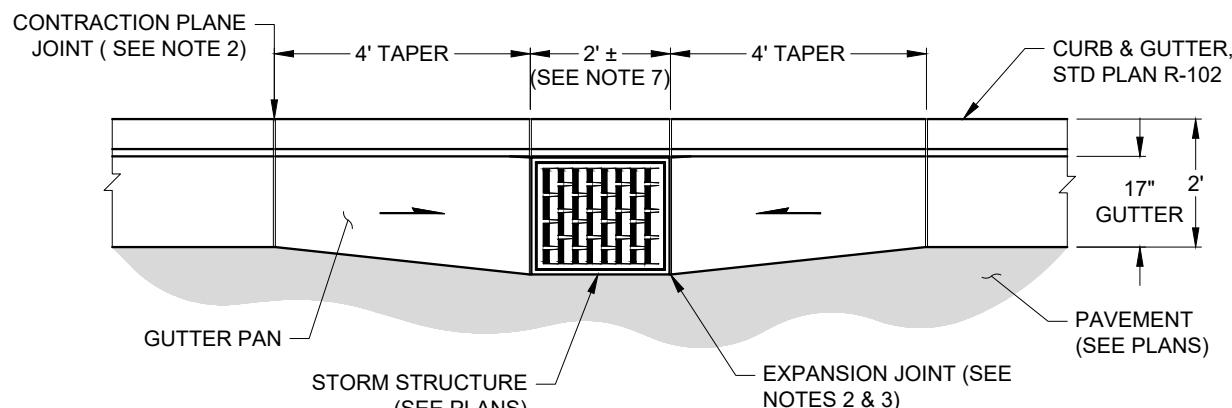
S-101	Precast Drywells Placed in Swale.....	3/28/25
S-102	Precast Drywells Placed in Asphalt.....	3/28/25
S-103	Drywell Details	3/28/25
S-104	Drywell Frame and Grates	3/28/25
S-105	Precast Risers.....	3/28/25
S-106	Utility Cover Adjustment.....	3/28/25
S-110	Curb Inlet Type 1	3/28/25
S-111	Curb Inlet Type 2	3/28/25
S-112	Catch Basin Type 1	3/28/25
S-113	Concrete Inlet Type 1	3/28/25
S-115	Combination Inlet	3/28/25
S-117	Catch Basin and Inlet Installation	3/28/25
S-119	Catch Basin Type 2 and Trap	3/28/25
S-121	Metal Grate Type 1 (Bypass).....	3/28/25
S-122	Metal Grate Type 3 (Sump)	3/28/25
S-130	Roadside Swales	3/28/25
S-140	Spill Control Separator	3/28/25

Traffic

T-101	Traffic Circle.....	3/28/25
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Utilities

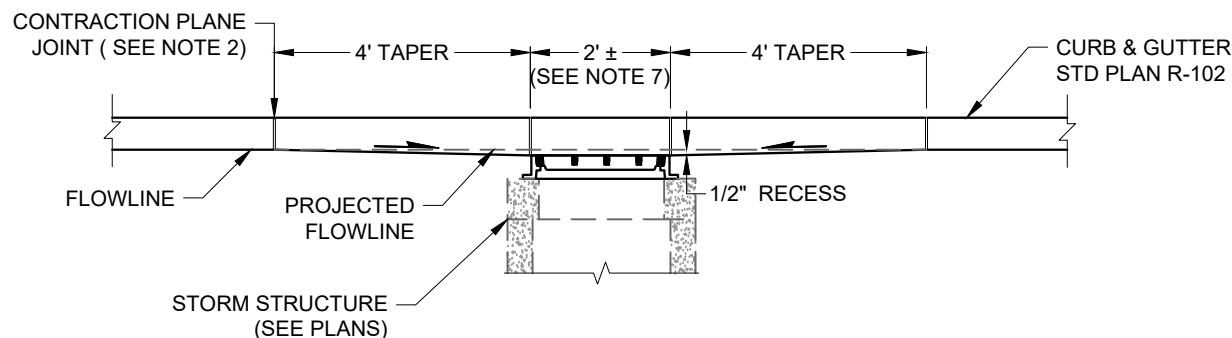
U-100	Utility Location.....	3/28/25
U-101	Above Ground Utility Locations	3/28/25
U-102	Fire Department Hydrant Requirements.....	3/28/25
U-103	Signal Pole Base at Curb Ramp.....	3/28/25



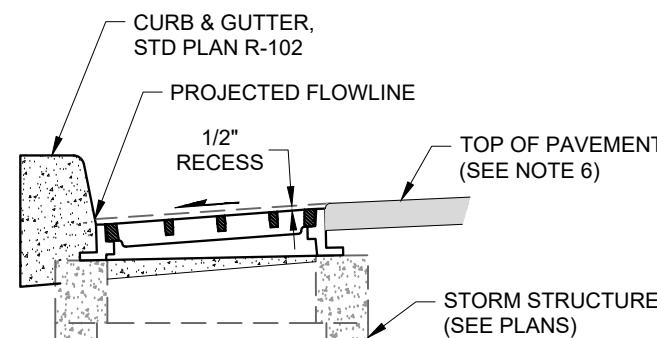
PLAN VIEW

GENERAL NOTES:

1. CEMENT CONCRETE SHALL BE CLASS 4,000 CONCRETE PER SECTION 6-02 OF THE WSDOT STANDARD SPECIFICATIONS.
2. CONTRACTION PLANE JOINTS FOR CEMENT CONCRETE SHALL BE PLACED AT 2 TIMES SIDEWALK WIDTH OR 10' MAXIMUM AND SHALL MATCH SCORES IN SIDEWALK WHERE APPLICABLE.
3. 3/8" EXPANSION MATERIAL SHALL BE PLACED AT ANY STRUCTURE. MAXIMUM 100' SPACING. EXPANSION JOINT SHALL EXTEND THE FULL CONCRETE DEPTH.
4. SUBGRADE AND CTC UNDER ALL CURBING SHALL BE COMPAKTED TO 95%.
5. EXCEPT FOR JOINTS AND BROOM FINISHING, NO OTHER MARKINGS ARE PERMITTED ON THE FINISHED SURFACE.
6. MAINTAIN CONSISTENT CROSS SLOPE TO STRUCTURE.
7. IF STORM STRUCTURE REQUIRES A HOODED GRATE SEE STANDARD PLAN S-115 FOR ADDITIONAL INFORMATION.
8. COORDINATE WITH ENGINEER FOR OTHER STRUCTURE TYPES THAT MAY REQUIRE A LONGER TAPER.



ELEVATION VIEW



PAVEMENT EDGE DETAIL

PAGE 1 OF 1



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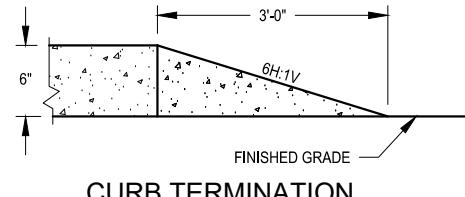
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CURB AND
GUTTER PAN

STANDARD PLAN NO.
R-101

PUBLICATION DATE: 09/2025

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CURB TERMINATION
(SEE NOTE 6)



CONTRACTION PLANE
JOINT (SEE NOTE 2)

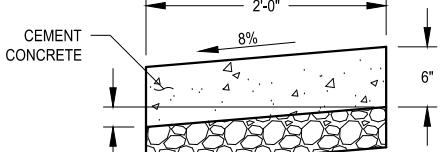


R=1" (TYP)
1'-5/16"

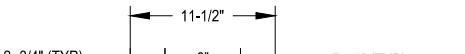


2" RISE
1'-5/16"

TYPE "B"
QUANTITY = 0.048 CY / LF



TYPE "S"
QUANTITY = 0.037 CY / LF (SEE NOTES 4 & 8)



2-3/4" (TYP)
11-1/2"

R=1" (TYP)



LANE EDGE
4"

ASPHALT
PAVEMENT

6" (MIN) OR MATCH
STREET SECTION
(SEE NOTE 5)

TYPE "A"

QUANTITY = 0.036 CY / LF (SEE NOTE 4)

TYPE "C"

QUANTITY = 0.023 TONS / LF (SEE NOTE 4)

GENERAL NOTES:

1. CEMENT CONCRETE SHALL BE CLASS 4,000 CONCRETE PER SECTION 6-02 OF THE WSDOT STANDARD SPECIFICATIONS.
2. CONTRACTION PLANE JOINTS FOR CEMENT CONCRETE SHALL BE PLACED AT 2 TIMES SIDEWALK WIDTH OR 10' MAXIMUM AND SHALL MATCH SCORES IN SIDEWALK WHERE APPLICABLE.
3. 3/8" EXPANSION MATERIAL SHALL BE PLACED AT ALL CURB RETURNS AND AT ANY STRUCTURE. MAXIMUM 100' SPACING. EXPANSION JOINT SHALL EXTEND THE FULL CONCRETE DEPTH.
4. TYPES A, C, R AND S CURBS TO BE USED ONLY IN SPECIAL CASES WITH APPROVAL OF THE CITY ENGINEER.
5. SUBGRADE AND CSTC UNDER ALL CURBING SHALL BE COMPAKTED TO 95%.
6. TRANSITION CURB END TO FINISHED GRADE BY SLOPING TOP OF CURB @ 6H:1V.
7. FOR "SPILL" CURB APPLICATIONS, GUTTER SHALL SLOPE AWAY FROM CURB AT 2%.
8. PROVIDE TYPE 1 INLETS AT LOW POINTS SIMILAR TO STANDARD PLAN S-110 AND SPOKANE REGIONAL STORMWATER MANUAL.
9. PEDESTRIAN CURB TO BE USED ONLY AT PEDESTRIAN CURB RAMPS AND LANDINGS.
10. ALL BROKEN, CRACKED, HEAVED, AND SUNKEN CURB SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.
11. EXCEPT FOR JOINTS AND BROOM FINISHING, NO OTHER MARKINGS ARE PERMITTED ON THE FINISHED SURFACE.
12. NO NEW UTILITY COVERS, BOXES, LIDS, OTHER THAN STORM STRUCTURES SHALL BE LOCATED WITHIN THE CURB AND GUTTER.



TYPE "R"
QUANTITY = 0.042 CY / LF (SEE NOTE 4)



TYPE "R"
QUANTITY = 0.042 CY / LF (SEE NOTE 4)



PEDESTRIAN RAMP CURB
(SEE NOTE 9)



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CURBING

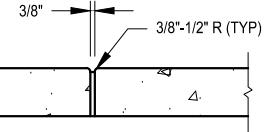
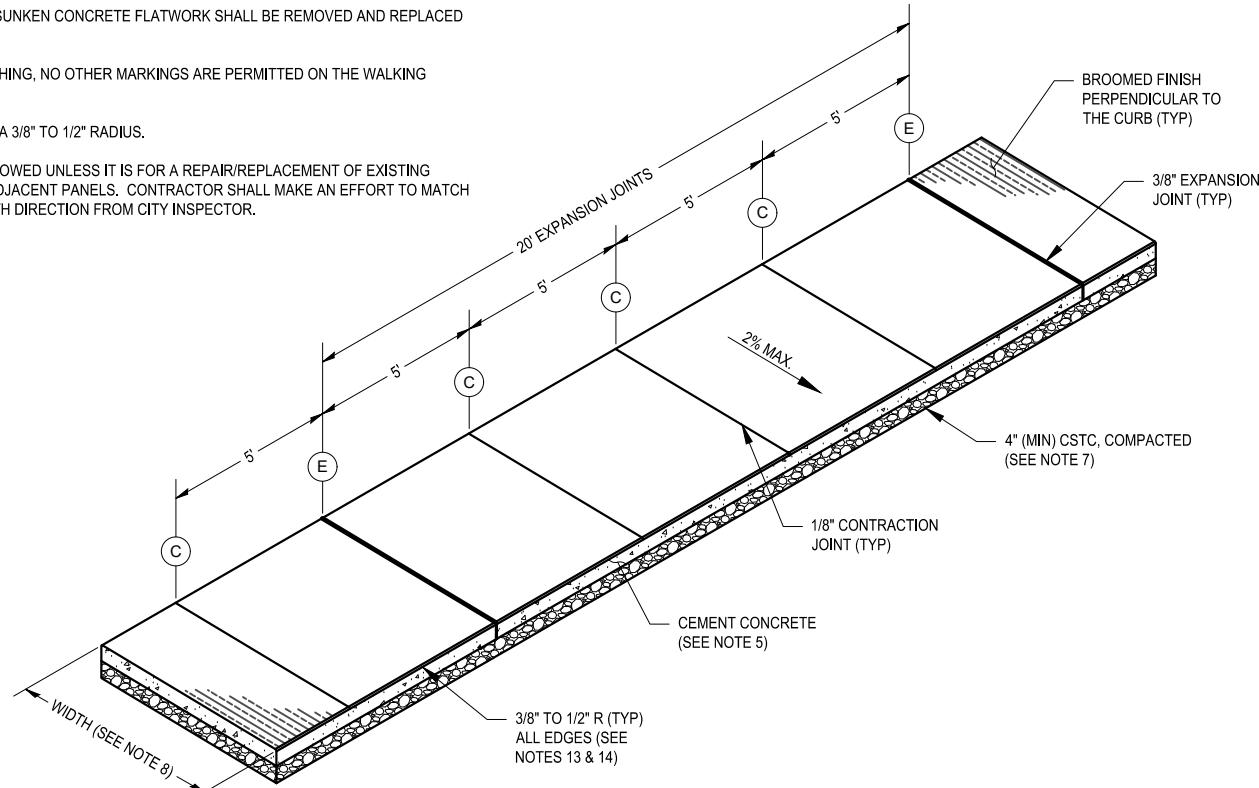
STANDARD PLAN NO.
R-102

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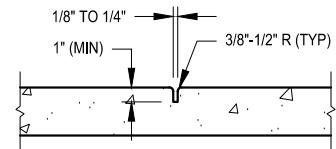
REVISION NO.: 02

GENERAL NOTES:

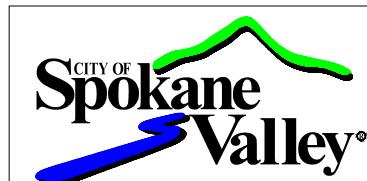
1. CONTRACTION JOINTS SHALL BE PLACED EVERY 5' AND MATCH CURB JOINTS WHEN ADJACENT TO CURB.
2. 3/8" EXPANSION JOINTS SHALL BE PLACED EVERY 20' WITH FELT EXPANSION MATERIAL EXTENDING THE FULL SIDEWALK DEPTH.
3. 3/8" EXPANSION MATERIAL SHALL BE REQUIRED BETWEEN SIDEWALK AND DRIVEWAYS AND/OR DRIVEWAY APPROACH. EXPANSION JOINT MATERIAL SHALL BE SECURED IN PLACE PRIOR TO CONCRETE PLACEMENT AND SHALL COMPLETELY SEPARATE ADJACENT SLABS EXTENDING FROM THE SURFACE TO GRAVEL BASE. PLACEMENT OF EXPANSION JOINT MATERIAL SHALL NOT BE FLOATED OR PRESSED INTO WET CONCRETE AFTER CONCRETE HAS BEEN PLACED.
4. SIDEWALK SHALL SLOPE TOWARDS THE CURB AT 1% TO 2% MAX.
5. SIDEWALKS SHALL BE 6 INCHES IN DEPTH WITHIN CURB RETURNS OF ALL INTERSECTIONS CLASSIFIED AS ARTERIALS OR COLLECTORS. SIDEWALKS SHALL BE 6 INCHES IN DEPTH AS PART OF A DRIVEWAY. SIDEWALKS SHALL BE A MINIMUM OF 4 INCHES IN DEPTH AT ALL OTHER LOCATIONS.
6. STREET SIDE TOP OF WALK SHALL BE LEVEL WITH TOP OF CURB. WHERE TYPE 'S' CURBING IS USED WITH SEPARATED SIDEWALKS AND SWALES, THE STREET SIDE TOP OF WALK SHALL BE SET LEVEL WITH THE STREET SIDE TOP OF TYPE 'S' CURB.
7. SUBGRADE AND CSTM UNDER ALL SIDEWALKS SHALL BE COMPAKTED TO 95%.
8. REFER TO TABLES 7.2 & 7.3 IN THE SPOKANE VALLEY STREET STANDARDS FOR SIDEWALK WIDTH.
9. MAXIMUM LONGITUDINAL GRADE OF SIDEWALK IS 5% OR MATCH STREET GRADE, IF ADJACENT.
10. CEMENT CONCRETE SHALL BE CLASS 4,000 CONCRETE PER SECTION 6-02 OF THE WSDOT STANDARD SPECIFICATIONS.
11. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE FLATWORK SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.
12. EXCEPT FOR JOINTS AND BROOM FINISHING, NO OTHER MARKINGS ARE PERMITTED ON THE WALKING SURFACE.
13. ALL PANEL SHALL BE TROWELED WITH A 3/8" TO 1/2" RADIUS.
14. PERIMETER EDGING SHALL NOT BE ALLOWED UNLESS IT IS FOR A REPAIR/REPLACEMENT OF EXISTING PANELS AND ONLY WHEN MATCHING ADJACENT PANELS. CONTRACTOR SHALL MAKE AN EFFORT TO MATCH EXISTING PANELS IN ACCORDANCE WITH DIRECTION FROM CITY INSPECTOR.



E EXPANSION JOINT DETAIL



C CONTRACTION JOINT DETAIL



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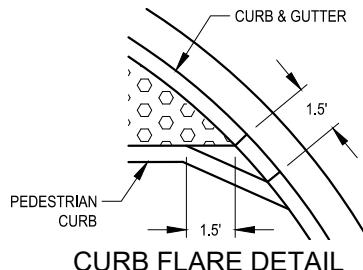
SIDEWALK

STANDARD PLAN NO.
R-103

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GENERAL NOTES:

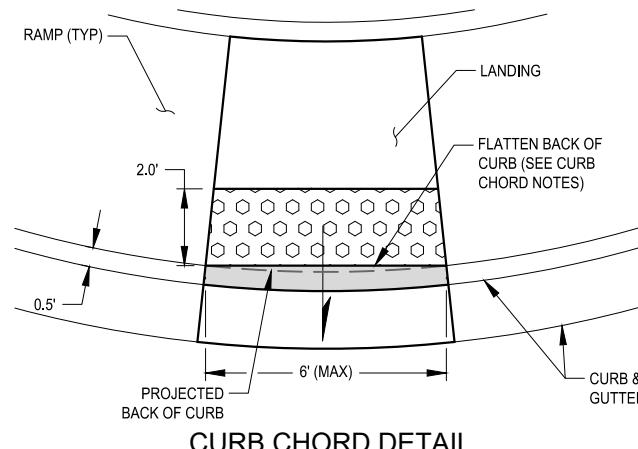
1. CURB RAMPS AND RELATED INFRASTRUCTURE SHALL CONFORM WITH THE CURRENT AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN GUIDELINES.
2. THE LONGITUDINAL SLOPE OF THE CROSSWALK (MARKED OR UNMARKED) SHALL NOT EXCEED 5%. THE CROSS SLOPE SHALL BE 2% MAXIMUM UNLESS CONTAINED IN A STREET WITHOUT YIELD OR STOP CONTROL, THEN MAXIMUM CROSS SLOPE IS 5%.
3. THE LONGITUDINAL SLOPE OF THE CURB RAMP SHALL BE 0.5% MINIMUM AND 8.33% MAXIMUM, BUT THE RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET. IF THE RAMPS MAXIMUM LENGTH OF 15 FEET IS APPLYING, THE LONGITUDINAL SLOPE IS ALLOWED TO EXCEED 8.33%. THE MAXIMUM CROSS SLOPE SHALL BE 2%.
4. LANDINGS SHALL PROVIDE A 4-FOOT x 5-FOOT TURNING SPACE WITH A 0.5% TO 2.0% SLOPE IN EACH DIRECTION. TURNING SPACES MAY OVERLAP WITH OTHER TURNING SPACES AND CLEAR SPACES.
5. MAXIMUM SLOPES ARE STRICTLY ENFORCED. EXCEEDING THE MAXIMUM SLOPES WILL REQUIRE REMOVAL AND RECONSTRUCTION
6. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.
7. VERTICAL SURFACE DISCONTINUITIES SHALL BE 1/2" MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 1/4" TO 1/2" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2H:1V.
8. GRADE BREAKS SHALL NOT BE ALLOWED ON THE SURFACE OF CURB RAMPS OR LANDINGS. GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
9. DRAINAGE STRUCTURES, JUNCTIONS BOXES, OR OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN FRONT OF RAMPS
10. CEMENT CONCRETE SHALL BE CLASS 4,000 CONCRETE PER SECTION 6-02 OF THE WSDOT STANDARD SPECIFICATIONS.
11. PEDESTRIAN RAMPS, LANDINGS AND SIDEWALK ADJACENT TO THE CURB SHALL BE 6" THICK WHEN LOCATED WITHIN CURB RETURN.
12. SUBGRADE AND CTC UNDER ALL RAMPS SHALL BE COMPACTED TO 95%.
13. ALL PANEL EDGES SHALL BE TROWELED WITH 3/8" TO 1/2" RADIUS.
14. PERIMETER EDGING SHALL NOT BE ALLOWED UNLESS IT IS FOR A REPAIR/REPLACEMENT OF EXISTING PANELS AND ONLY WHEN MATCHING ADJACENT PANELS. CONTRACTOR SHALL MAKE AN EFFORT TO MATCH EXISTING PANELS IN ACCORDANCE WITH DIRECTION FROM CITY INSPECTOR.



15. EXCEPT FOR JOINTS AND BROOM FINISHING, NO OTHER MARKINGS ARE PERMITTED ON THE WALKING SURFACE.
16. PEDESTRIAN CURB MAY BE OMITTED IF THE GROUND SURFACE AT THE BACK OF THE CURB RAMP AND/OR LANDING WILL BE AT THE SAME ELEVATION AS THE CURB RAMP OR LANDING AND THERE WILL NOT BE MATERIAL TO RETAIN.
17. PROVIDE FLARED SIDES ON PERPENDICULAR OR COMBINATION CURB RAMPS WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE RAMP. THE FLARED SIDES ARE PART OF THE PEDESTRIAN CIRCULATION PATH, BUT ARE NOT PART OF THE PEDESTRIAN ACCESS ROUTE. THE SLOPE OF THE FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE. FLARED SIDES ARE NOT NEEDED OR MAY BE STEPPER WHEN THE PEDESTRIAN CIRCULATION PATH DOES NOT CROSS THE RAMP.
18. DETECTABLE WARNING SURFACES SHALL BE FEDERAL YELLOW IN COLOR. DETECTABLE WARNING SURFACES SHALL BE CAST IN PLACE OR LIQUID APPLIED.
19. DETECTABLE WARNING SURFACES SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE RAMP, LANDING OR OTHER ROADWAY ENTRANCE.
20. THE SIZE AND SPACING OF TRUNCATED DOMES SHALL BE PER WSDOT STANDARD PLAN F-45.10
21. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PARALLEL TO THE DIRECTION OF TRAVEL AND PERPENDICULAR TO THE GRADE BREAK AT THE BACK OF CURB.
22. WHEN THE GRADE BREAK BETWEEN THE CURB RAMP AND THE LANDING IS LESS THAN OR EQUAL TO 5 FEET FROM THE BACK OF CURB AT ALL POINTS, PLACE THE DETECTABLE WARNING SURFACE ON THE BOTTOM OF THE CURB RAMP DIRECTLY ABOVE THE GRADE BREAK.

CURB CHORD NOTES:

1. DETECTABLE WARNING SURFACE SHALL BE PLACED ADJACENT TO THE BACK OF CURB AND WITH NO MORE THAN A 2 INCH GAP BETWEEN THE DWS AND THE BACK OF CURB.
2. FOR RAMPS LOCATED WITHIN A CURB RETURN AND WIDER THAN 6 FEET THE DETECTABLE WARNING SURFACES MUST BE LIQUID APPLIED.
3. FOR RAMPS LOCATED WITHIN LARGER CURB RETURNS (>20FT RADIUS) AND 6 FEET IN WIDTH OR LESS, THE BACK OF CURB MAY BE CONSTRUCTED AS A CHORD/STRAIGHT LINE TO ADHERE TO THE 2 INCH GAP REQUIREMENT.



RAMP REQUIREMENTS

	RECOMMENDED	MINIMUM	MAXIMUM
FLARED SIDE SLOPE (%)	9.5	0.5	10
FLARED SIDE LENGTH (FT)		5	15
RAMP SLOPE (%)	7	0.5	8.33*
RAMP CROSS SLOPE (%)	1	0.5	2*
RAMP LENGTH (FT)		6	15
RAMP WIDTH (FT)		4	-
LANDING WIDTH (FT)		5'	-
LANDING SLOPE (%)	1	0.5	2*
GUTTER SLOPE (%)	4	2	5
CHANGE IN LEVEL (IN)	FLUSH		0.5", SEE NOTE 2

*ADA REQUIREMENT

PAGE 1 OF 5



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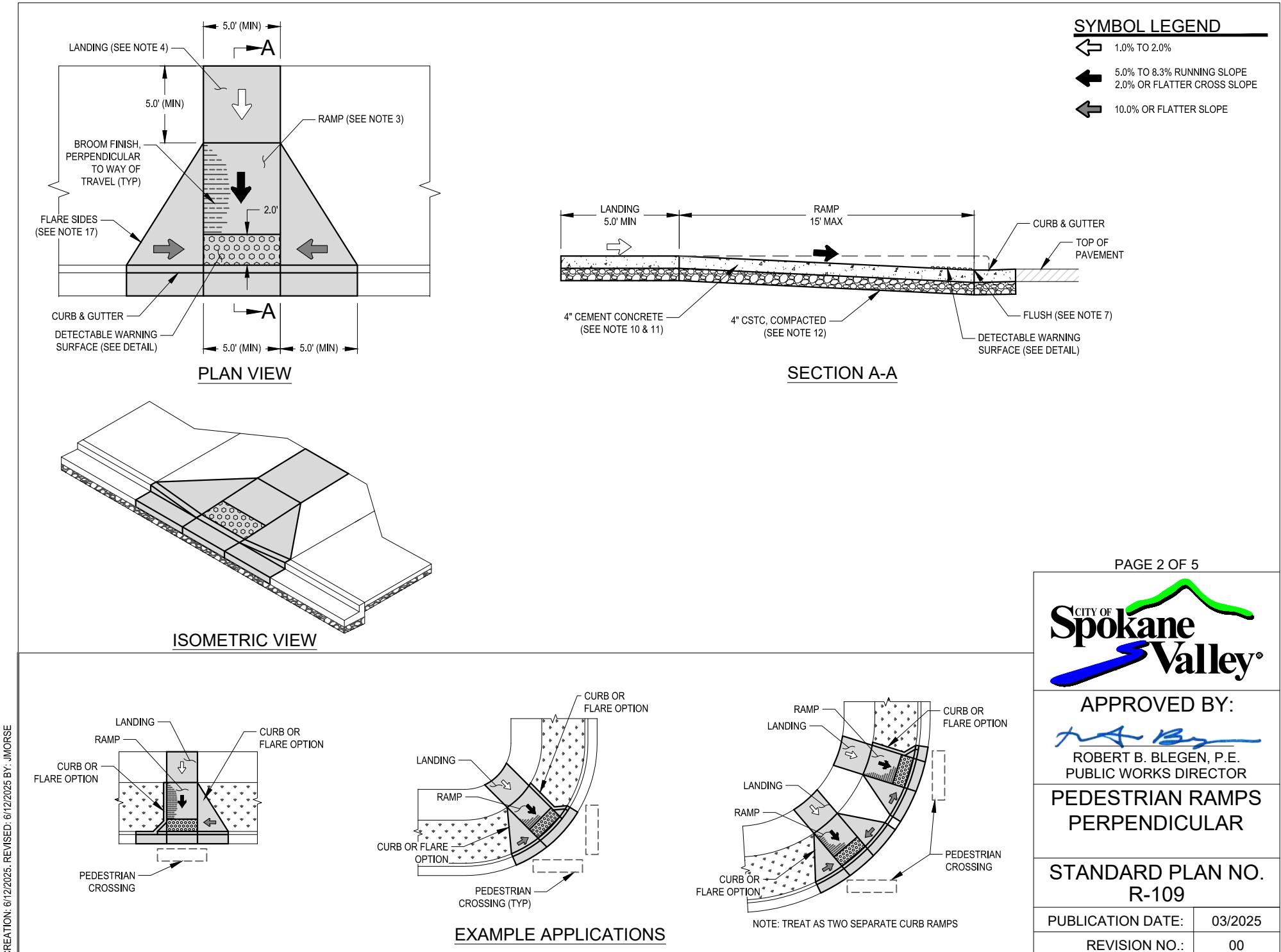
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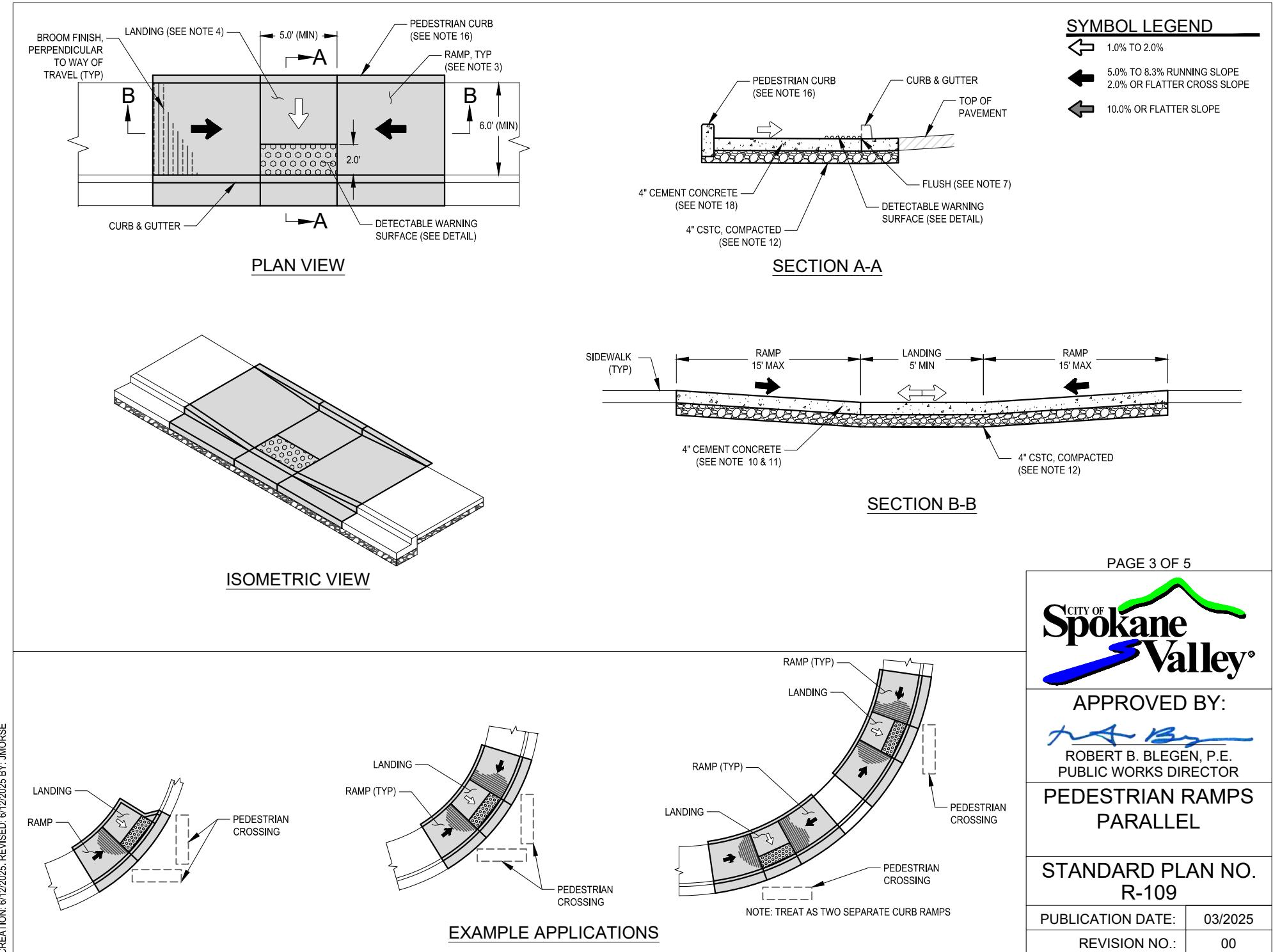
PEDESTRIAN RAMPS
NOTES AND DETAILS

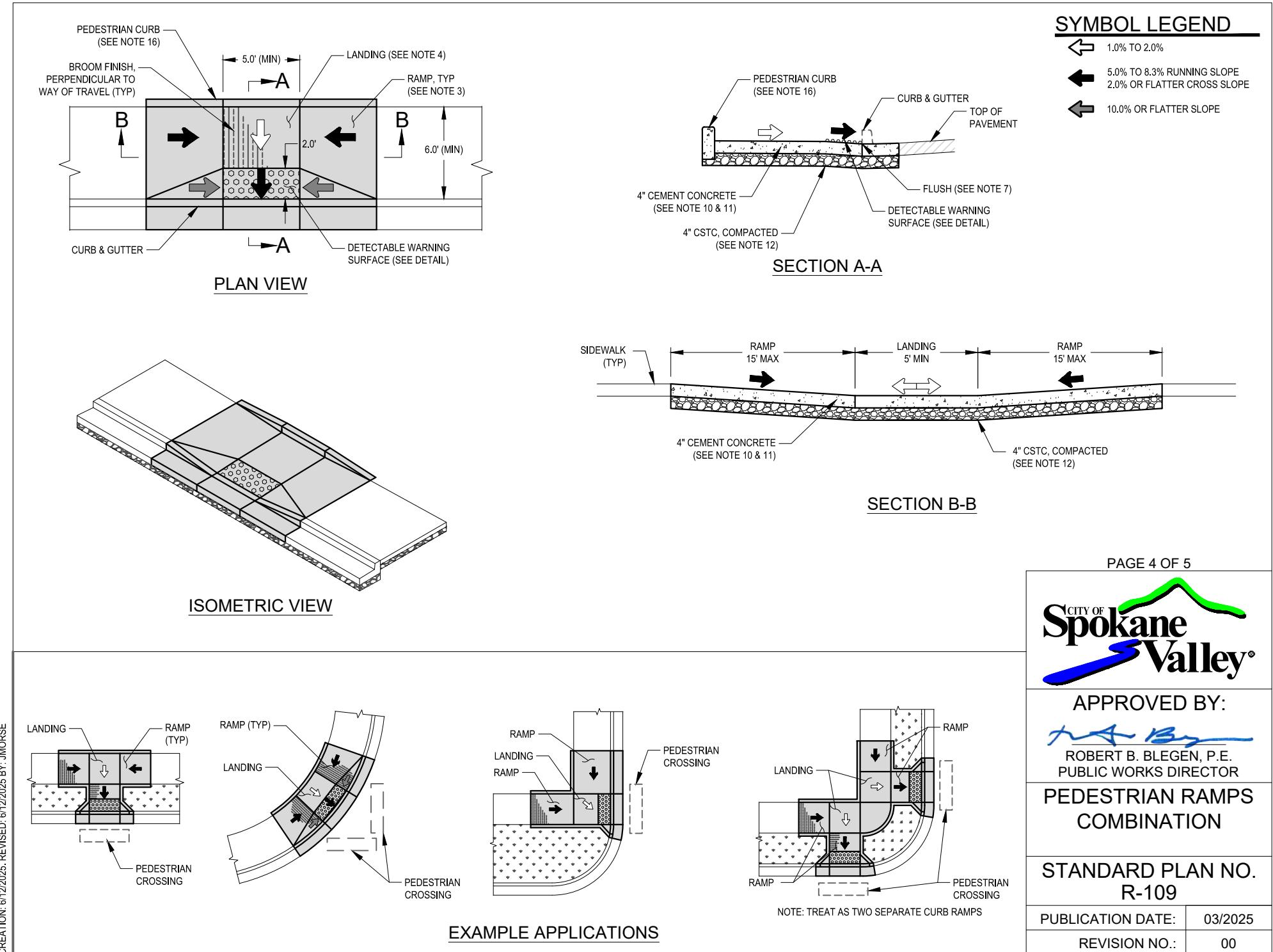
STANDARD PLAN NO.
R-109

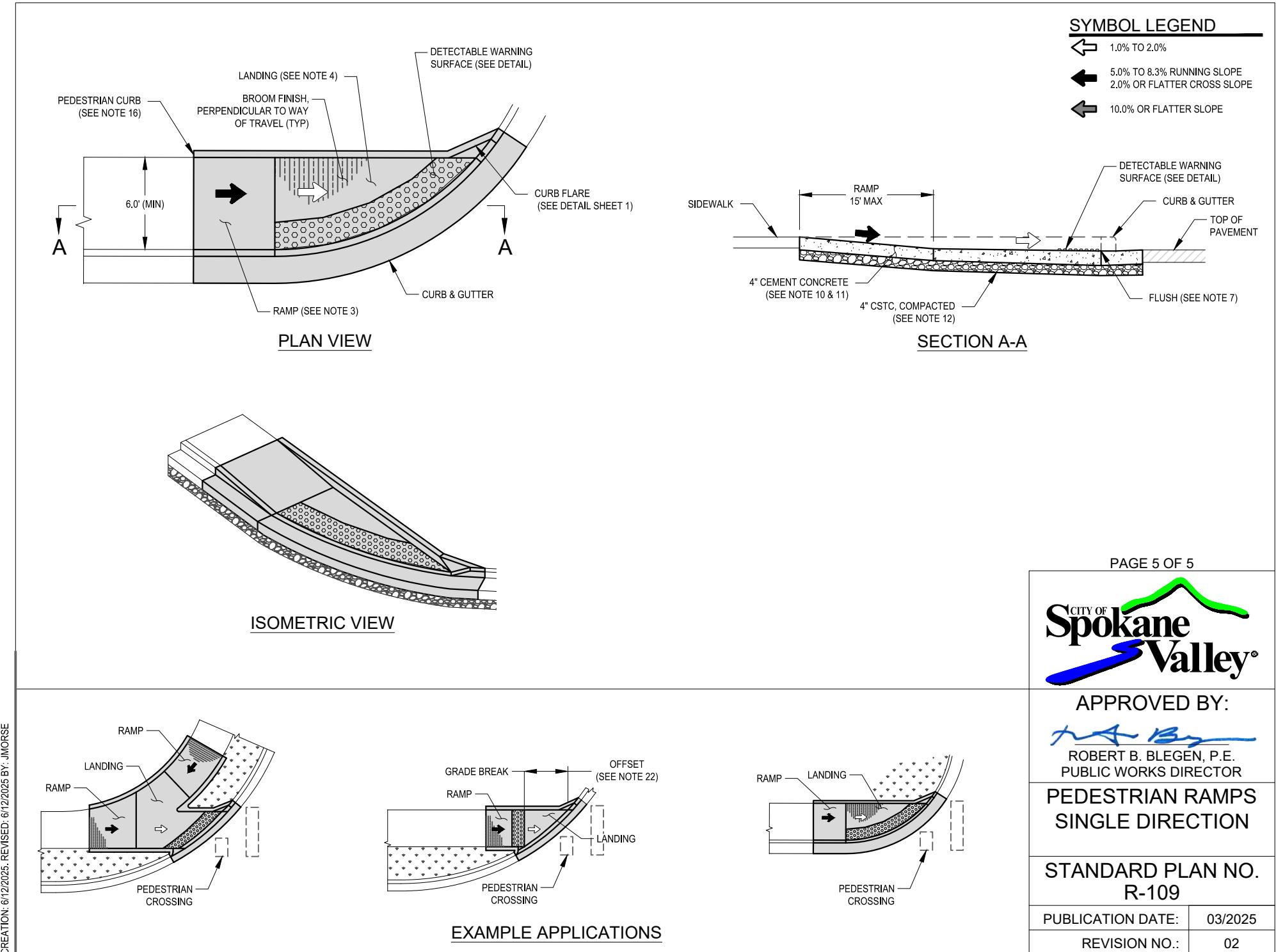
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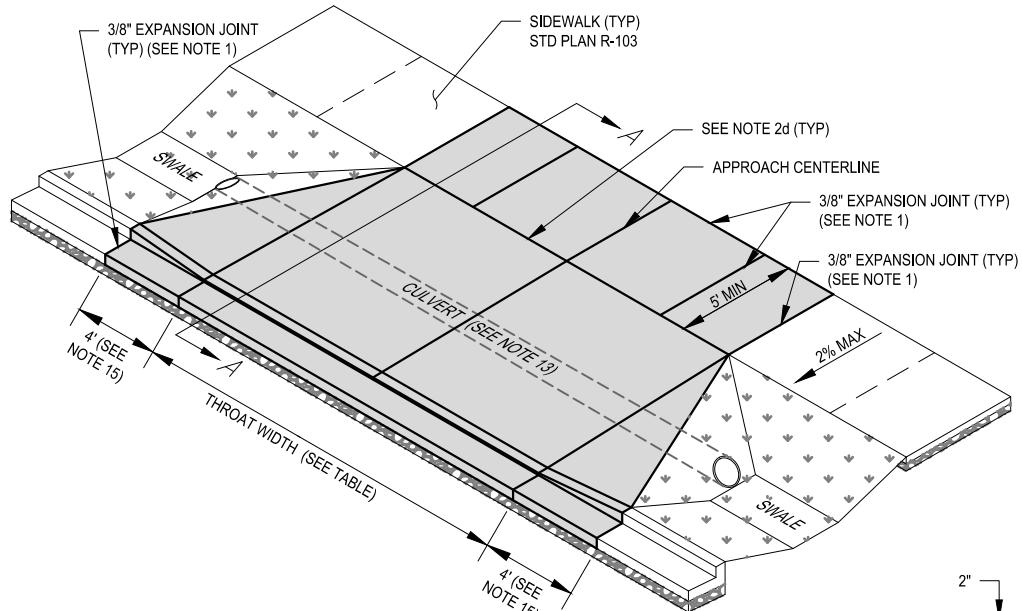
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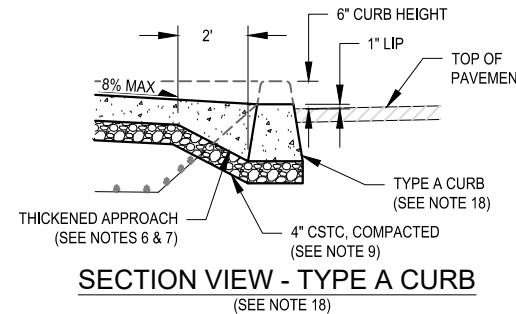


GENERAL NOTES:

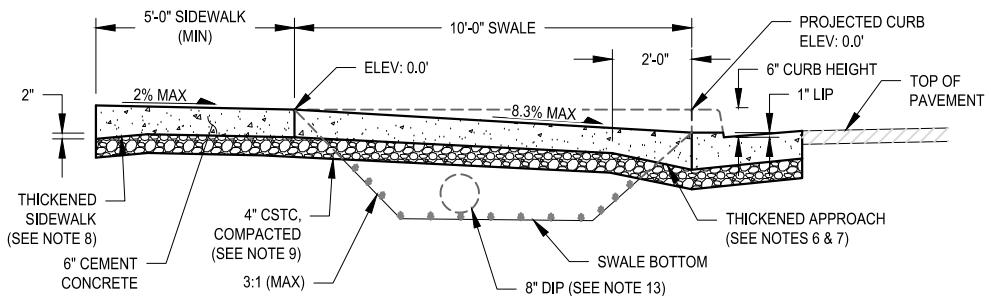
1. EXPANSION JOINT MINIMUM REQUIREMENTS:
 - a. 3/8" EXPANSION JOINT MATERIAL SHALL BE PLACED AT LEAST EVERY 15' IN WIDTH WITHIN THE DRIVEWAY APPROACH AND SHALL LINE UP WITH SIDEWALK EXPANSION JOINTS IF APPLICABLE.
 - b. 3/8" EXPANSION JOINT MATERIAL IS REQUIRED BETWEEN DRIVEWAY SLAB AND THE SIDEWALK AND THE DRIVEWAY APPROACH.
 - c. EXPANSION JOINT MATERIAL SHALL BE SECURED IN PLACE PRIOR TO CONCRETE PLACEMENT AND SHALL COMPLETELY SEPARATE ADJACENT SLABS EXTENDING FROM THE SURFACE TO GRAVEL BASE. PLACEMENT OF EXPANSION JOINT MATERIAL SHALL NOT BE FLOATED OR PRESSED INTO WET CONCRETE AFTER CONCRETE HAS BEEN PLACED.
 - d. AN ALTERNATIVE TO SETTING EXPANSION JOINT MATERIAL PRIOR TO PLACING CONCRETE WOULD BE TO SAW CUT FULL DEPTH 1/2" WIDE AND FILL WITH APPROVED MASTIC PER WSDOT 9-04.2(2) POURED RUBBER JOINT SEALER.
2. CONTROL JOINTS SHALL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. CRACK REPAIR WITHIN THE WARRANTY PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTROL JOINT MINIMUM REQUIREMENTS; CONTROL JOINTS SHALL:
 - a. BE NO FARTHER APART THAN 10'.
 - b. NOT EXCEED A RATIO OF 1 TO 1.25 LENGTH TO WIDTH.
 - c. BE A MINIMUM OF 1" DEEP (FOR TROWEL OR SAW CUT).
 - d. BE ADDED AT ALL GRADE BREAKS.
3. CEMENT CONCRETE SHALL BE CLASS 4,000 CONCRETE PER SECTION 6-02 OF THE WSDOT STANDARD SPECIFICATIONS.
4. ALL EXTERNAL EDGES SHALL BE TROWELED WITH A 3/8" TO 1/2" RADIUS.
5. A 4" (MIN) THICK CSTM LAYER SHALL BE PLACED UNDER DRIVE APPROACH.

ISOMETRIC VIEW

6. FIRST 2' OF DRIVE APPROACH (AT CURB SIDE) SHALL BE THICKENED TO MATCH BOTTOM OF CURB.
7. WHEN AN ASPHALT APPROACH IS USED THE ASPHALT SHALL BE PLACED IN 0.30' LIFTS PER WSDOT 5-04.3(7)
8. LAST 2' OF SIDEWALK (HOUSE SIDE) WILL BE THICKENED 2 EXTRA INCHES WHEN OTHER HARD SURFACES ARE NOT PROPOSED ADJACENT TO THE APPROACH.
9. SUBGRADE AND CSTM UNDER APPROACH SHALL BE COMPACTED TO 95%.
10. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.
11. PERIMETER EDGING SHALL NOT BE ALLOWED UNLESS IT IS FOR A REPAIR/REPLACEMENT OF EXISTING PANELS AND ONLY WHEN MATCHING ADJACENT PANELS. CONTRACTOR SHALL MAKE AN EFFORT TO MATCH EXISTING PANELS IN ACCORDANCE WITH DIRECTION FROM CITY INSPECTOR.
12. ALL CHANGES IN LEVEL ACROSS JOINT MUST BE FLUSH WITH A MAXIMUM DIFFERENCE IN ELEVATION OF 3/16".
13. FOR ROADSIDE SWALE APPLICATIONS, INSTALL 8" DIP CULVERT UNDER APPROACH PER SPOKANE REGIONAL STORMWATER MANUAL. ENDS SHALL BE BEVELED TO MATCH SWALE SLOPE. THERE SHALL BE 10" (MIN) OF COVER, INCLUDING CONCRETE AND CSTM, OVER THE CULVERT.
14. MONO-PLACEMENT OF CURBS AND CROSS GUTTER WITH OTHER STRUCTURES SUCH AS SIDEWALKS AND APPROACHES SHALL NOT BE ALLOWED AND SHALL BE SEPARATED WITH EITHER A COLD JOINT OR EXPANSION JOINT SEALED WITH A POURED RUBBER JOINT SEALER PER WSDOT 9-04.2(2).
15. SAWCUTTING OF CURB TO CREATE CURB DROP IS NOT ALLOWED.
16. ALL APPROACHES SHALL BE PER CITY STREET STANDARDS 7.3 AND 7.8.
17. EXCEPT FOR JOINTS AND BROOM FINISHING, NO OTHER MARKINGS ARE PERMITTED ON THE WALKING SURFACE.
18. TYPE A CURB TO BE USED ONLY WHEN MATCHING EXISTING CURB AND WITH APPROVAL OF THE CITY ENGINEER.



SECTION VIEW - TYPE A CURB
(SEE NOTE 18)



SECTION A-A



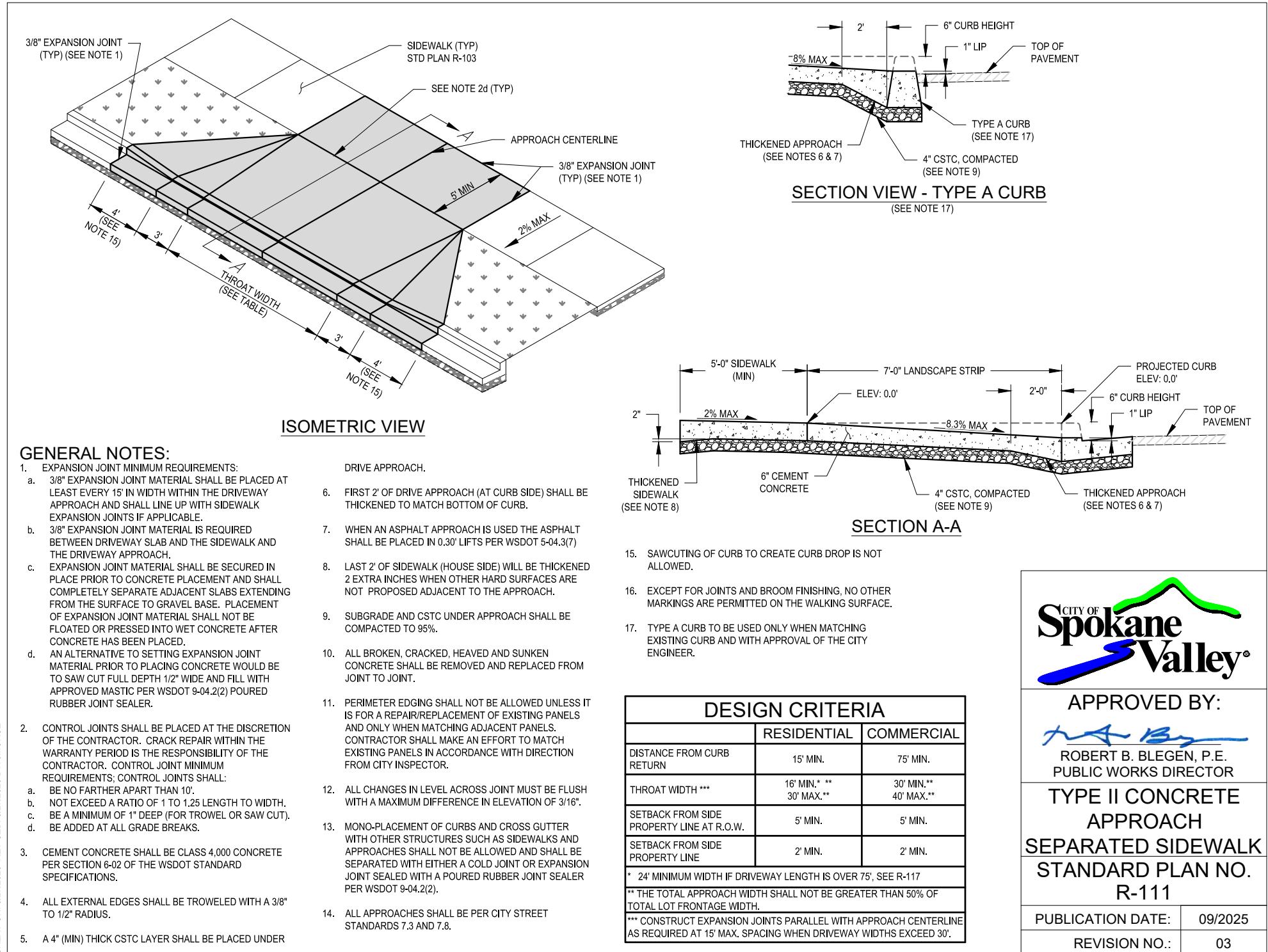
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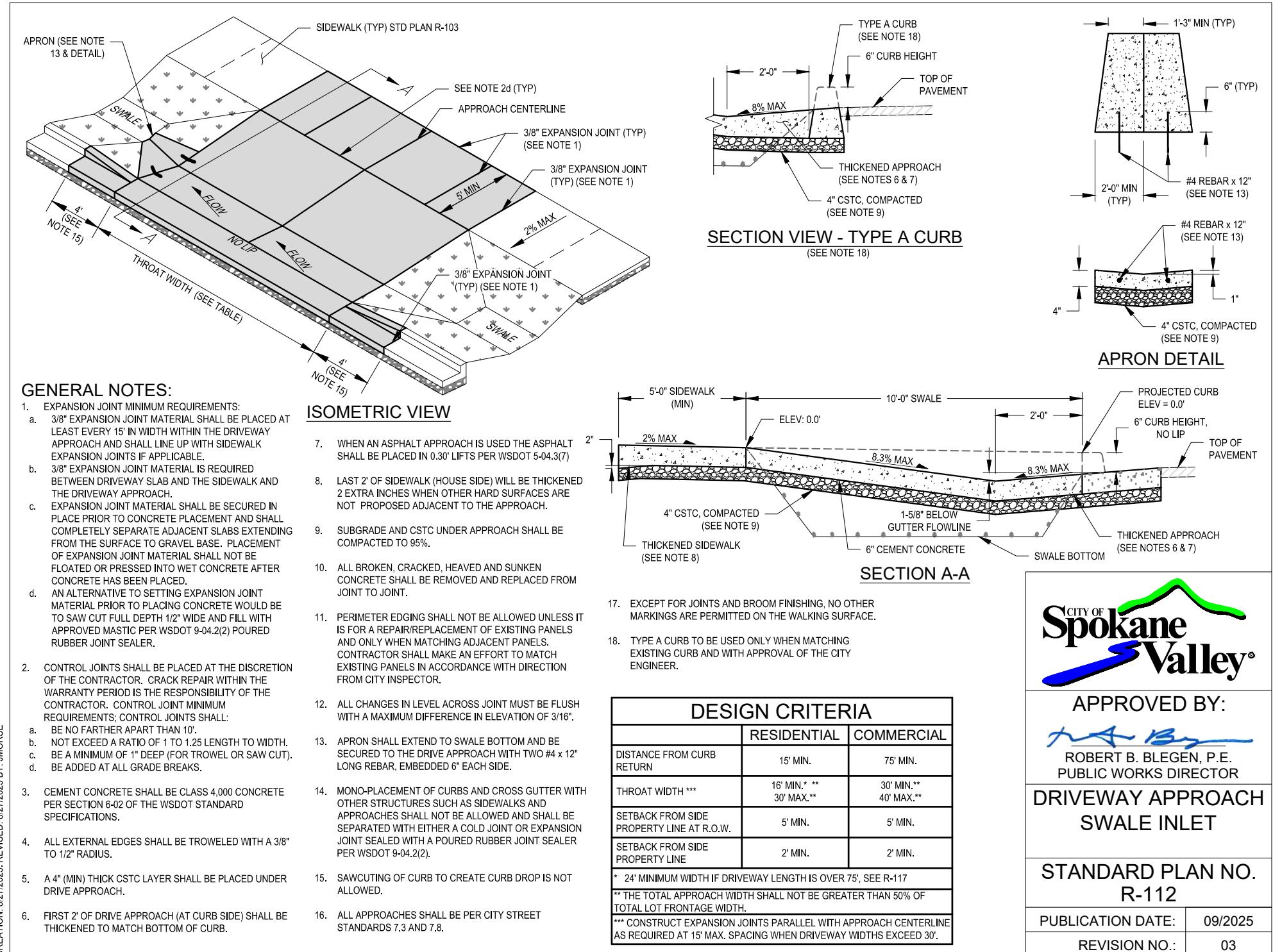

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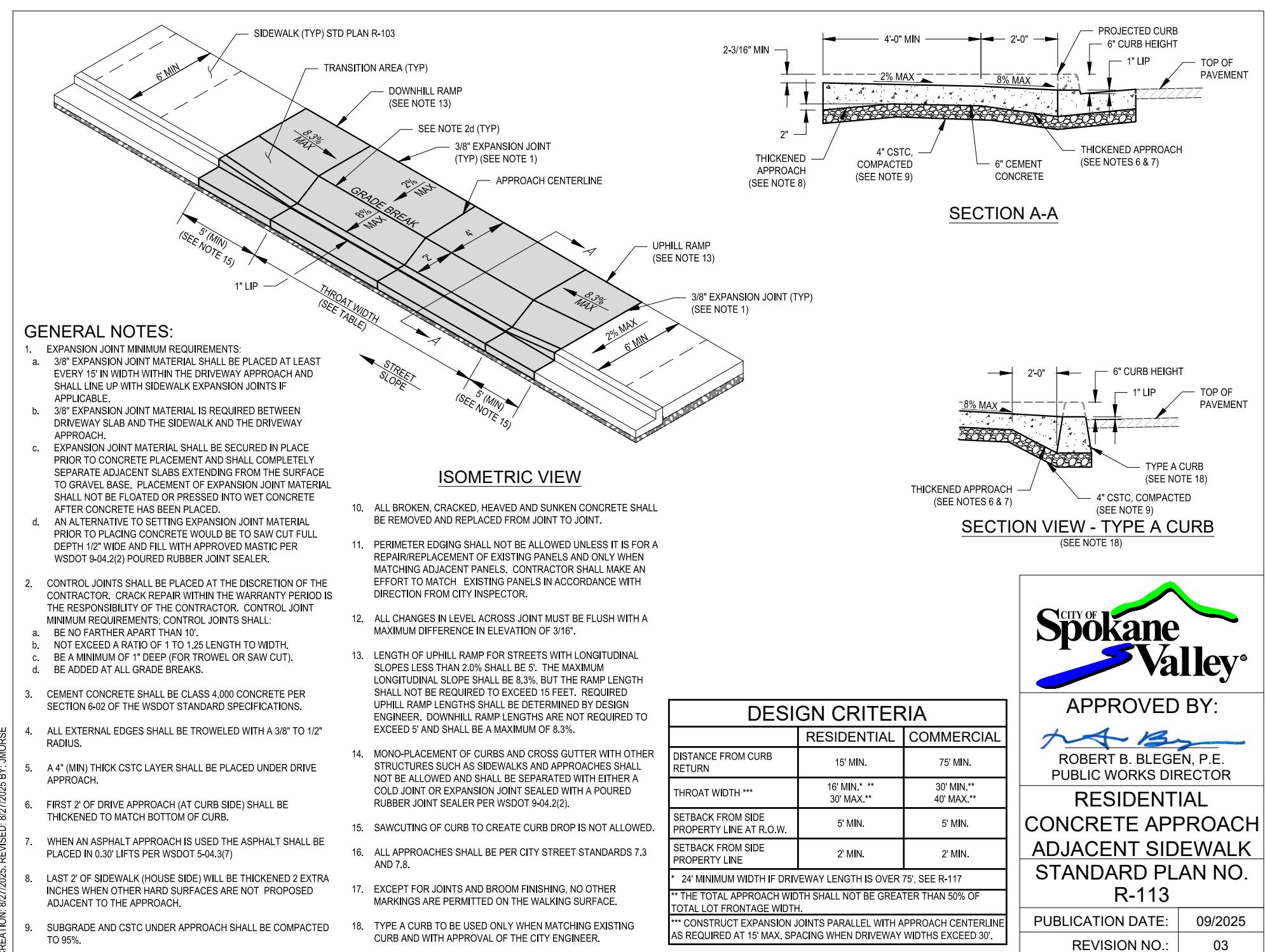
**TYPE I CONCRETE
APPROACH
SEPARATED SIDEWALK
STANDARD PLAN NO.
R-110**

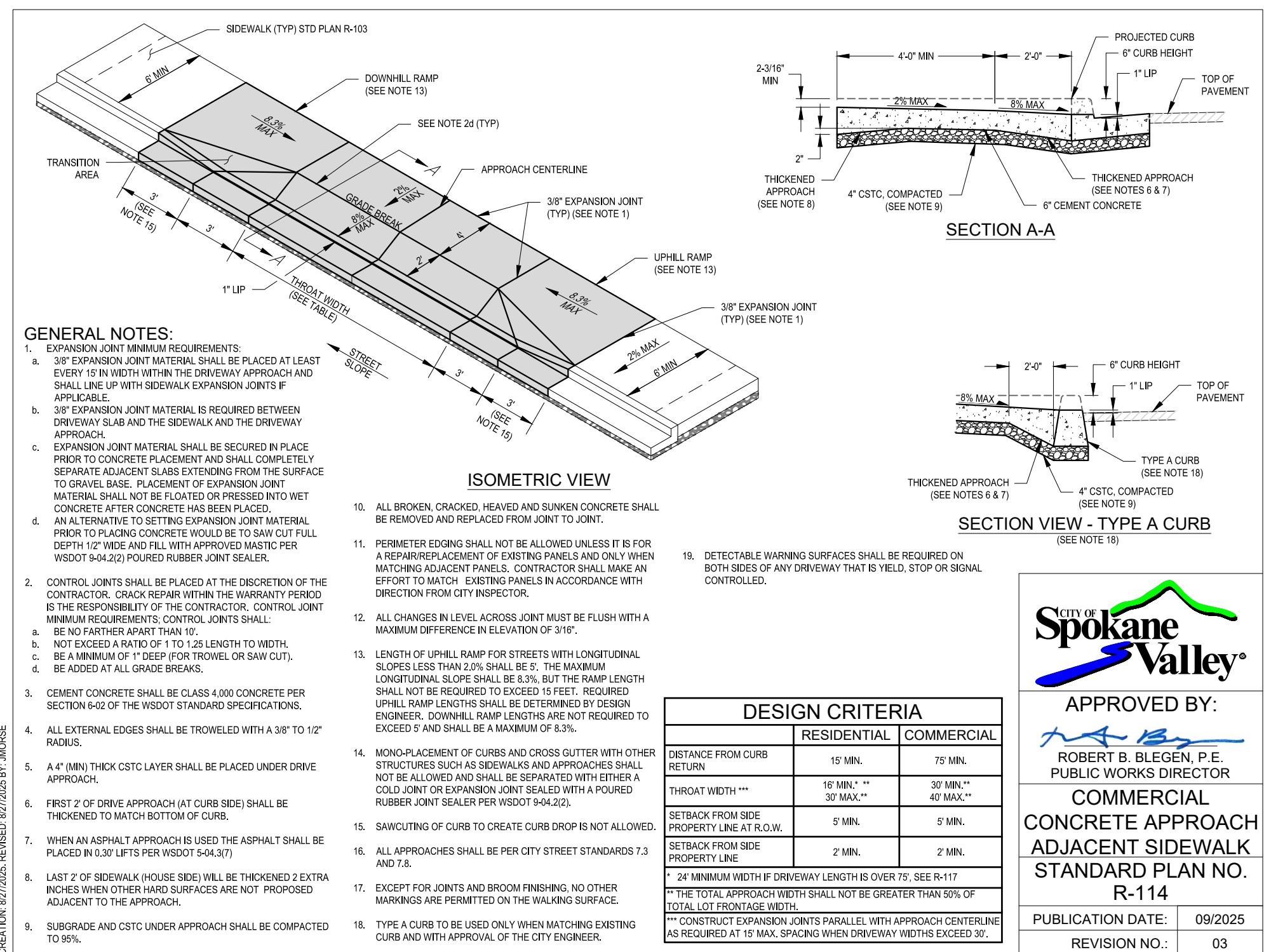
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DESIGN CRITERIA		
	RESIDENTIAL	COMMERCIAL
DISTANCE FROM CURB RETURN	15' MIN.	75' MIN.
THROAT WIDTH ***	16' MIN.* ** 30' MAX.**	30' MIN.** 40' MAX.**
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.	2' MIN.
* 24' MINIMUM WIDTH IF DRIVEWAY LENGTH IS OVER 75', SEE R-117		
** THE TOTAL APPROACH WIDTH SHALL NOT BE GREATER THAN 50% OF TOTAL LOT FRONTAGE WIDTH.		
*** CONSTRUCT EXPANSION JOINTS PARALLEL WITH APPROACH CENTERLINE AS REQUIRED AT 15' MAX. SPACING WHEN DRIVEWAY WIDTHS EXCEED 30'.		









GENERAL NOTES:

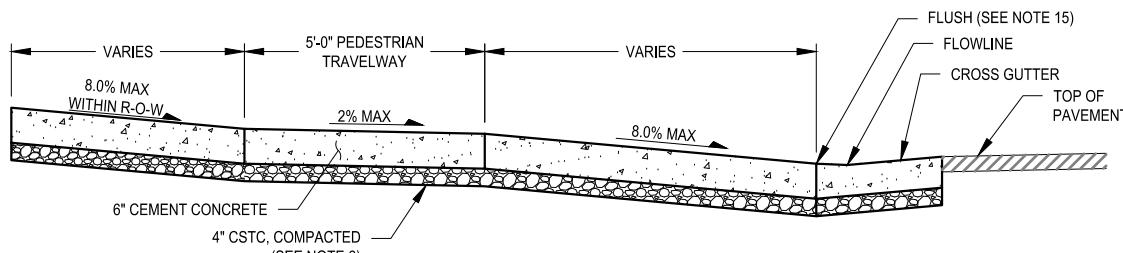
SEE PAGE 2 OF 2

ABBREVIATIONS

TC	TOP OF CURB
TP	TOP OF PAVEMENT
FL	FLOWLINE

ADA REQUIREMENTS

	RECOMMENDED	MIN	MAX
FLARED SIDE SLOPE (%)	-	-	-
FLARED SIDE LENGTH (FT)	-	-	-
RAMP SLOPE (%)	7	0.5	8.33
RAMP CROSS SLOPE (%)	1	0.5	2
RAMP LENGTH (FT)	7	6	15
RAMP WIDTH (FT)	5	4	-
LANDING WIDTH (FT)	5	4	-
LANDING SLOPE (%)	1	0.5	2
GUTTER SLOPE (%)	4	2	8
CHANGE IN LEVEL (IN)	FLUSH	0.5" (SEE NOTE 2)	

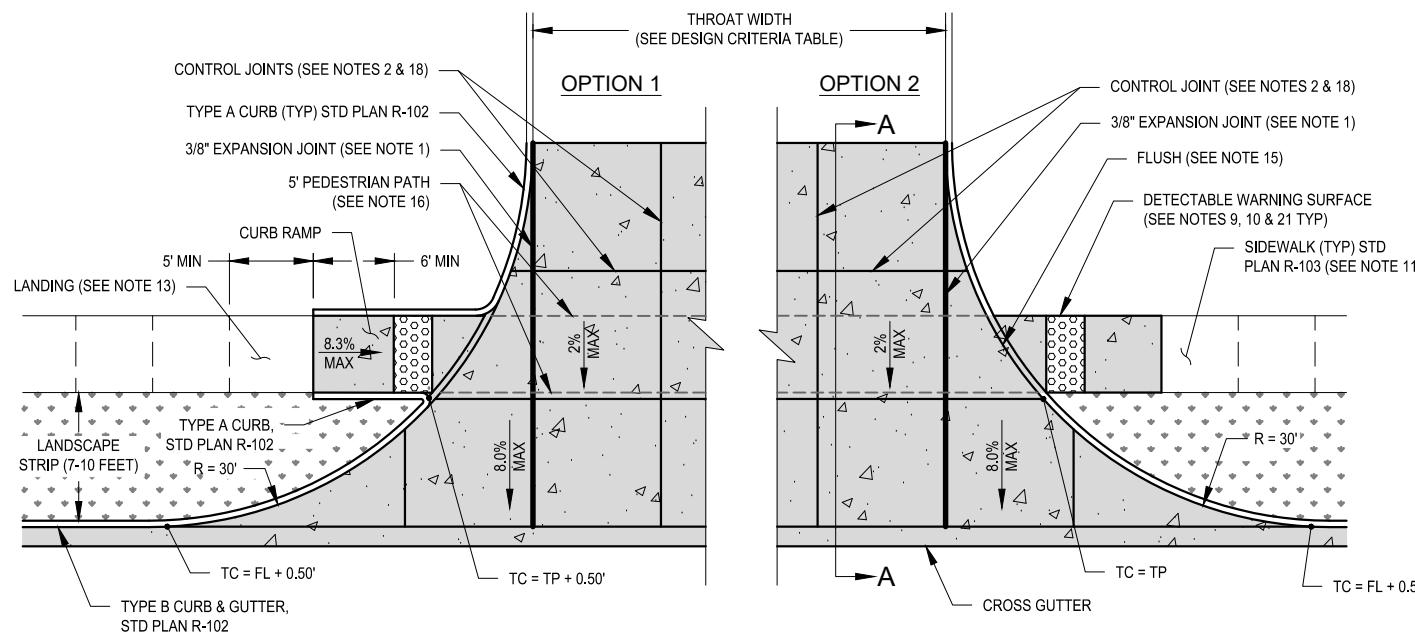


SECTION A-A

DESIGN CRITERIA

COMMERCIAL

DISTANCE FROM CURB RETURN	75' MIN.
THROAT WIDTH ***	30' MIN.** 40' MAX.**
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.
THE TOTAL APPROACH WIDTH SHALL NOT BE GREATER THAN 50% OF THE TOTAL LOT FRONTAGE WIDTH.	
THE TOTAL APPROACH WIDTH SHALL NOT BE GREATER THAN 50% OF TOTAL LOT FRONTAGE WIDTH.	
*** CONSTRUCT EXPANSION JOINTS PARALLEL WITH APPROACH CENTERLINE AS REQUIRED AT 15' MAX. SPACING WHEN DRIVEWAY WIDTHS EXCEED 30'.	



PLAN VIEW

PAGE 1 OF 2



APPROVED BY:


ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

HIGH VOLUME
CONCRETE APPROACH
(REQUIRES CITY APPROVAL)

STANDARD PLAN NO.
R-115

PUBLICATION DATE: 09/2025
REVISION NO.: 03

GENERAL NOTES:

1. EXPANSION JOINT MINIMUM REQUIREMENTS:
 - a. 3/8" EXPANSION JOINT MATERIAL SHALL BE PLACED AT LEAST EVERY 15' IN WIDTH WITHIN THE DRIVEWAY APPROACH AND SHALL LINE UP WITH SIDEWALK EXPANSION JOINTS IF APPLICABLE.
 - b. 3/8" EXPANSION JOINT MATERIAL IS REQUIRED BETWEEN DRIVEWAY SLAB AND THE SIDEWALK AND THE DRIVEWAY APPROACH.
 - c. EXPANSION JOINT MATERIAL SHALL BE SECURED IN PLACE PRIOR TO CONCRETE PLACEMENT AND SHALL COMPLETELY SEPARATE ADJACENT SLABS EXTENDING FROM THE SURFACE TO GRAVEL BASE. PLACEMENT OF EXPANSION JOINT MATERIAL SHALL NOT BE FLOATED OR PRESSED INTO WET CONCRETE AFTER CONCRETE HAS BEEN PLACED.
 - d. AN ALTERNATIVE TO SETTING EXPANSION JOINT MATERIAL PRIOR TO PLACING CONCRETE WOULD BE TO SAW CUT FULL DEPTH 1/2" WIDE AND FILL WITH APPROVED MASTIC PER WSDOT 9-04.2(2) POURED RUBBER JOINT SEALER.
2. CONTROL JOINTS SHALL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. CRACK REPAIR WITHIN THE WARRANTY PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTROL JOINT MINIMUM REQUIREMENTS; CONTROL JOINTS SHALL:
 - a. BE NO FARTHER APART THAN 10'.
 - b. NOT EXCEED A RATIO OF 1 TO 1.25 LENGTH TO WIDTH.
 - c. BE A MINIMUM OF 1" DEEP (FOR TROWEL OR SAW CUT).
 - d. BE ADDED AT ALL GRADE BREAKS.
3. CEMENT CONCRETE SHALL BE CLASS 4,000 CONCRETE PER SECTION 6-02 OF THE WSDOT STANDARD SPECIFICATIONS.
4. ALL EXTERNAL EDGES SHALL BE TROWELED WITH A 3/8" TO 1/2" RADIUS.
5. A 4" (MIN) THICK CSTC LAYER SHALL BE PLACED UNDER DRIVE APPROACH.
6. SUBGRADE AND CSTC UNDER APPROACH SHALL BE COMPACTED TO 95%.
7. ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT.
8. PERIMETER EDGING SHALL NOT BE ALLOWED UNLESS IT IS FOR A REPAIR/REPLACEMENT OF EXISTING PANELS AND ONLY WHEN MATCHING ADJACENT PANELS. CONTRACTOR SHALL MAKE AN EFFORT TO MATCH EXISTING PANELS IN ACCORDANCE WITH DIRECTION FROM CITY INSPECTOR.
9. DETECTABLE WARNING SURFACES SHALL BE PER WSDOT STANDARD PLAN F-45.10. DETECTABLE WARNING SURFACES SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE RAMP. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED TO BE PARALLEL TO THE DIRECTION OF TRAVEL AND PERPENDICULAR TO THE GRADE BREAK AT THE BACK OF CURB.
10. DETECTABLE WARNING SURFACES SHALL BE FEDERAL YELLOW IN COLOR.
11. SIDEWALK LONGITUDINAL SLOPE MATCHES STREET LONGITUDINAL SLOPE.
12. ALL CHANGES IN LEVEL ACROSS JOINTS MUST BE FLUSH WITH A MAXIMUM DIFFERENCE IN ELEVATION OF 3/16".
13. LANDING LONGITUDINAL AND CROSS SLOPE SHALL BE MAX. 2%.
14. MAXIMUM SLOPES ARE STRICTLY ENFORCED. EXCEEDING MAXIMUM SLOPES WILL REQUIRE REMOVAL AND RECONSTRUCTION.
15. VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.5" MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 0.25" - 0.5" SHALL BE BEVELED WITH A SLOPE 2:1 MAX.
16. PEDESTRIAN PATH SHALL MEET ALL CURRENT ADA GUIDELINES.
17. MONO-PLACEMENT OF CURBS AND CROSS GUTTER WITH OTHER STRUCTURES SUCH AS SIDEWALKS AND APPROACHES SHALL NOT BE ALLOWED AND SHALL BE SEPARATED WITH EITHER A COLD JOINT OR EXPANSION JOINT SEALED WITH APPROVED MASTIC PER WSDOT 9-04.2(2).
18. CONTROL JOINTS SHALL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. CRACK REPAIR WITHIN THE WARRANTY PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR.
19. ALL APPROACHES SHALL BE PER CITY STANDARDS 7.3 AND 7.8.
20. EXCEPT FOR JOINTS AND BROOM FINISHING, NO OTHER MARKINGS ARE PERMITTED ON THE WALKING SURFACE.
21. DETECTABLE WARNING SURFACES SHALL BE REQUIRED ON BOTH SIDES OF ANY DRIVEWAY THAT IS YIELD, STOP OR SIGNAL CONTROLLED.

PAGE 2 OF 2



APPROVED BY:



ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

HIGH VOLUME
CONCRETE APPROACH
(REQUIRES CITY APPROVAL)

STANDARD PLAN NO.
R-115

PUBLICATION DATE: 09/2025

REVISION NO.: 03

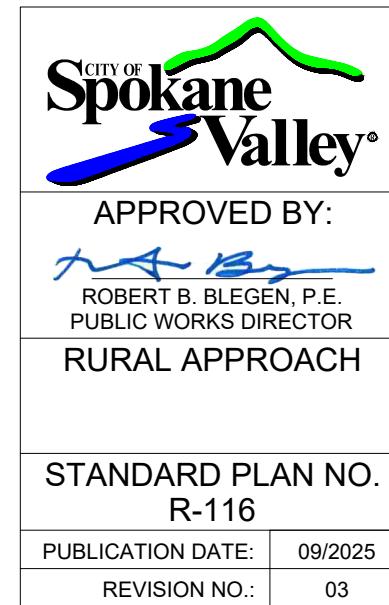
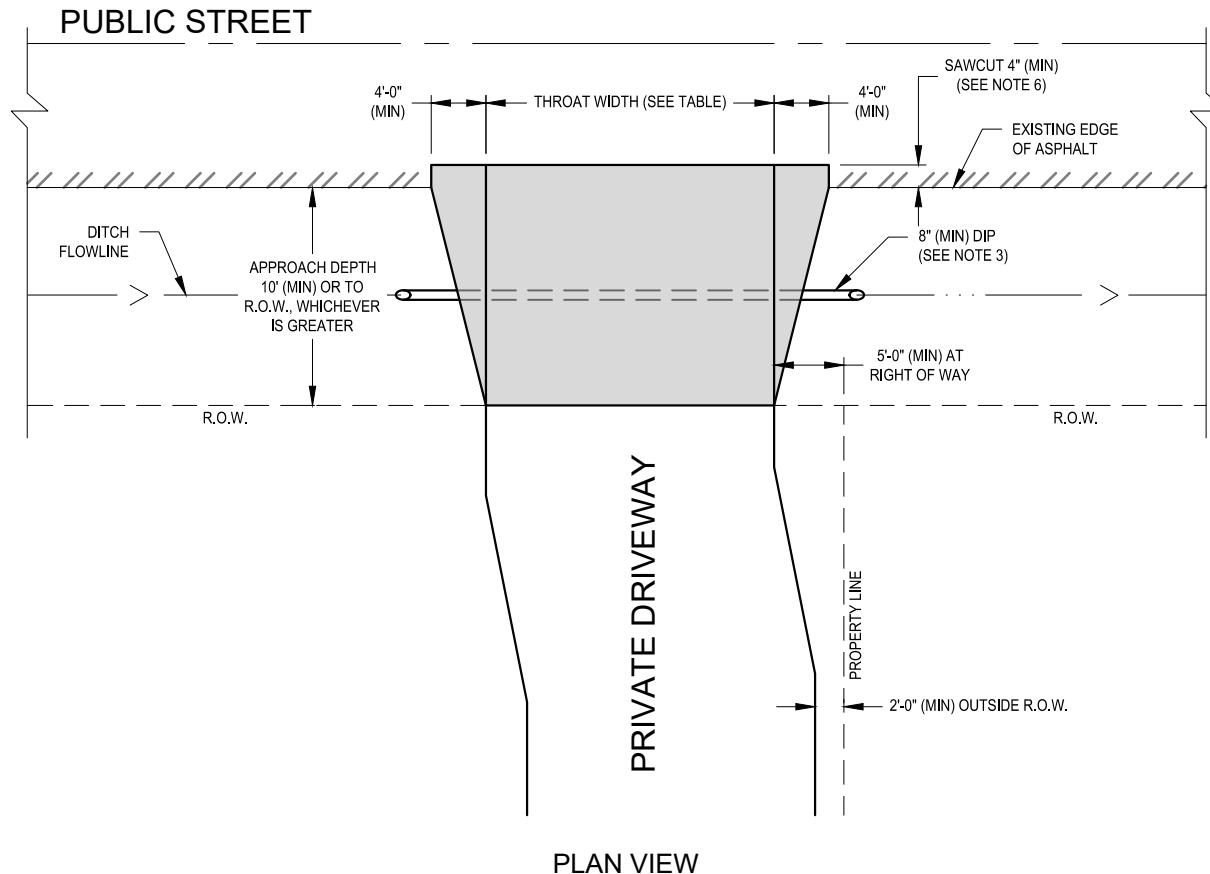
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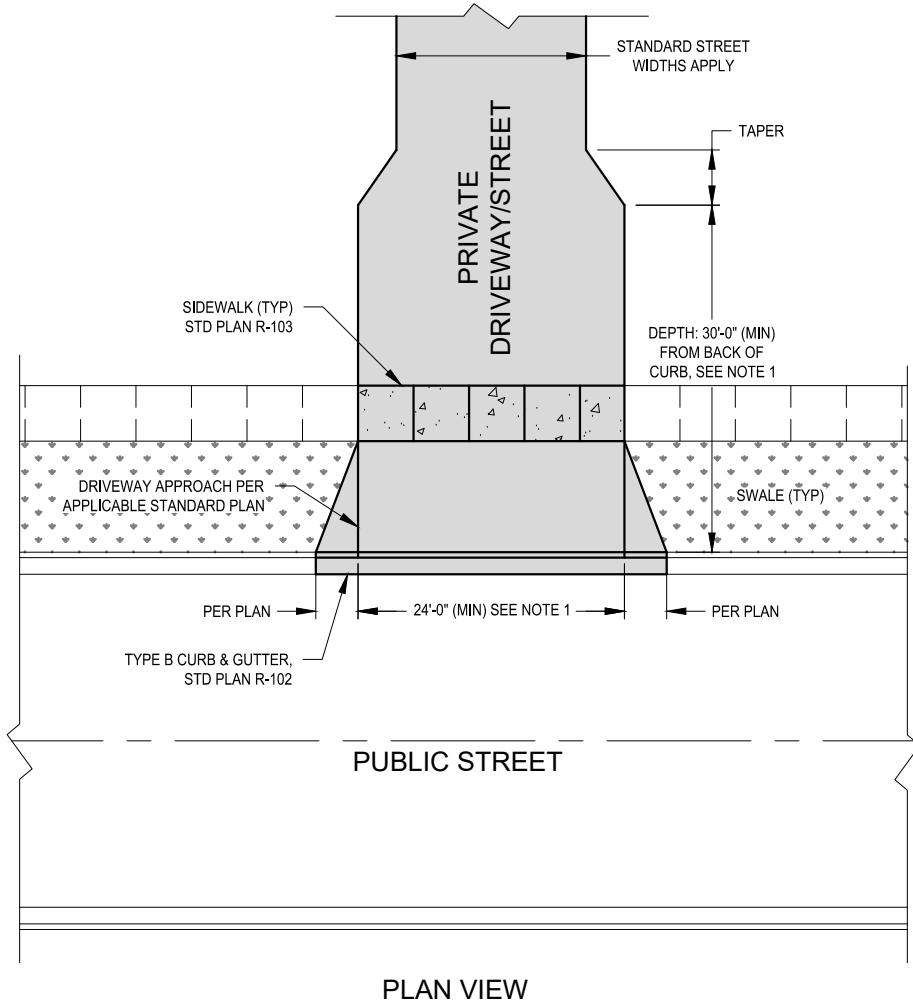
- ONLY TO BE USED IN APPLICATIONS WHERE CURB IS NEITHER EXISTING OR REQUIRED.
- SHALL BE CONSTRUCTED OF MIN. 3" HMA OVER 6" CSTC OR 6" CONCRETE OVER 4" CSTC. CEMENT CONCRETE SHALL CLASS 4,000 CONCRETE PER SECTION 6-02 OF THE WSDOT STANDARD SPECIFICATIONS.
- FOR ROADSIDE SWALE AND DITCH APPLICATIONS, INSTALL 8" (MIN) DUCTILE IRON PIPE (DIP) CULVERT UNDER APPROACH PER SPOKANE REGIONAL STORMWATER MANUAL. ENDS SHALL BE BEVELED TO MATCH SWALE SLOPE.
- SUBGRADE AND CSTC UNDER APPROACH SHALL BE COMPACTED TO 95%.
- WHEN THE APPROACH IS CONSTRUCTED OF CONCRETE, ALL BROKEN, CRACKED, HEAVED AND SUNKEN CONCRETE SHALL BE REMOVED AND REPLACED FROM JOINT TO JOINT. THE GENERAL NOTES REGARDING CONSTRUCTION JOINTS MATERIALS FROM STANDARD PLAN R-115 SHALL APPLY, SPECIFICALLY NOTES 1 THRU 5.
- SAWCUT A MINIMUM OF 4" WIDE AT THE EXISTING EDGE OF ASPHALT TO PROVIDE A CLEAN JOINT BETWEEN THE EXISTING ASPHALT AND THE PROPOSED APPROACH. WHEN APPROACH IS CONCRETE, A SAWCUT AND ASPHALT PATCH IS STILL REQUIRED TO PROVIDE A CLEAN JOINT.
- ALL APPROACHES SHALL BE PER CITY STREET STANDARDS 7.3 AND 7.8.

DESIGN CRITERIA

	RESIDENTIAL	COMMERCIAL
DISTANCE FROM CURB RETURN	15' MIN.	75' MIN.
THROAT WIDTH ***	16' MIN.* ** 30' MAX.**	30' MIN.** 40' MAX.**
SETBACK FROM SIDE PROPERTY LINE AT R.O.W.	5' MIN.	5' MIN.
SETBACK FROM SIDE PROPERTY LINE	2' MIN.	2' MIN.

* 24' MINIMUM WIDTH IF DRIVEWAY LENGTH IS OVER 75', SEE R-117
 ** THE TOTAL APPROACH WIDTH SHALL NOT BE GREATER THAN 50% OF TOTAL LOT FRONTRAGE WIDTH.
 *** CONSTRUCT EXPANSION JOINTS PARALLEL WITH APPROACH CENTERLINE AS REQUIRED AT 15' MAX. SPACING WHEN DRIVEWAY WIDTHS EXCEED 30'. THIS ONLY APPLIES WHEN APPROACH IS CONSTRUCTED OF CEMENT CONCRETE.





GENERAL NOTES:

1. THE FIRST 30' FROM BACK OF CURB SHALL HAVE AT MINIMUM A 24' WIDE TRAVELWAY, TO PROVIDE ACCESS FOR EMERGENCY VEHICLES, WHEN REQUIRED BY SPOKANE VALLEY FIRE DEPARTMENT. WIDTH BEYOND THE FIRST 30' SHALL BE IN CONFORMANCE WITH APPLICABLE STREET STANDARDS.
2. DETECTABLE WARNING SURFACES SHALL BE REQUIRED ON BOTH SIDES OF ANY DRIVEWAY THAT IS YIELD, STOP OR SIGNAL CONTROLLED.



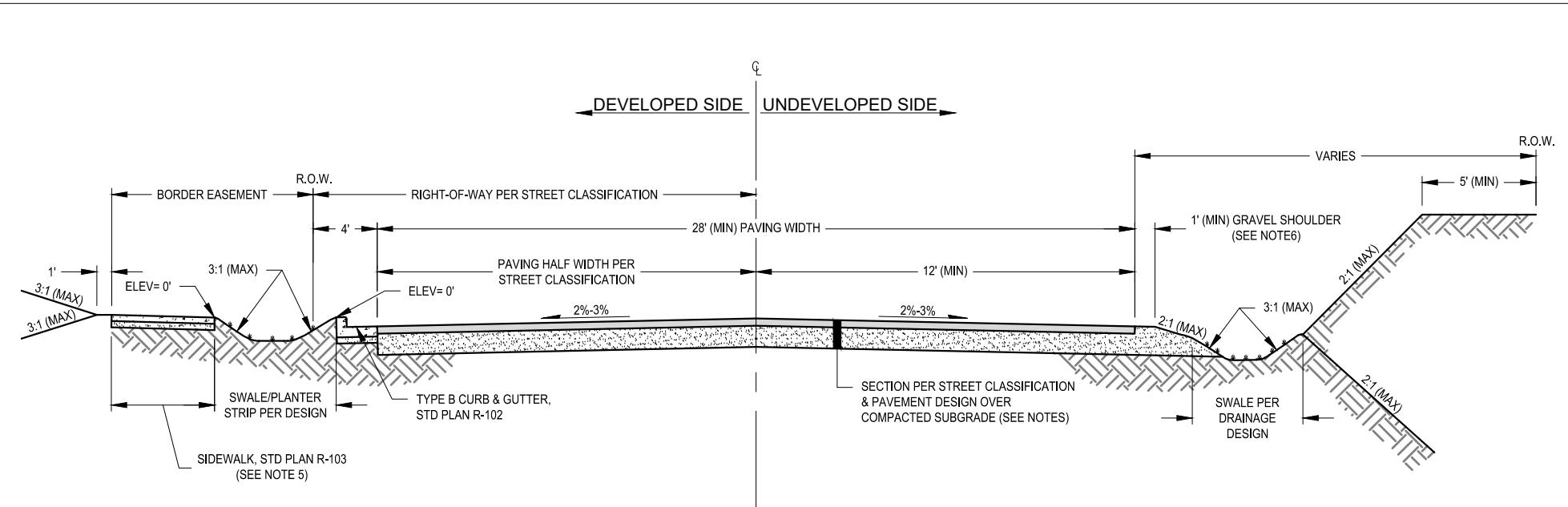
APPROVED BY:

ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

PRIVATE DRIVEWAY
OR STREET ACCESS
OVER 75' LONG
STANDARD PLAN NO.
R-117

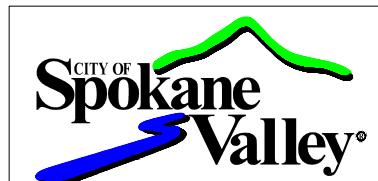
PUBLICATION DATE: 03/2025

REVISION NO.: 02



GENERAL NOTES

1. RIGHT-OF-WAY WIDTHS AND EASEMENTS SHOWN ARE MINIMUM REQUIREMENTS FOR NEW STREETS. MEASUREMENTS MAY NEED TO BE ADJUSTED TO MATCH EXISTING FACILITIES.
2. PAVED WIDTH IS MEASURED FROM EDGE OF TRAVELWAY (GUTTER).
3. STREET SECTION MAY BE INCREASED BASED ON GEOTECHNICAL EVALUATION AND PAVEMENT DESIGN.
4. SUBGRADE AND CSTM, INCLUDING GRAVEL SHOULDER SHALL BE COMPACTED TO 95%. COMPACTION AND TESTING REQUIREMENTS PER CHAPTER 9 OF SPOKANE VALLEY STREET STANDARDS.
5. SIDEWALK WIDTH SHALL BE PER STREET CLASSIFICATION, ZONING AND STANDARD PLAN R-103.
6. STREET SECTION AND CLASS OF MATERIALS SHALL BE PER CHAPTER 8, PAVEMENT DESIGN.



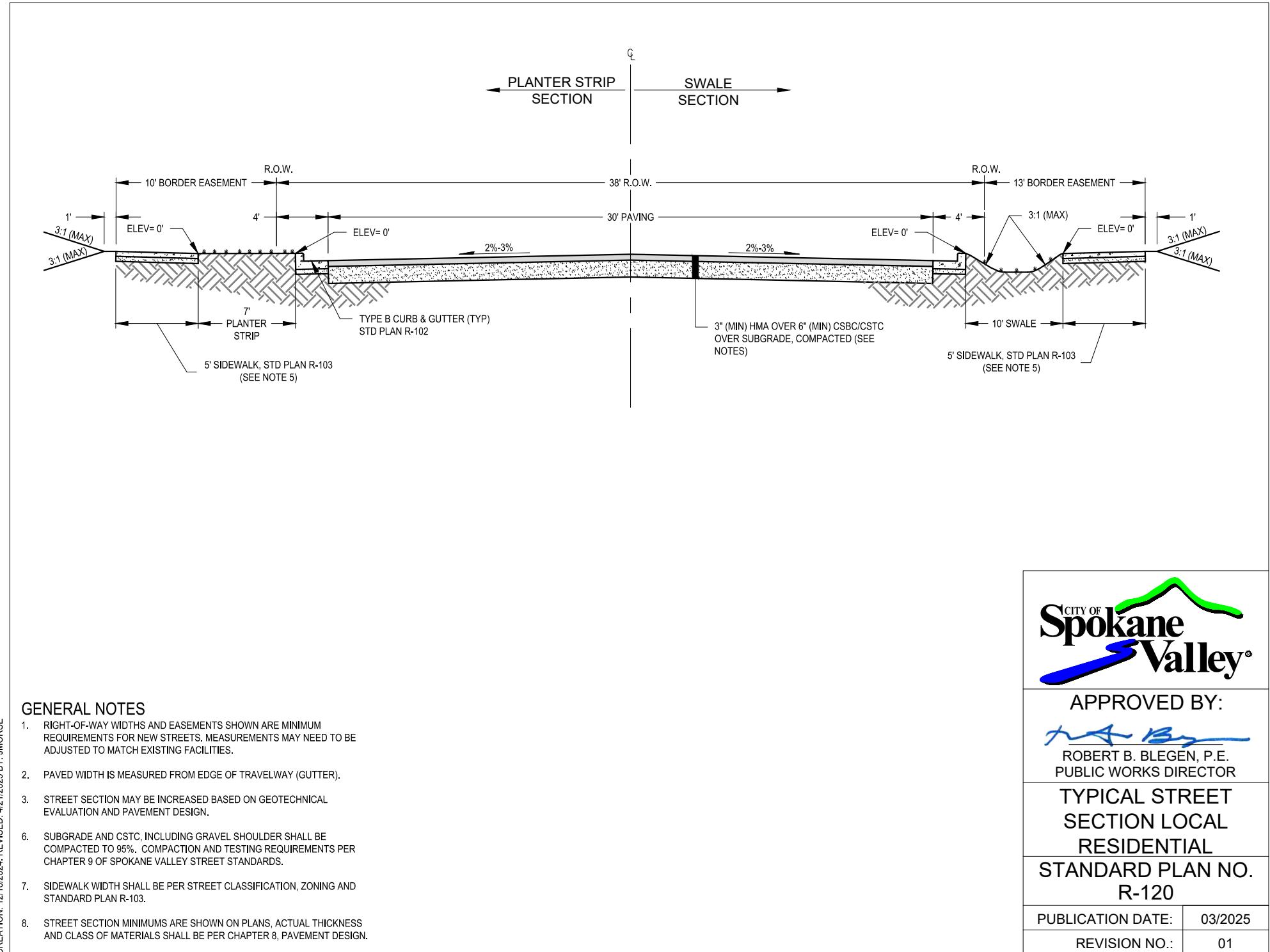
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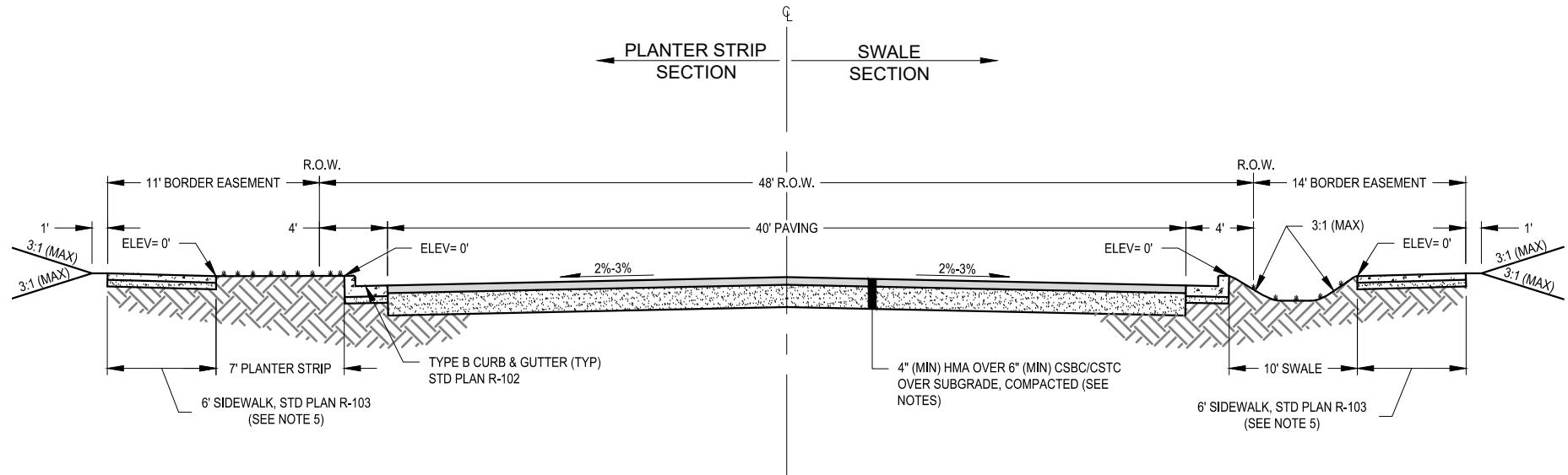
ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

TYPICAL STREET
SECTION HALF STREET

STANDARD PLAN NO.
R-119

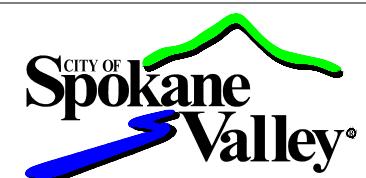
PUBLICATION DATE: 03/2025
REVISION NO.: 01





GENERAL NOTES

1. RIGHT-OF-WAY WIDTHS AND EASEMENTS SHOWN ARE MINIMUM REQUIREMENTS FOR NEW STREETS. MEASUREMENTS MAY NEED TO BE ADJUSTED TO MATCH EXISTING FACILITIES.
2. PAVED WIDTH IS MEASURED FROM EDGE OF TRAVELWAY (GUTTER).
3. STREET SECTION MAY BE INCREASED BASED ON GEOTECHNICAL EVALUATION AND PAVEMENT DESIGN.
4. SUBGRADE AND CSTC, INCLUDING GRAVEL SHOULDER SHALL BE COMPACTED TO 95%. COMPACTION AND TESTING REQUIREMENTS PER CHAPTER 9 OF SPOKANE VALLEY STREET STANDARDS.
5. SIDEWALK WIDTH SHALL BE PER STREET CLASSIFICATION, ZONING AND STANDARD PLAN R-103.
6. STREET SECTION MINIMUMS ARE SHOWN ON PLANS, ACTUAL THICKNESS AND CLASS OF MATERIALS SHALL BE PER CHAPTER 8, PAVEMENT DESIGN.

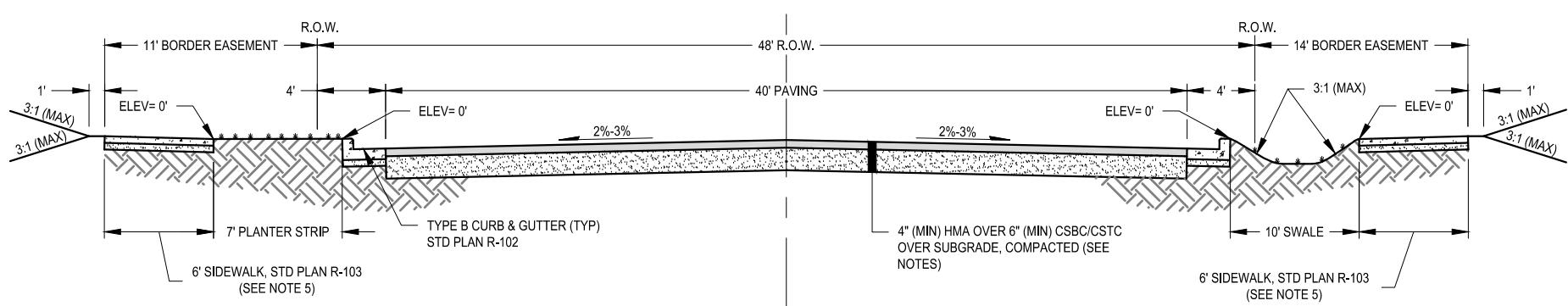


APPROVED BY:

ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

TYPICAL STREET
SECTION LOCAL
COMMERCIAL
STANDARD PLAN NO.
R-121

PUBLICATION DATE: 03/2025
REVISION NO.: 01



GENERAL NOTES

1. RIGHT-OF-WAY WIDTHS AND EASEMENTS SHOWN ARE MINIMUM REQUIREMENTS FOR NEW STREETS. MEASUREMENTS MAY NEED TO BE ADJUSTED TO MATCH EXISTING FACILITIES.
2. PAVED WIDTH IS MEASURED FROM EDGE OF TRAVELWAY (GUTTER).
3. STREET SECTION MAY BE INCREASED BASED ON GEOTECHNICAL EVALUATION AND PAVEMENT DESIGN.
4. SUBGRADE AND CSTC, INCLUDING GRAVEL SHOULDER SHALL BE COMPAKTED TO 95%. COMPACTION AND TESTING REQUIREMENTS PER CHAPTER 9 OF SPOKANE VALLEY STREET STANDARDS.
5. SIDEWALK WIDTH SHALL BE PER STREET CLASSIFICATION, ZONING AND STANDARD PLAN R-103.
6. STREET SECTION MINIMUMS ARE SHOWN ON PLANS, ACTUAL THICKNESS AND CLASS OF MATERIALS SHALL BE PER CHAPTER 8, PAVEMENT DESIGN.



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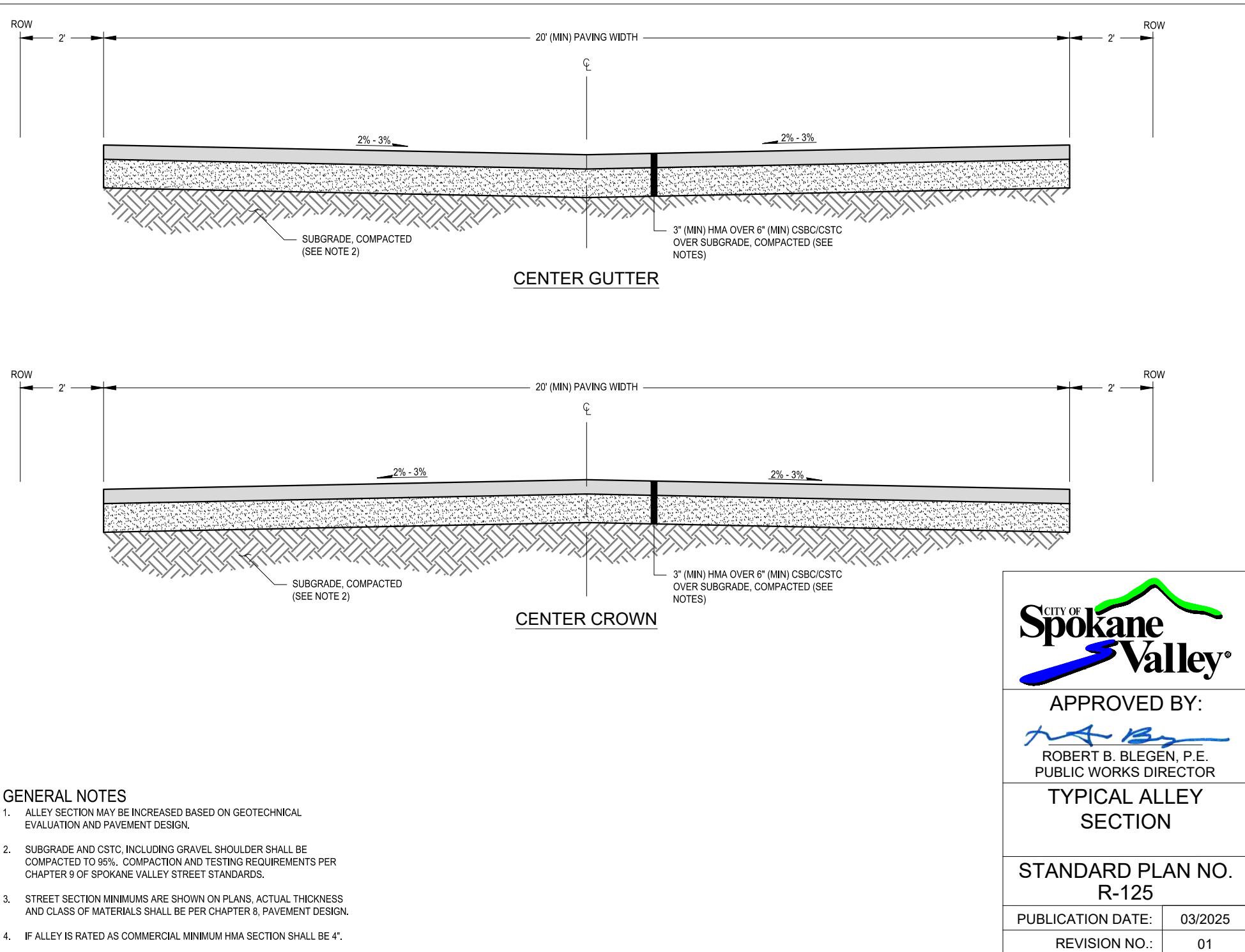
ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

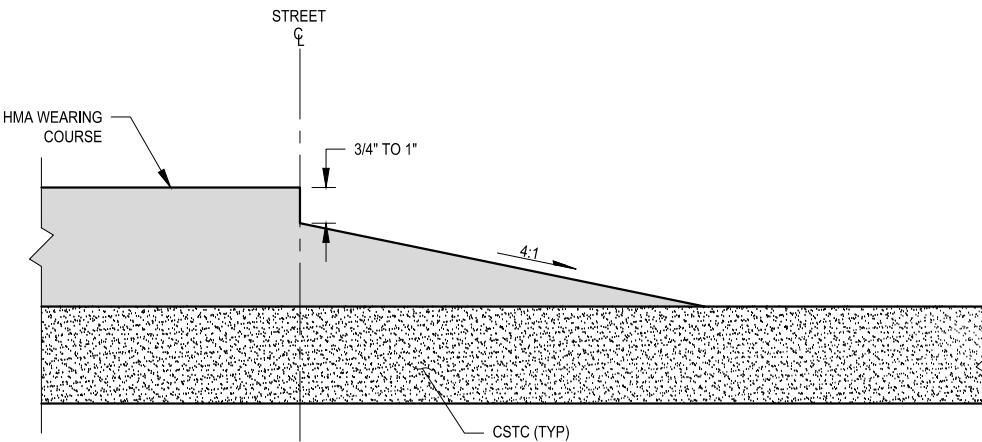
TYPICAL STREET
SECTION COLLECTOR

STANDARD PLAN NO.
R-122

PUBLICATION DATE: 03/2025

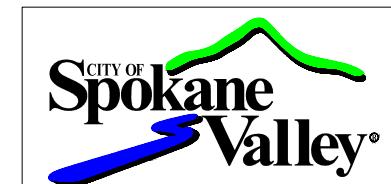
REVISION NO.: 01





GENERAL NOTES:

1. THE LONGITUDINAL JOINT SHALL BE A CONTINUOUS STEP WEDGE LOCATED ON CENTERLINE OF ROADWAY.
2. THE SLOPED PORTION OF THE WEDGE JOINT SHALL BE UNIFORMLY COMPACTED.
3. THE WEDGE JOINT SHALL RECEIVE AN APPLICATION OF JOINT ADHESIVE WITHIN 24 HRS OF PLACEMENT OF THE ABUTTING PAVEMENT.
4. ALL OTHER LONGITUDINAL JOINTS SHALL BE HOT LAP JOINTS, CONSTRUCTED BY USE OF MULTIPLE PAVERS.
5. ONLY ONE COLD LONGITUDINAL JOINT WILL BE ALLOWED IN WEARING COURSE.



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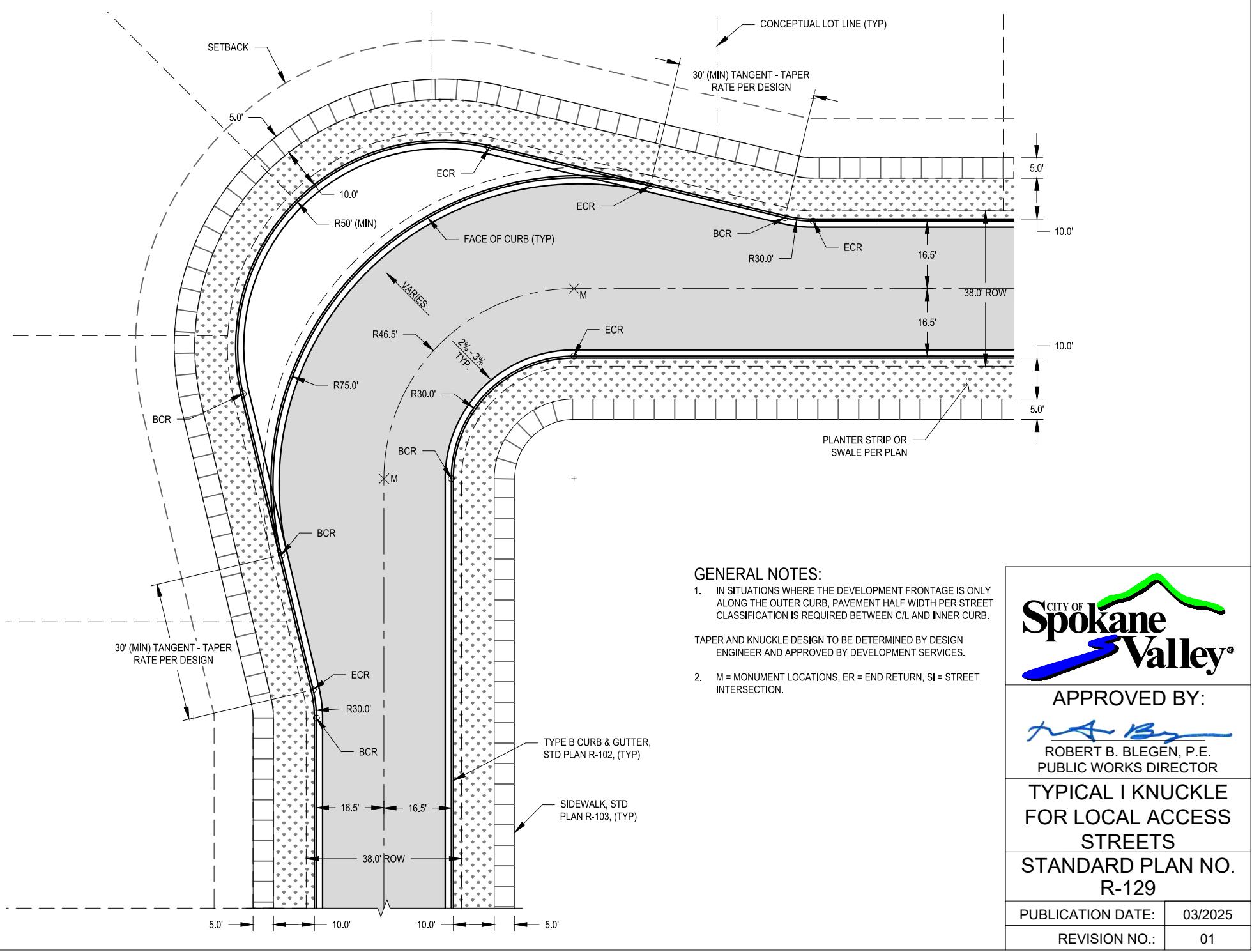
ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

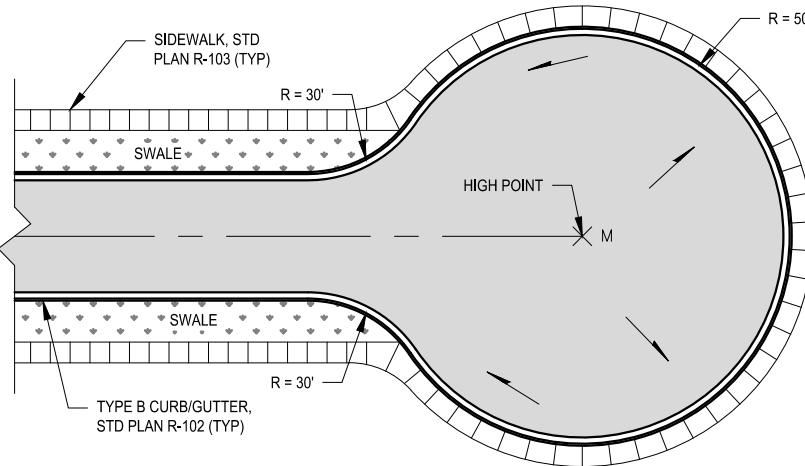
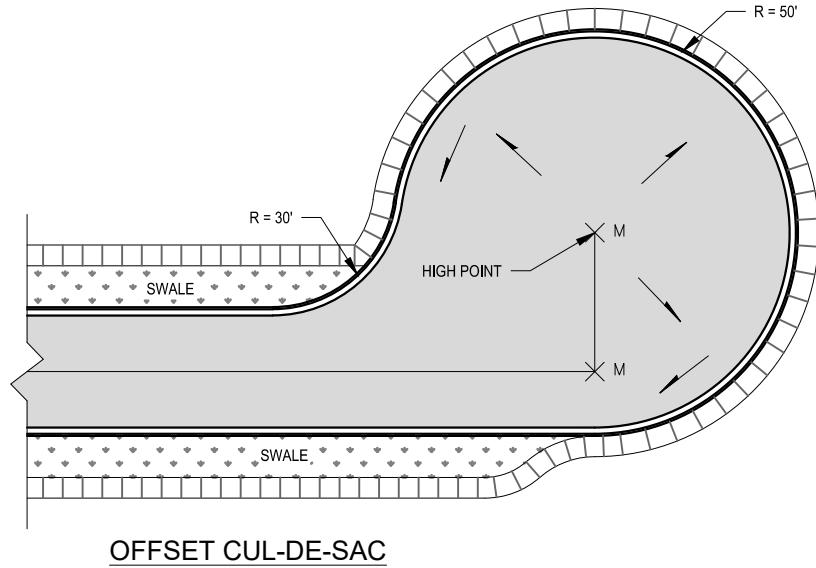
LONGITUDINAL STEP
WEDGE COLD JOINT

STANDARD PLAN NO.
R-127

PUBLICATION DATE: 03/2025

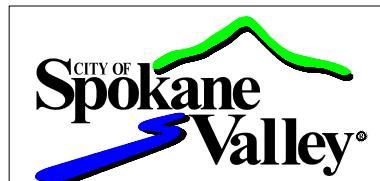
REVISION NO.: 01





GENERAL NOTES:

1. M = MONUMENT LOCATIONS, ER = END RETURN, SI = STREET INTERSECTION.
2. ADA RAMPS WILL BE INSTALLED BEFORE THE ER IF THE SIDEWALK IS NOT INSTALLED AROUND CUL-DE-SAC.
3. SIDEWALK AROUND BULB IS OPTIONAL, IF PROVIDED, SIDEWALK MAY BE SEPARATED OR ADJACENT. IF ADJACENT THE SIDEWALK SHALL BE 6.0' WIDE.
4. RADIUS SHOWN IS TO FACE OF CURB.
5. THE WIDTH OF RIGHT-OF-WAY AND THE STREET DIMENSIONS SHALL CONFORM TO THE CLASSIFIED STREET SECTION.
6. MINIMUM CURB GRADES ON CUL-DE-SAC SHALL BE 1%.
7. PUBLIC STREETS W/ STUBS ENDS ARE LIMITED TO 600' MEASURED FROM THE SI TO THE ER OF THE CUL-DE-SAC OR THE TERMINUS OF THE TRAVELWAY.
8. NON-MOTORIZED PATHS (7.5.11) TO ADJACENT ARTERIALS OR PUBLIC FACILITIES, SUCH AS SCHOOLS/PARKS MAY BE REQUIRED AT THE DEAD-END OF THE STREET TO SHORTEN WALKING DISTANCES.



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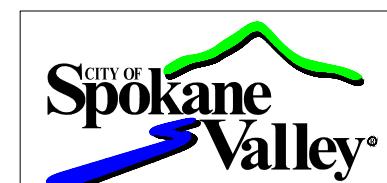
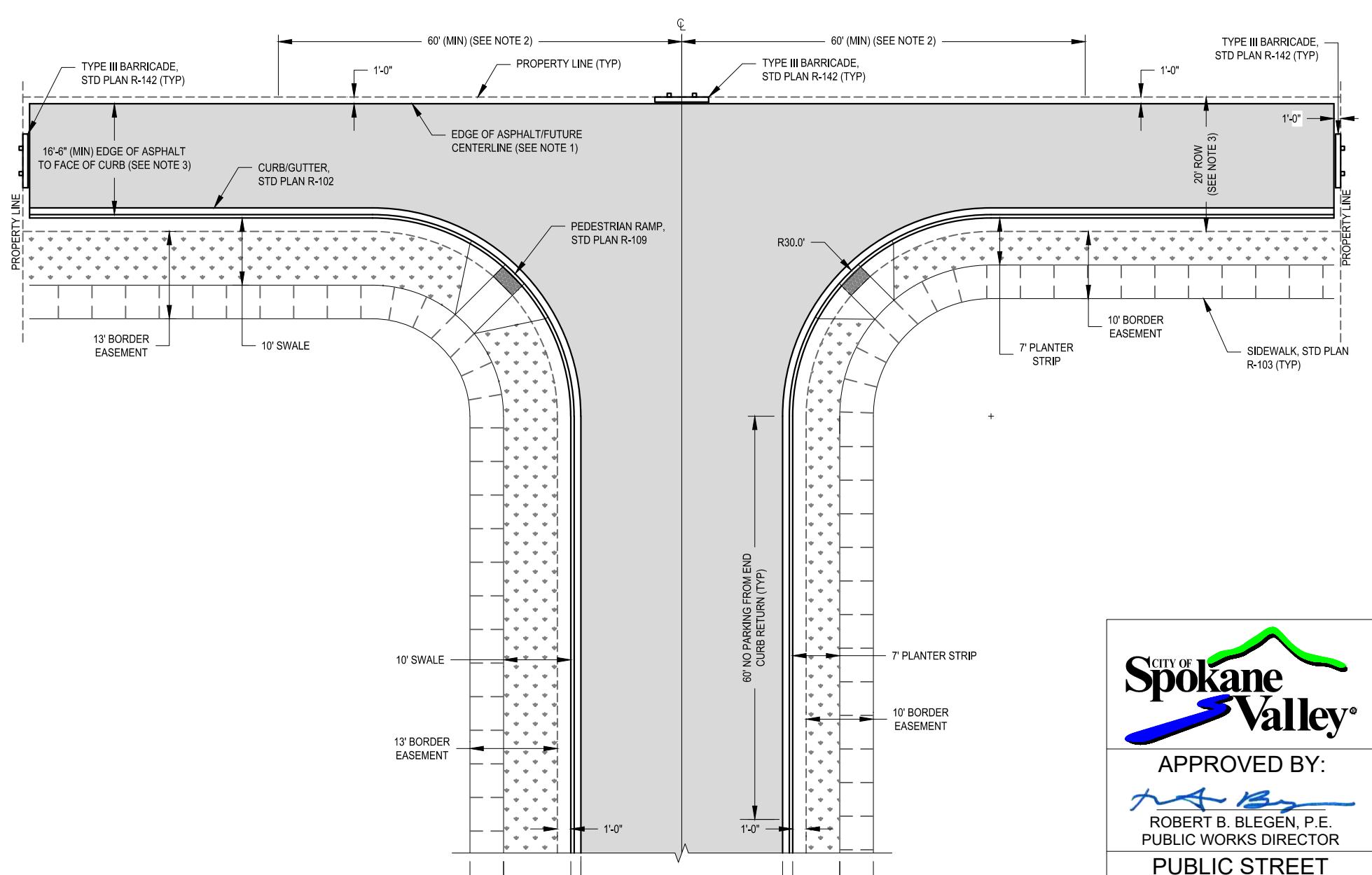
ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

CUL-DE-SAC PUBLIC
STREETS

STANDARD PLAN NO.
R-130

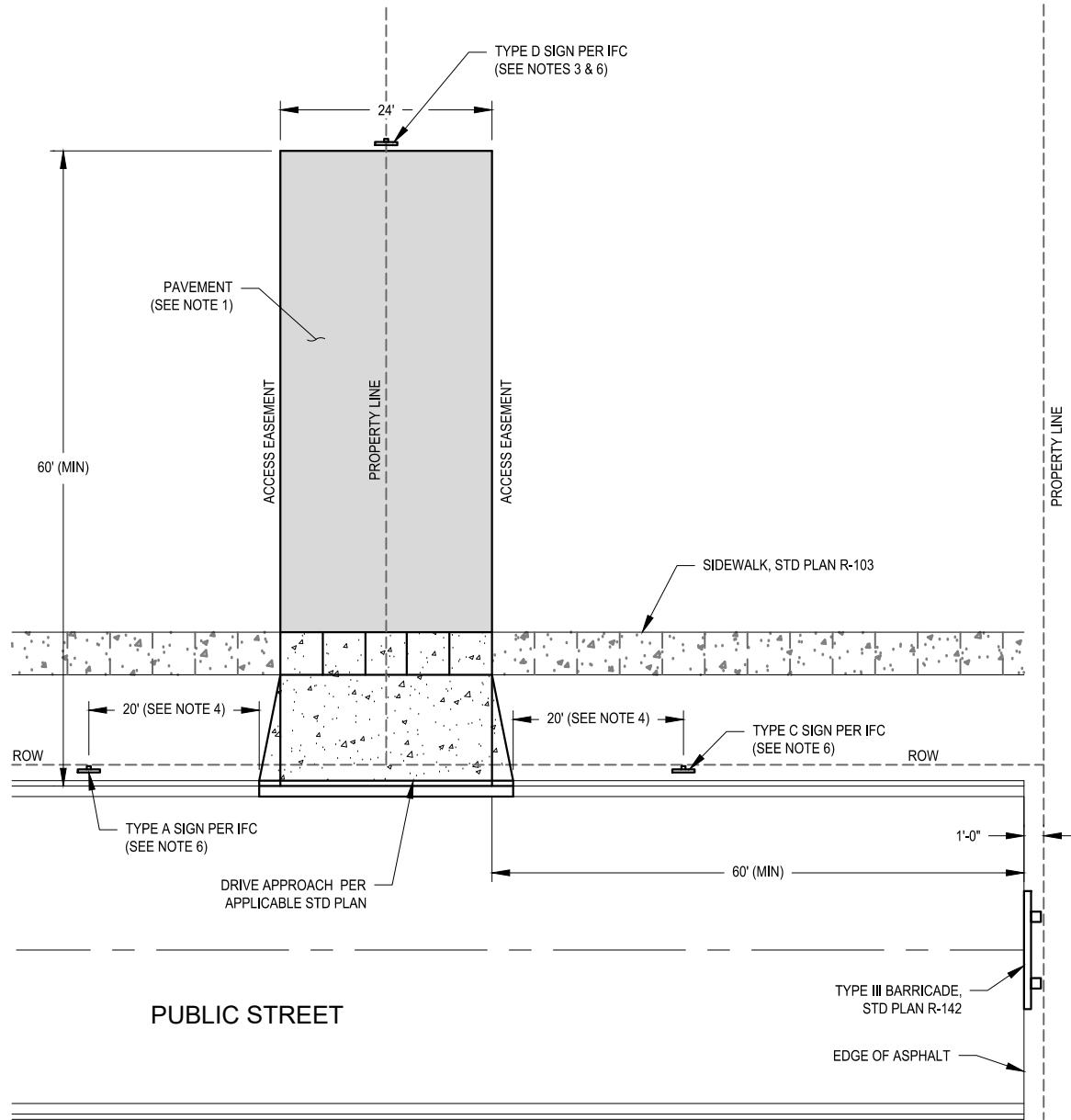
PUBLICATION DATE: 03/2025

REVISION NO.: 01



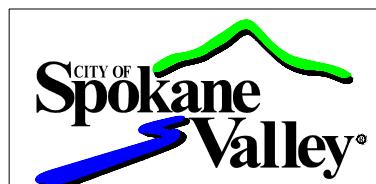
APPROVED BY:

ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTORPUBLIC STREET
TURNAROUND
(FUTURE INTERSECTION)STANDARD PLAN NO.
R-131PUBLICATION DATE: 03/2025
REVISION NO.: 01



GENERAL NOTES:

1. TEMPORARY TURNAROUND ASPHALT SHALL BE MIN. 3" HMA OVER 6" COMPACTED CSTC OR 6" CONCRETE OVER 4" CSTC.
2. TURNAROUND TO BE WITHIN PUBLIC ACCESS EASEMENT DEDICATED TO THE CITY OF SPOKANE VALLEY.
3. TURNAROUND TO BE SIGNED "PUBLIC STREET TURNAROUND". OR AS REQUIRED BY FIRE DEPARTMENT.
4. STREET SHALL BE SIGNED "NO PARKING - FIRE LANE" FOR 20' ADJACENT TO DRIVE APPROACH.
5. TURNAROUND IS NOT TO BE USED AS A DRIVEWAY OR FOR DRIVEWAY ACCESS.
6. ALL SIGNS SHALL BE PER IFC.

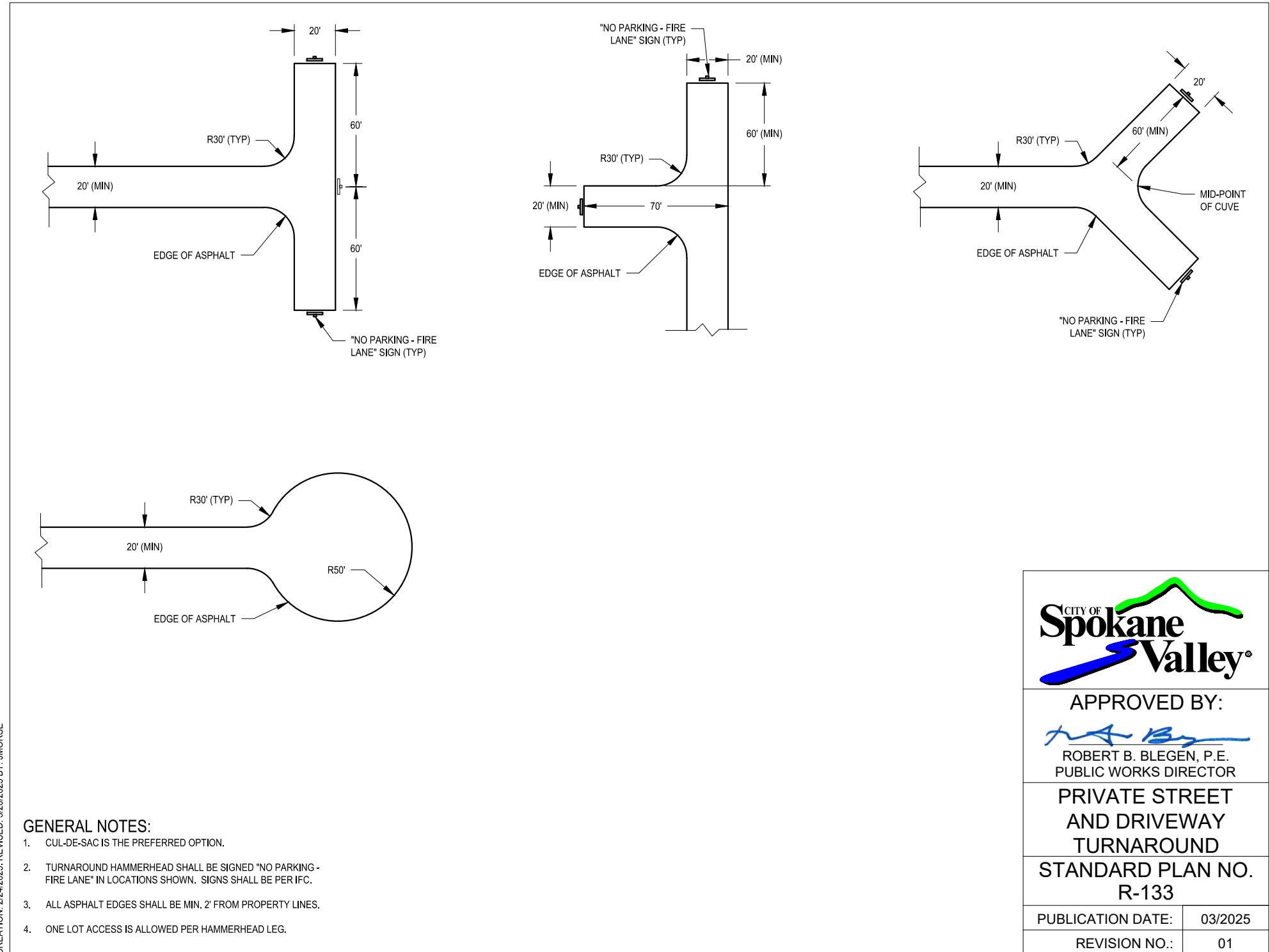


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ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

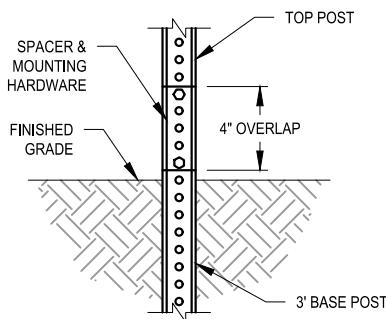
PUBLIC STREET
TEMPORARY
TURNAROUND
STANDARD PLAN NO.
R-132

PUBLICATION DATE: 03/2025
REVISION NO.: 01

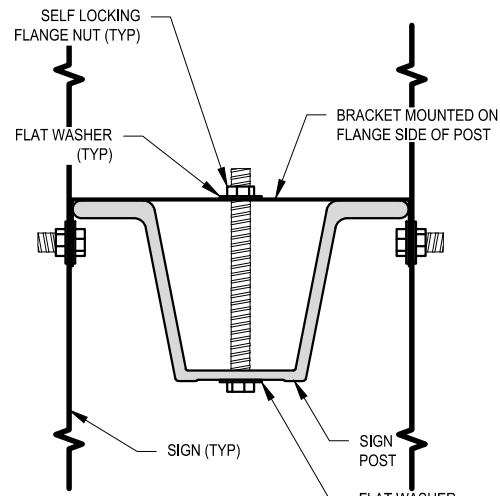


GENERAL NOTES:

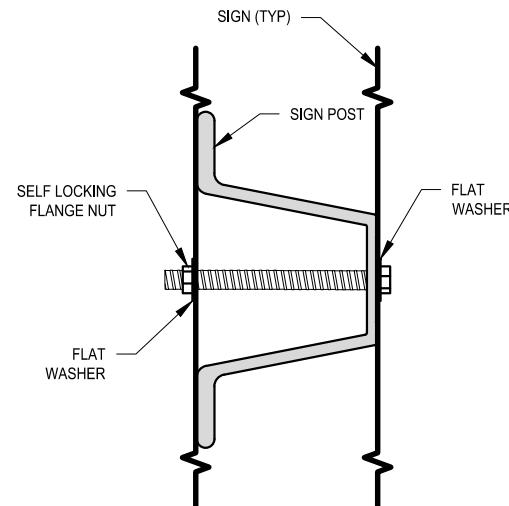
1. SIGN TYPE, INSTALLATION AND APPLICATION SHALL CONFORM TO THE CURRENT EDITION OF THE M.U.T.C.D.
2. POST WEIGHT SHALL BE 3 LBS. PER FOOT.
3. ALL BASE POST AND TOP POST SHALL BE MARION STEEL, 3 LB., GREEN POWDER-COATED RIB-BACK POST.



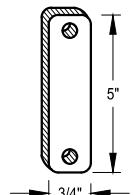
POST CONNECTION



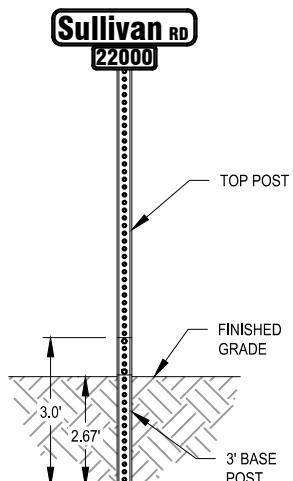
SIGN INSTALLATION (WITH SIGN BRACKET)



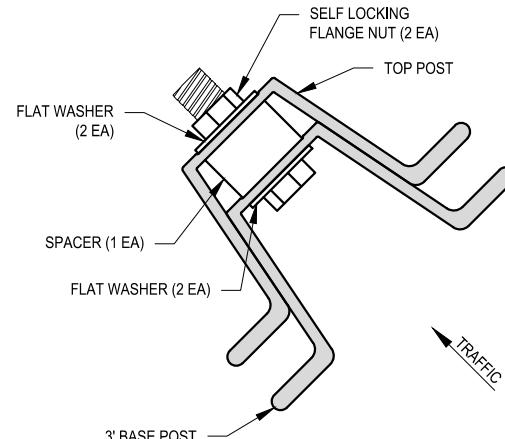
SIGN INSTALLATION (ON POST)



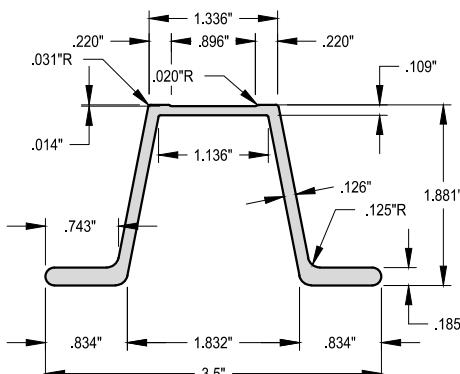
SPACER



SIGN SUPPORT SYSTEM

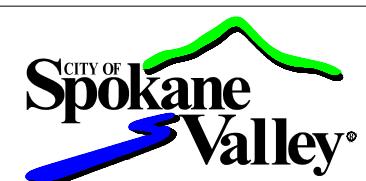


SIGN POST LAP SPLICING



WITH 3/8" DIA. HOLE
AREA = 0.840 SQ. FT.

POST CROSS SECTION



APPROVED BY:

Tabby

ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

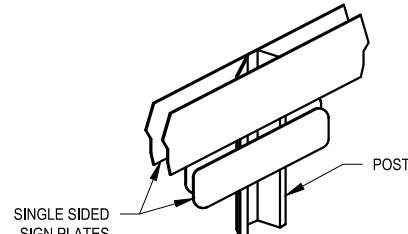
SIGN AND POST INSTALLATION

**STANDARD PLAN NO.
R-139**

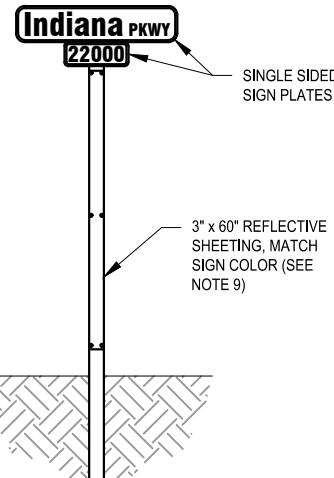
PUBLICATION DATE: 03/2025
REVISION NO.: 00

GENERAL NOTES:

1. THIS STANDARD PLAN IS TO BE USED AT ALL ARTERIAL INTERSECTIONS WITH ANY STREET, LANE, OR OTHER ARTERIAL.
2. SIGNS SHALL MEET SPECIFICATIONS FOR FLAT PLATE ALUMINUM, 0.08" THICK, ALODINE 1200 OR EQUAL.
3. THE SIGN SURFACE SHALL BE WHITE LETTERS ON A GREEN BACKGROUND. LETTERS AND BACKGROUND SHALL BE HIGH INTENSITY RETRO-REFLECTIVE SHEETING.
4. LETTERS SHALL BE A BLOCK TYPE FONT.
5. THE ROADWAY LABEL MAY BE OMITTED FOR "STREET", "ROAD", AND "AVENUE". ALL OTHER ROADWAYS SHALL INCLUDE THE ABBREVIATED LABEL (I.E.: COURT - CT, PARKWAY - PKWY, ETC.) ROADWAY LABELS SHALL BE UPPERCASE.
6. SIGN INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF THE M.U.T.C.D.
7. SIGN POST INSTALLATION AND SIGN MOUNTING SHALL BE PER STANDARD PLAN R-139 SIGN AND POST INSTALLATION.
8. SIGN PLATES ARE SINGLE SIDED.
9. ALL POSTS, UNLESS STREET NAME SIGN ONLY, SHALL HAVE POST MOUNTED 3 INCH x 60 INCH REFLECTIVE SHEETING. COLOR SHALL MATCH SIGN.



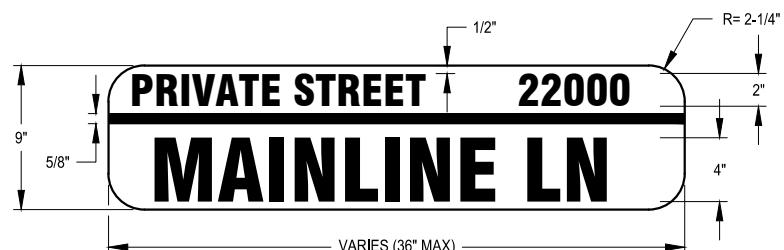
TYPICAL SIGN INSTALLATION
(SINGLE SIDED PLATE MOUNTING)



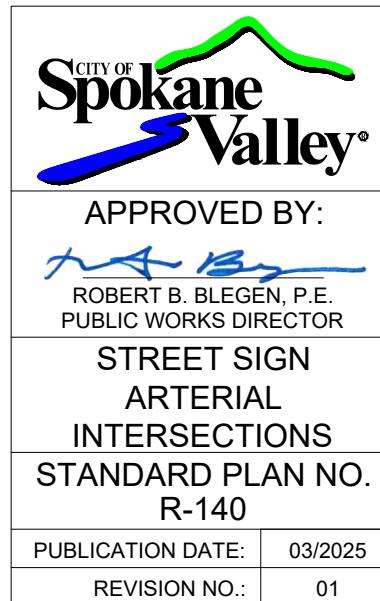
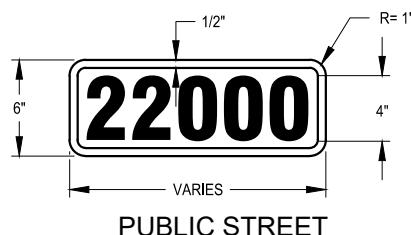
POST MOUNTED REFLECTIVE SHEETING



PUBLIC STREET

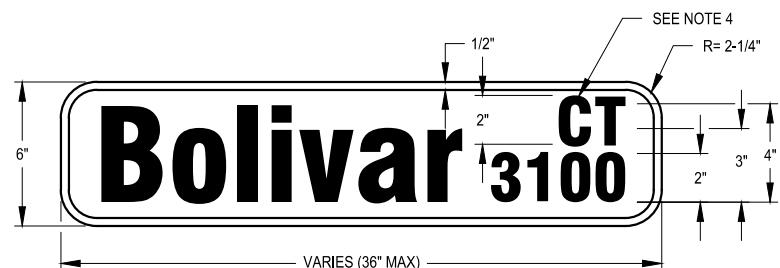


PRIVATE STREET

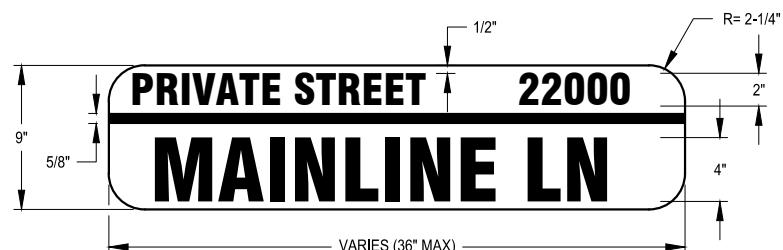


GENERAL NOTES:

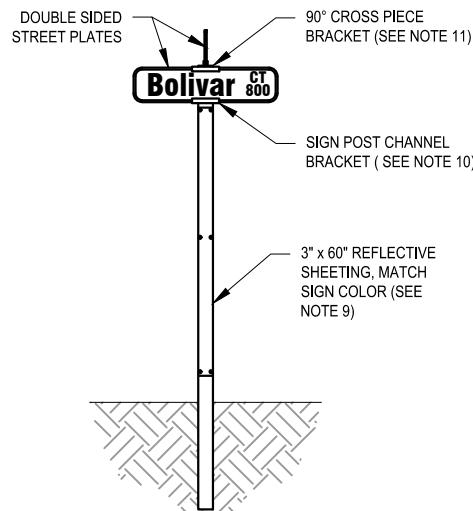
1. THIS STANDARD PLAN IS TO BE USED AT ALL LOCAL/LOCAL AND LOCAL/PRIVATE INTERSECTIONS. FOR ARTERIAL INTERSECTIONS SEE STANDARD PLAN R-140
2. SIGNS SHALL MEET SPECIFICATIONS FOR FLAT PLATE ALUMINUM, 0.08" THICK, ALODINE 1200 OR EQUAL.
3. THE SIGN SURFACE SHALL BE WHITE LETTERS ON A GREEN BACKGROUND. LETTERS AND BACKGROUND SHALL BE HIGH INTENSITY RETRO-REFLECTIVE SHEETING.
4. LETTERS SHALL BE A BLOCK TYPE FONT.
5. THE ROADWAY LABEL MAY BE OMITTED FOR "STREET", "ROAD", AND "AVENUE". ALL OTHER ROADWAYS SHALL INCLUDE THE ABBREVIATED LABEL (I.E.: COURT - CT, PARKWAY - PKWY, ETC.) ROADWAY LABELS SHALL BE UPPERCASE.
6. SIGN INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF THE M.U.T.C.D.
7. SIGN POST INSTALLATION AND SIGN MOUNTING SHALL BE PER STANDARD PLAN R-139 SIGN & POST INSTALLATION.
8. SIGN PLATES ARE DOUBLE SIDED.
9. ALL SIGNS SHALL HAVE POST MOUNTED 3 INCH x 60 INCH REFLECTIVE SHEETING ON POST. COLOR SHALL MATCH SIGN.
10. STREET PLATE SHALL BE ATTACHED TO SIGN POST USING A STREET SIGN CHANNEL BRACKET WITH A 5.25 IN TO 5.50 IN RECEIVER FOR FLAT PLATES.
11. THE UPPER STREET PLATE SHALL BE ATTACHED TO LOWER STREET PLATE USING A 90° CROSS PIECE BRACKET WITH A 5.25 IN TO 5.50 IN RECEIVER FOR FLAT PLATES.



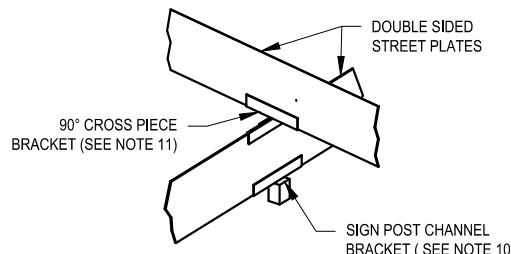
PUBLIC STREET



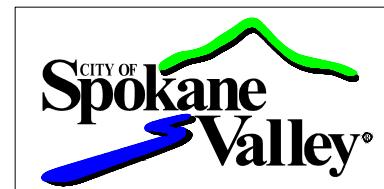
PRIVATE STREET



POST MOUNTED REFLECTIVE SHEETING



TYPICAL SIGN INSTALLATION
(DOUBLE SIDED PLATE MOUNTING)



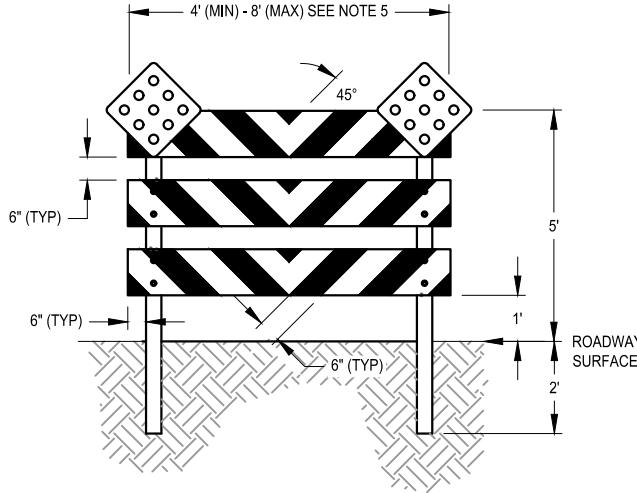
APPROVED BY:

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PUBLIC WORKS DIRECTOR

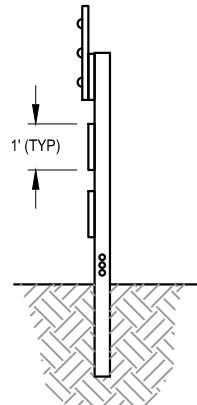
STREET SIGNS
LOCAL
INTERSECTIONS
STANDARD PLAN NO.
R-141

PUBLICATION DATE: 03/2025

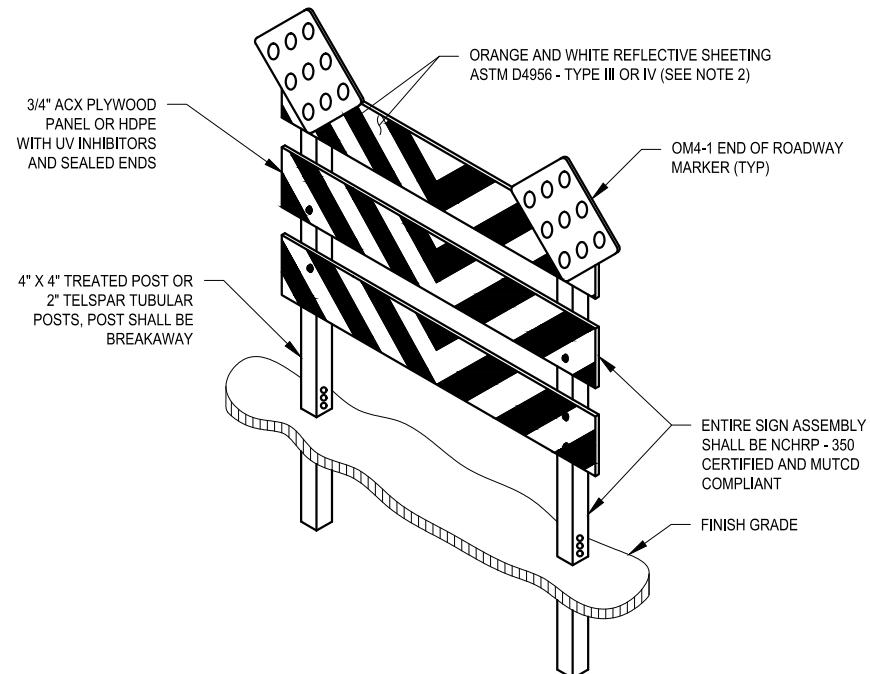
REVISION NO.: 01



ELEVATION VIEW



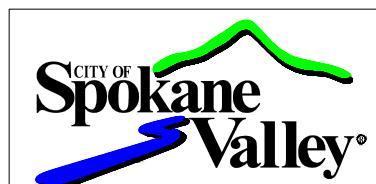
SIDE VIEW



ISOMETRIC VIEW

GENERAL NOTES:

1. ALL FASTENERS SHALL BE ZINC PLATED, GALVANIZED OR STAINLESS STEEL. ALL STEEL ANGLE AND TUBULAR STEEL SHALL BE HOT-ROLLED, HIGH CARBON STEEL, PAINTED OR GALVANIZED.
2. STRIPES ON BARRICADE RAILS SHALL BE ALTERNATING ORANGE AND WHITE RETRO-REFLECTIVE STRIPS SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TOWARDS THE CENTER.
3. FUTURE CONNECTION SIGN SHALL BE MOUNTED ON BARRICADE WHEN REQUIRED BY THE CITY.
4. WHEN A SIGN IS MOUNTED ON THE BARRICADE, IT SHALL BE SECURELY BOLTED TO AT LEAST TWO PLYWOOD PANELS. THE TOP OF THE SIGN SHALL NOT BE HIGHER THAN THE TOP PANEL OF THE BARRICADE.
5. THE BARRICADE WIDTH SHALL COVER AT LEAST 50% OF THE ROAD WIDTH WITH GAPS NO LARGER THAN 4 FEET BETWEEN BARRICADES.

FUTURE CONNECTION SIGN DETAILS
(SEE NOTES 4 & 5)

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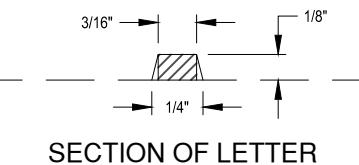
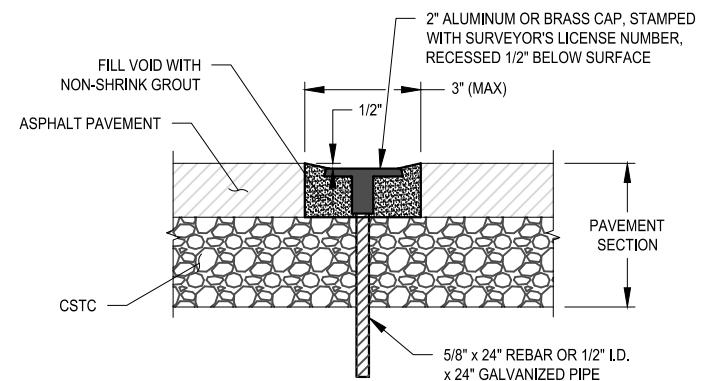
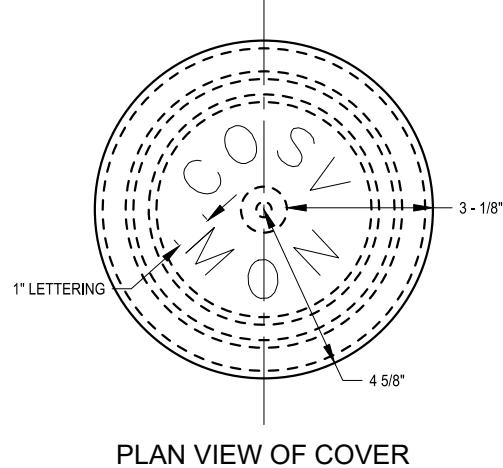
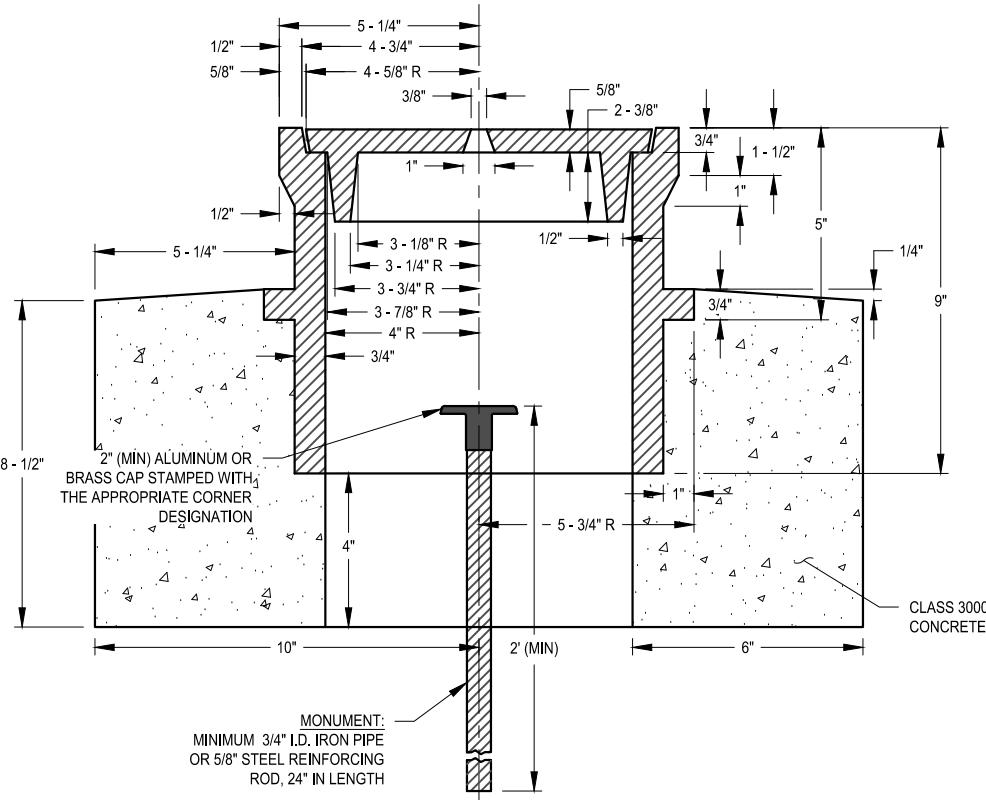
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PUBLIC WORKS DIRECTOR

TYPE III BARRICADE

STANDARD PLAN NO.
R-142

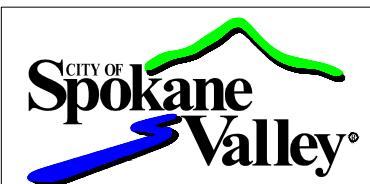
PUBLICATION DATE: 03/2025

REVISION NO.: 02



GENERAL NOTES:

1. THE CASTINGS SHALL BE GRAY IRON CASTINGS, AASHTO DESIGNATION M-105, CLASS 30B. THE COVER AND SEAT SHALL BE MACHINED SO AS TO HAVE CONTACT AROUND THE ENTIRE CIRCUMFERENCE AND FULL WIDTH OF BEARING SURFACE.
2. WHEN THE MONUMENT CASE AND COVER ARE PLACED IN CEMENT CONCRETE PAVEMENT THE CONCRETE BASE IS NOT NEEDED.
3. MONUMENT TYPE I TO BE USED FOR PLACING NEW OR REPLACEMENT OF SECTION CORNERS, QUARTER CORNERS, CLOSING CORNERS, WITNESS CORNERS, AND MEANDER CORNERS.
4. MONUMENT TYPE II TO BE USED FOR NEW OR REPLACEMENT OF ROAD INTERSECTION POINTS, ROAD CENTERLINE ANGLE POINTS, AND CURVE POINTS.
5. A 5/8" REBAR DRIVEN INTO THE ASPHALT, RECESSED 1/2" WITH A PLASTIC CAP IS AN ACCEPTABLE ALTERNATIVE, FOR A TYPE II MONUMENT, IN NEWLY CONSTRUCTED ROADS. THE PLASTIC CAP SHALL BE STAMPED WITH SURVEYOR'S LICENSE NUMBER.
6. REFER TO SECTION 7.5.15.2 FOR ADDITIONAL DETAILS.



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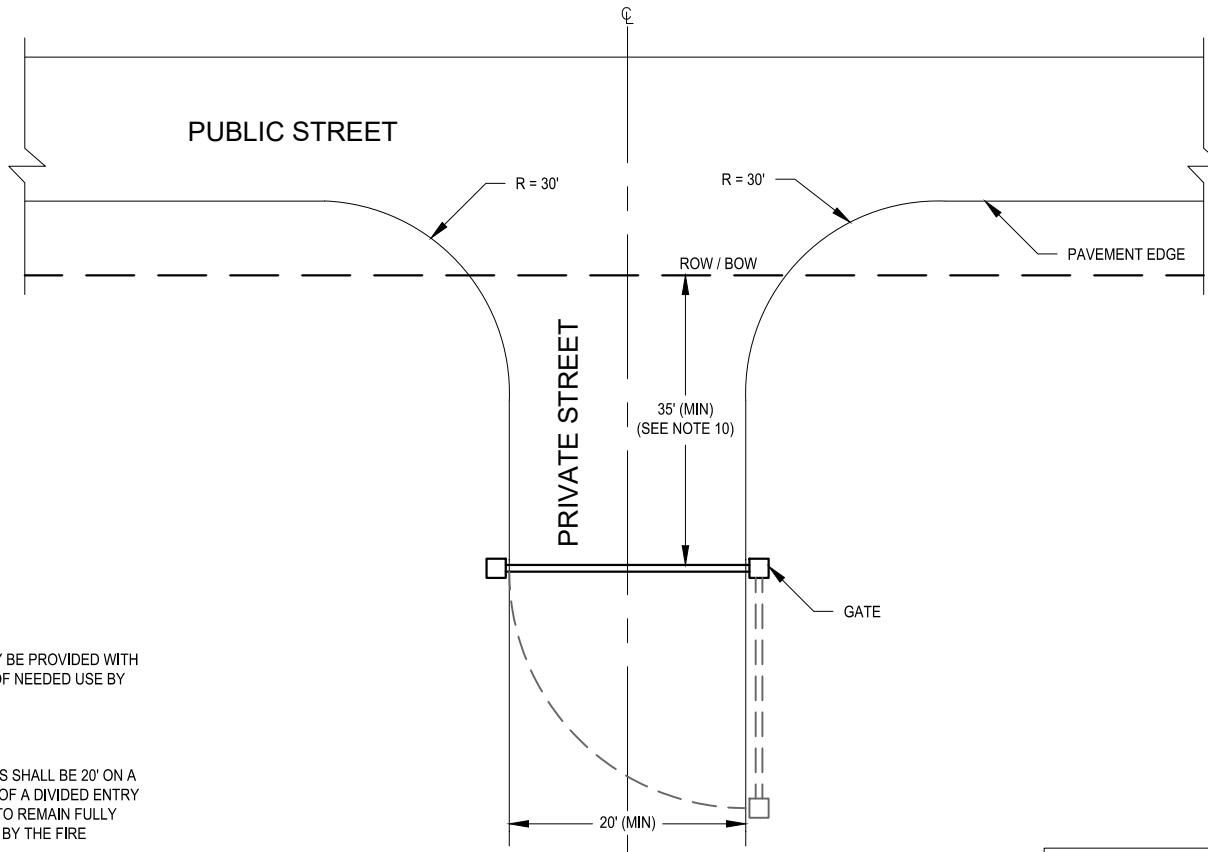
ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

SURVEY MONUMENTS

STANDARD PLAN NO.
R-145

PUBLICATION DATE: 03/2025

REVISION NO.: 01



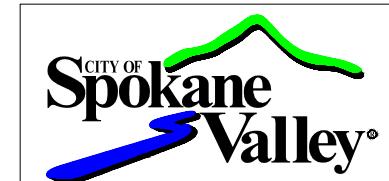
GENERAL NOTES:

TEMPORARY ACCESS RESTRICTIONS DURING CONSTRUCTION

1. TEMPORARY GATES ON REQUIRED FIRE LANE ACCESS ROADWAYS MAY BE PROVIDED WITH A CHAIN AND LOCK. THE CHAIN LINK WILL BE SEVERED IN THE EVENT OF NEEDED USE BY THE FIRE DEPARTMENT.

PERMANENT ACCESS RESTRICTING GATES

2. CLEAR UNOBSTRUCTED MINIMUM ACCESS WIDTH OF AUTOMATIC GATES SHALL BE 20' ON A SINGLE GATED ROADWAY WHEN FULLY OPENED; OR 14' ON EACH SIDE OF A DIVIDED ENTRY GATED ROADWAY WHEN FULLY OPENED. GATES SHALL BE DESIGNED TO REMAIN FULLY OPEN ONCE ACTIVATED BY THE FIRE DEPARTMENT AND UNTIL CLOSED BY THE FIRE DEPARTMENT (UNLESS STAFFED 24 HOURS/DAY, 365 DAYS/YEAR).
3. SWINGING GATES SHALL SWING INWARDS AWAY FROM THE PUBLIC STREET AND SHALL NOT INTERFERE WITH MINIMUM EMERGENCY VEHICLE TURNING RADIUS.
4. PERMANENT AUTOMATIC UNATTENDED GATES ON REQUIRED FIRE LANE ACCESS ROADWAYS SHALL BE PROVIDED WITH A KNOX KEY SWITCH UNLESS PROVIDED WITH AN OPTICOM COMPATIBLE STROBE ACTIVATED OPENING DEVICE.
5. ANY FAILURES OF REQUIRED GATE SWITCHES SHALL RESULT IN THE REQUIREMENT THAT THE GATE REMAIN IN THE OPEN POSITION UNTIL REPAIRS ARE COMPLETED.
6. ELECTRICALLY OPERATED GATES SHALL BE MANUALLY OPERABLE IN THE EVENT OF POWER FAILURE UNLESS SUPPLIED WITH BACKUP EMERGENCY POWER.
7. IN THE EVENT A GATE FAILS TO OPERATE, REQUIRING THE FIRE DEPARTMENT TO FORCE THE GATE OPEN FOR ACCESS, THE FIRE DEPARTMENT SHALL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY OPENING THE GATE.
8. PLANS AND SPECIFICATIONS OF GATE ASSEMBLY AND LOCATION SHALL BE SUBMITTED FOR REVIEW, APPROVAL, AND INSPECTION PRIOR TO CONSTRUCTION. IN THE EVENT THAT A CONFLICT EXISTS IN ACCESS REQUIREMENTS WITH CITY OF SPOKANE VALLEY, THE MORE RESTRICTIVE REQUIREMENT SHALL PREVAIL. GATES SHALL BE APPROVED BY THE FIRE DEPARTMENT AND THE CITY OF SPOKANE VALLEY.
9. FINAL APPROVAL OF A GATE IS CONTINGENT ON FIRE DEPARTMENT TESTING AND ACCEPTANCE. FIRE MARSHAL WILL ARRANGE FOR EMERGENCY APPARATUS TESTING PRIOR TO APPROVAL.
10. 35' MINIMUM FROM RIGHT OF WAY (ROW) OR BACK OF WALK (BOW) WHICHEVER IS GREATER.



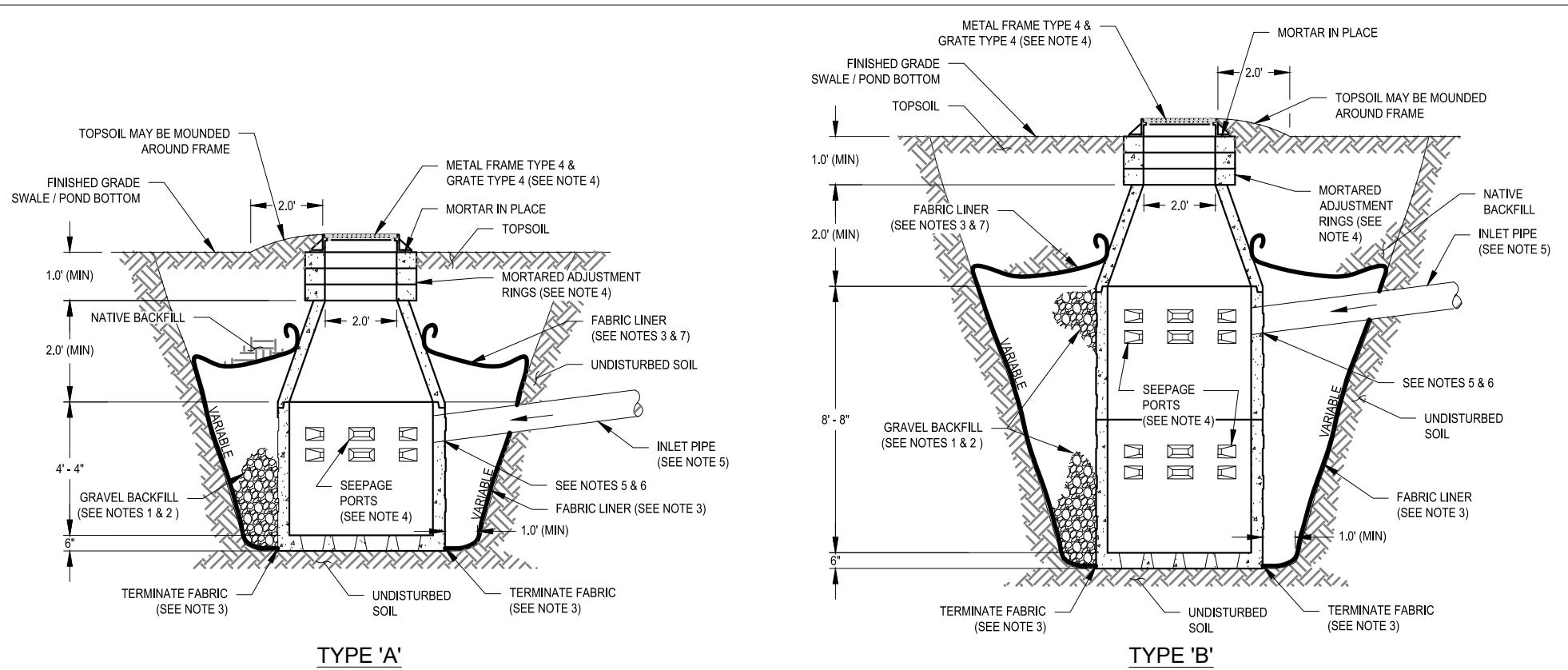
APPROVED BY:

ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTOR

GATED ACCESS REQUIREMENTS

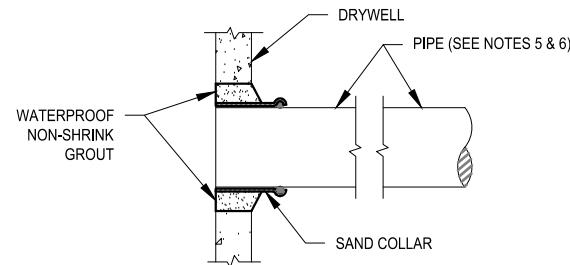
STANDARD PLAN NO.
R-150

PUBLICATION DATE: 03/2025
REVISION NO.: 02



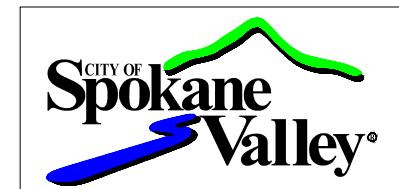
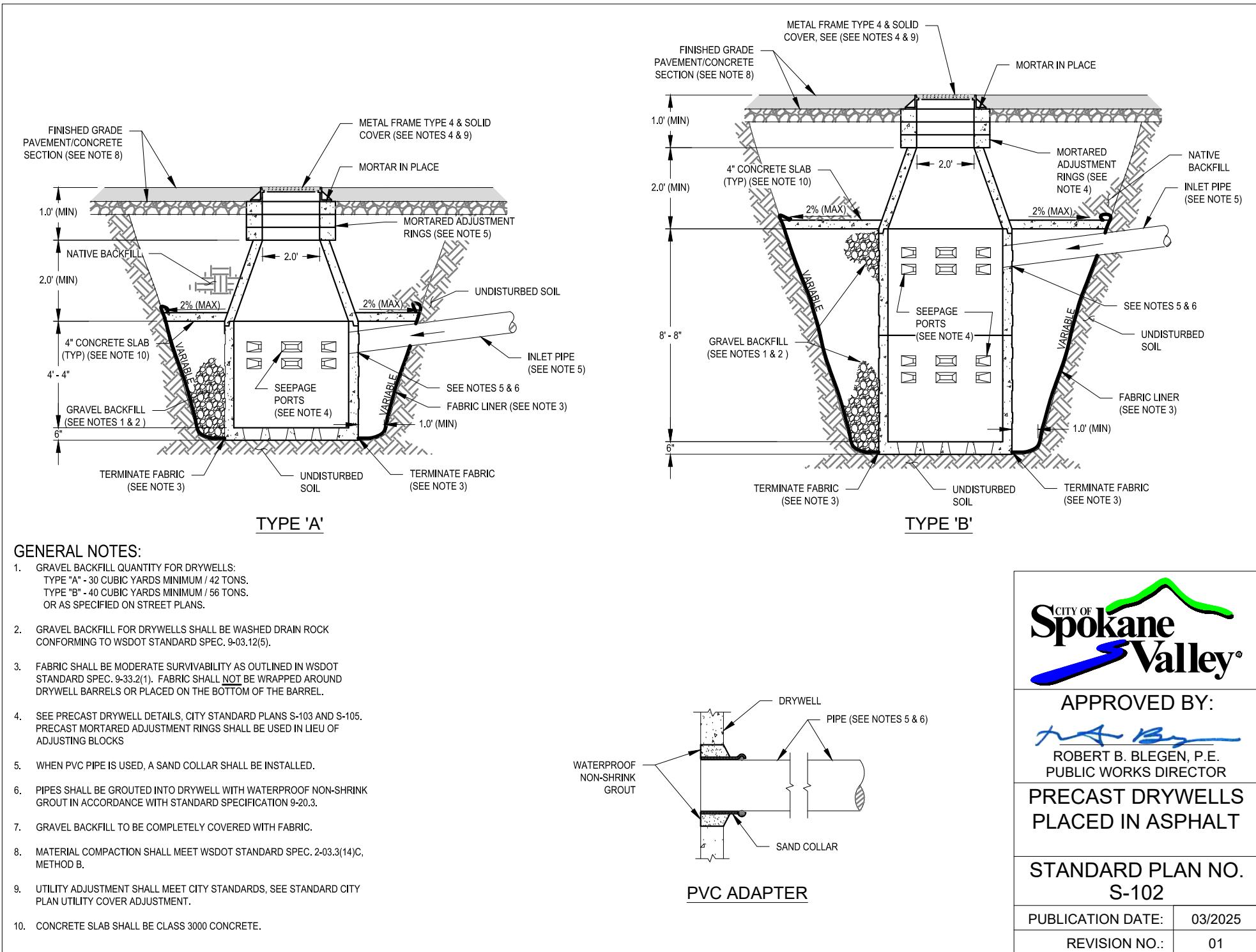
GENERAL NOTES:

1. GRAVEL BACKFILL QUANTITY FOR DRYWELLS:
TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS.
TYPE "B" - 40 CUBIC YARDS MINIMUM / 56 TONS.
OR AS SPECIFIED ON STREET PLANS.
2. GRAVEL BACKFILL FOR DRYWELLS SHALL BE WASHED DRAIN ROCK CONFORMING TO WSDOT STANDARD SPEC. 9-03.12(5).
3. FABRIC SHALL BE MODERATE SURVIVABILITY AS OUTLINED IN WSDOT STANDARD SPEC. 9-33.2(1). FABRIC SHALL NOT BE WRAPPED AROUND DRYWELL BARRELS OR PLACED ON THE BOTTOM OF THE BARREL.
4. SEE PRECAST DRYWELL DETAILS, CITY STANDARD PLANS S-103 AND S-105. PRECAST MORTARED ADJUSTMENT RINGS SHALL BE USED IN LIEU OF ADJUSTING BLOCKS
5. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
6. PIPES SHALL BE GROUTED INTO DRYWELL WITH WATERPROOF NON-SHRINK GROUT IN ACCORDANCE WITH STANDARD SPECIFICATION 9-20.3.
7. GRAVEL BACKFILL TO BE COMPLETELY COVERED WITH FABRIC.



PVC ADAPTER

	
APPROVED BY:	
	
ROBERT B. BLEGEN, P.E. PUBLIC WORKS DIRECTOR	
PRECAST DRYWELLS PLACED IN SWALE	
STANDARD PLAN NO. S-101	
PUBLICATION DATE:	03/2025
REVISION NO.:	01



APPROVED BY:

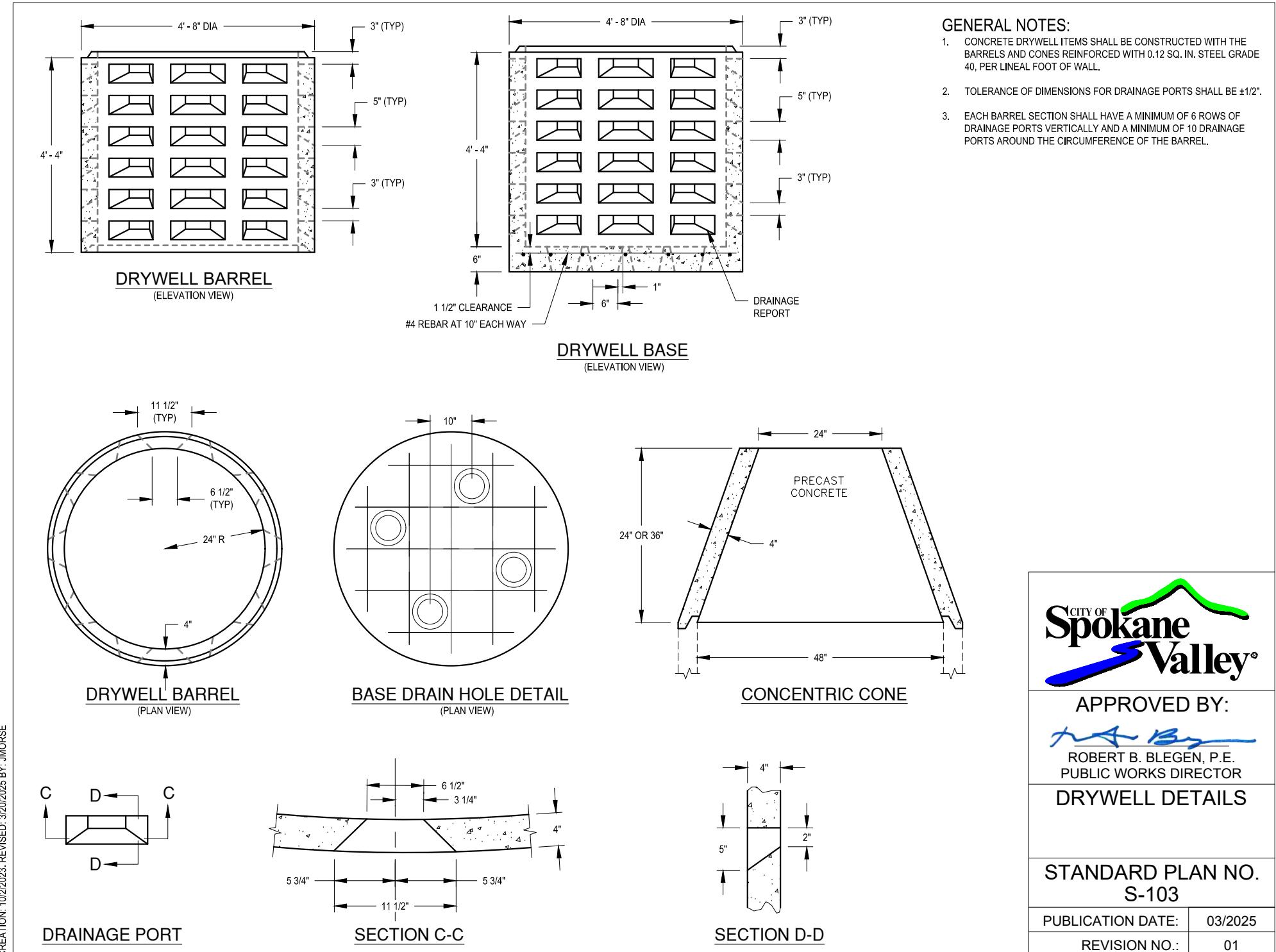
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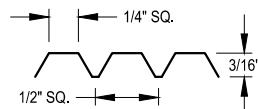
**PRECAST DRYWELLS
PLACED IN ASPHALT**

**STANDARD PLAN NO.
S-102**

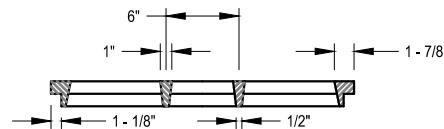
PUBLICATION DATE: 03/2025

REVISION NO.: 01

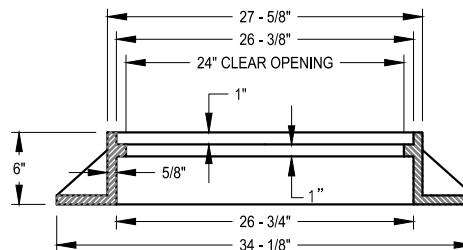




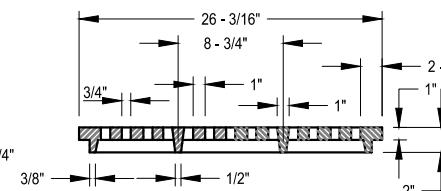
COVER SKID DESIGN DETAIL



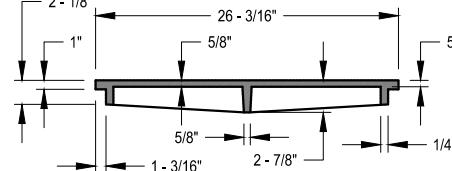
SECTION J-J



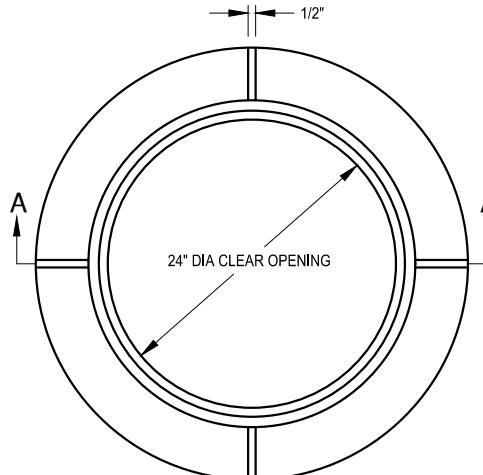
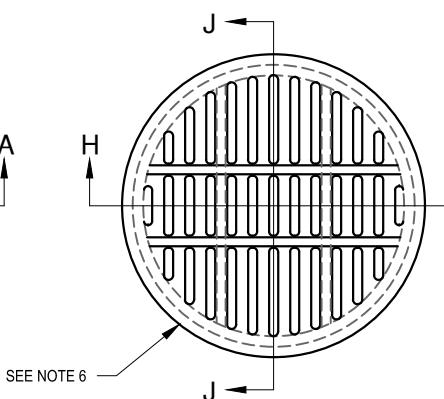
SECTION A-A



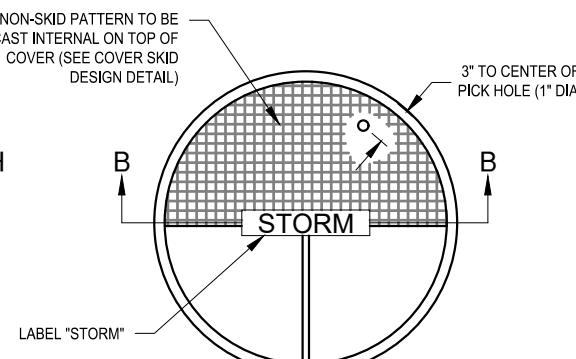
SECTION H-H



SECTION B-B

FRAME - TYPE 4
MINIMUM WEIGHT: 168 LBS

GRATE - TYPE 4

SOLID COVER
MINIMUM WEIGHT: 118 LBS

GENERAL NOTES:

1. FRAME SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48-90, GRADE 30. THE GRATE SHALL BE DUCTILE IRON CONFORMING TO A.S.T.M. A536-84, CLASS 80-55-06.
2. METAL FRAME AND GRATE TYPE 4 SHALL ONLY BE USED WHERE SHOWN ON THE CONSTRUCTION PLANS. IT SHALL NOT BE USED AT A CURB LINE.
3. DRAINAGE SLOTS SHALL BE PLACED PARALLEL TO THE DIRECTION OF FLOW.
4. FIT TOLERANCE SHALL BE 1/8".
5. WELDING IS NOT PERMITTED.

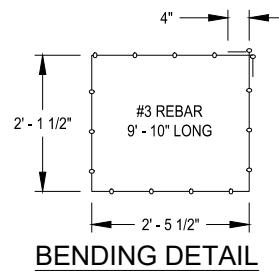
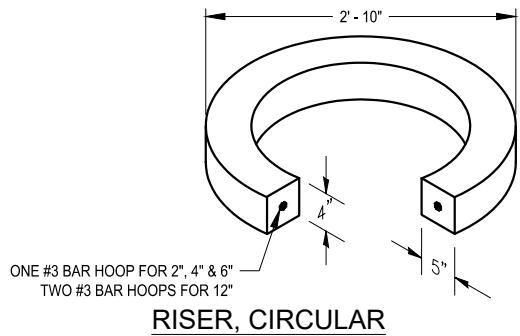


APPROVED BY:

ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTORDRYWELL FRAME
AND GRATESSTANDARD PLAN NO.
S-104

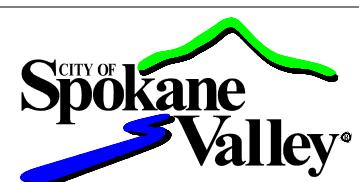
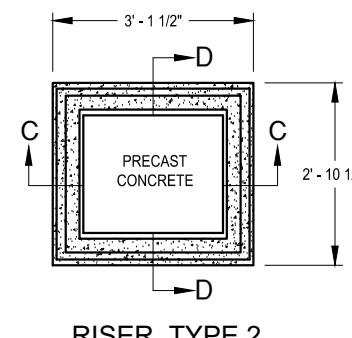
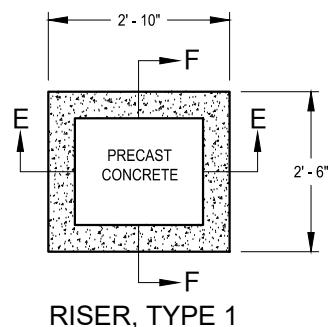
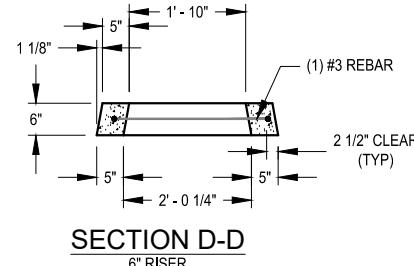
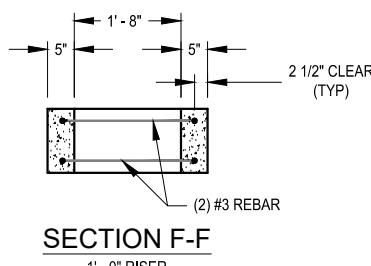
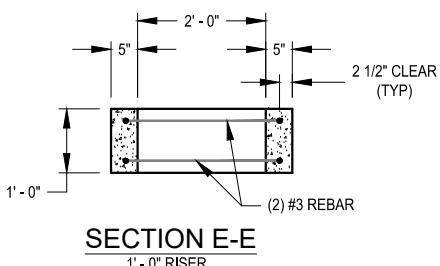
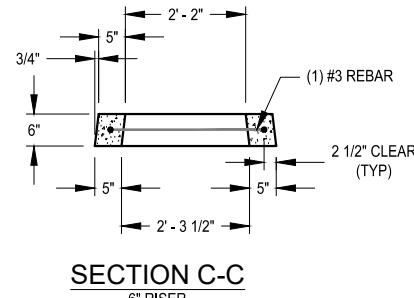
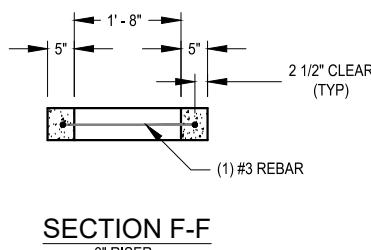
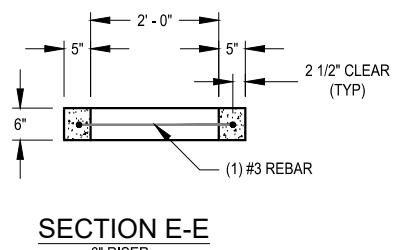
PUBLICATION DATE: 03/2025

REVISION NO.: 02



GENERAL NOTES:

1. CONCRETE ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 (AASHTO M199) & ASTM C-890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.



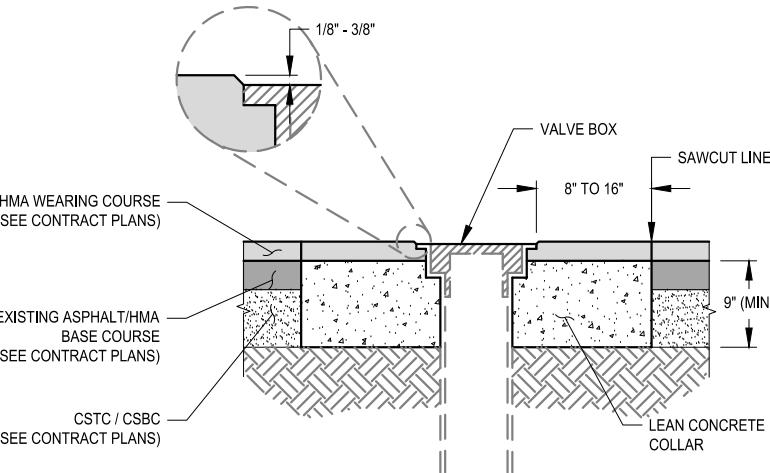
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PRECAST RISERS

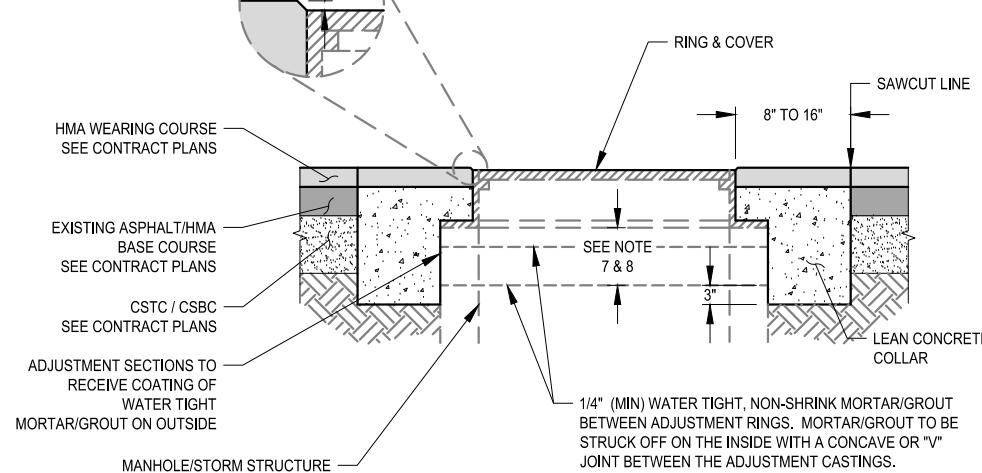
STANDARD PLAN NO.
S-105PUBLICATION DATE: 03/2025
REVISION NO.: 01

CREATION: 6/11/2025, REVISED: 6/11/2025 BY: JMORSE



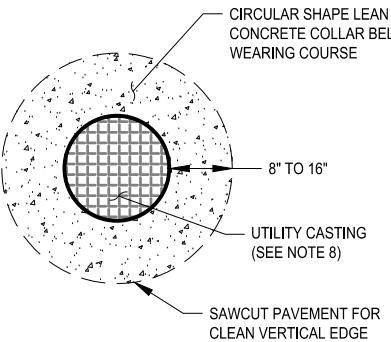
ELEVATION VIEW - VALVE

Diagram showing the cross-section of a valve box. Labels include: HMA WEARING COURSE (SEE CONTRACT PLANS), EXISTING ASPHALT/HMA BASE COURSE (SEE CONTRACT PLANS), CSTM / CSBC (SEE CONTRACT PLANS), VALVE BOX, SAWCUT LINE, 8" TO 16", 9" (MIN), and LEAN CONCRETE COLLAR. A callout shows a circular detail with a depth of 1/8" - 3/8".



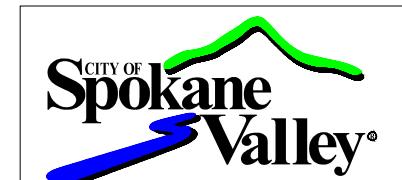
ELEVATION VIEW - MANHOLE/STORM STRUCTURE

Diagram showing the cross-section of a manhole/storm structure. Labels include: HMA WEARING COURSE SEE CONTRACT PLANS, EXISTING ASPHALT/HMA BASE COURSE SEE CONTRACT PLANS, CSTM / CSBC SEE CONTRACT PLANS, ADJUSTMENT SECTIONS TO RECEIVE COATING OF WATER TIGHT MORTAR/GROUT ON OUTSIDE, MANHOLE/STORM STRUCTURE, RING & COVER, SAWCUT LINE, 8" TO 16", 3", and LEAN CONCRETE COLLAR. A callout shows a circular detail with a depth of 1/8" - 3/8". A note states: 1/4" (MIN) WATER TIGHT, NON-SHRINK MORTAR/GROUT BETWEEN ADJUSTMENT RINGS. MORTAR/GROUT TO BE STRUCK OFF ON THE INSIDE WITH A CONCAVE OR "V" JOINT BETWEEN THE ADJUSTMENT CASTINGS.



PLAN VIEW

Diagram showing the circular plan view of a utility casting. Labels include: CIRCULAR SHAPE LEAN CONCRETE COLLAR BELOW WEARING COURSE, 8" TO 16", UTILITY CASTING (SEE NOTE 8), and SAWCUT PAVEMENT FOR CLEAN VERTICAL EDGE.



CITY OF Spokane Valley®

GENERAL NOTES:

1. UTILITY ADJUSTMENTS ARE TO BE COMPLETED AFTER PLACING THE FINAL HMA LIFT.
2. UTILITY COVERS SUCH AS FRAMES, GRATES AND LIDS FOR SEWER MANHOLES, STORMWATER MANHOLES AND CATCH BASINS, WATER VALVE BOXES, GAS VALVE BOXES, COMMUNICATION AND POWER VAULTS, MONUMENT CASES, PULL BOXES AND JUNCTION BOXES IN THE ROADWAY SHALL BE SET 1/8 INCH (MIN.) TO 3/8 INCH (MAX.) BELOW THE FINAL TOP OF ASPHALT SURFACE.
3. CATCH BASIN AND INLET GRATES, SET IN OR ADJACENT TO CURBING, SHALL BE SET 1/2 INCH BELOW GUTTER GRADE PER STD. PLAN S-117.
4. THE REQUIRED ELEVATION DIFFERENCE BETWEEN THE PAVEMENT AND UTILITY COVER SHALL BE MEASURED FROM THE BOTTOM OF A 10-FOOT LONG STRAIGHT EDGE TO THE TOP OF THE FRAME. THE STRAIGHT EDGE SHALL BE CHECKED OVER THE FRAME IN BOTH DIRECTIONS (PARALLEL AND AND PERPENDICULAR TO THE TRAVEL WAY).
5. UTILITY COVERS LOCATED WITHIN PEDESTRIAN ACCESS ROUTES SHALL CONFORM WITH ALL CURRENT A.D.A. GUIDELINES, INCLUDING NON-SLIP/SKID RESISTANT SURFACE.
6. A CIRCULAR SHAPE CONCRETE COLLAR IS REQUIRED ON ALL INSTALLATIONS/ADJUSTMENTS. CONCRETE SHALL MEET THE REQUIREMENTS OF LEAN CONCRETE PER WSDOT STANDARD SPECIFICATIONS SECTION 6-02.3(2)D AND HAVE CEMENTITIOUS CONTENT WITHIN THE RANGE OF 280 LBS (MIN.) TO 330 LBS (MAX.).
7. FOR SEWER MANHOLES, THE VERTICAL DISTANCE BETWEEN THE TOP OF STRUCTURE AND BOTTOM OF FRAME SHALL BE A MINIMUM OF 2" AND SHALL NOT TO EXCEED 13".
8. ADJUSTMENTS 1" OR GREATER TO BE MADE WITH PRECAST CONCRETE ADJUSTMENT RINGS ONLY.

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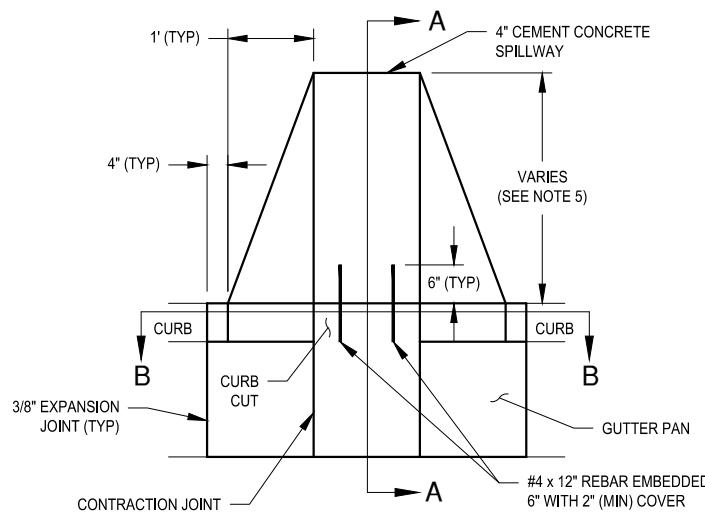


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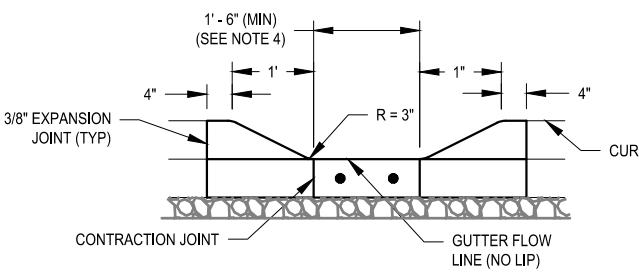
**UTILITY COVER
ADJUSTMENT**

**STANDARD PLAN NO.
S-106**

PUBLICATION DATE: 03/2025
REVISION NO.: 01



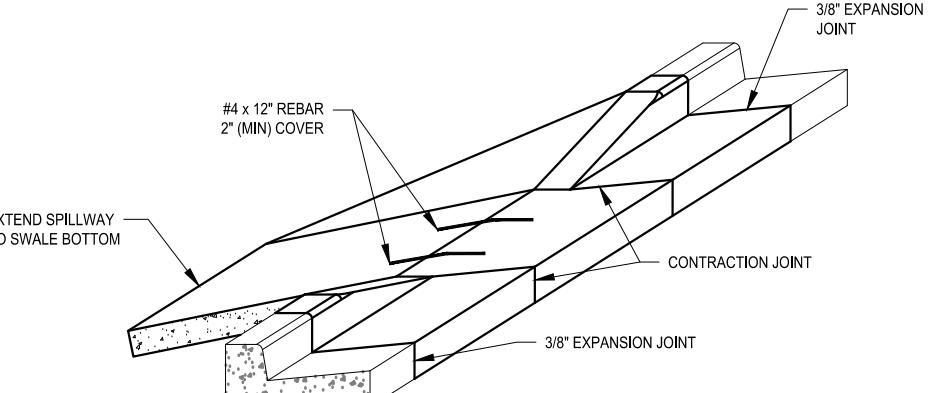
TOP VIEW



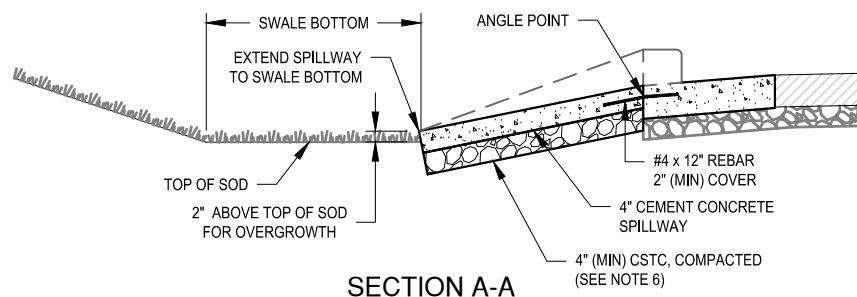
SECTION B-B

GENERAL NOTES:

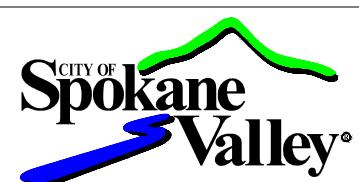
1. CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 (AASHTO M 199) & ASTM C-890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELED WITH 1/4" RADIUS EDGER.
4. WIDTH TO BE DETERMINED BY DESIGN ENGINEER.
5. CONCRETE SPILLWAY SHALL EXTEND TO SWALE BOTTOM.
6. SUBGRADE AND CRUSHED SURFACE TOP COURSE SHALL BE COMPACTED TO 90%.



ISOMETRIC VIEW



SECTION A-A



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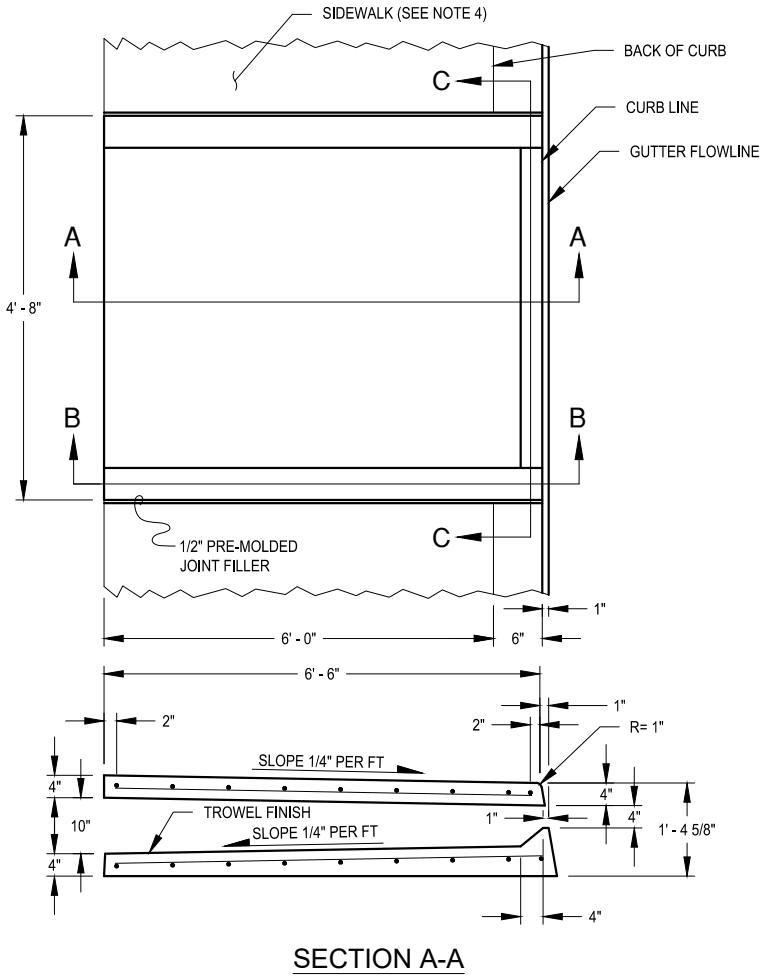
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CURB INLET TYPE 1

**STANDARD PLAN NO.
S-110**

PUBLICATION DATE: 03/2025

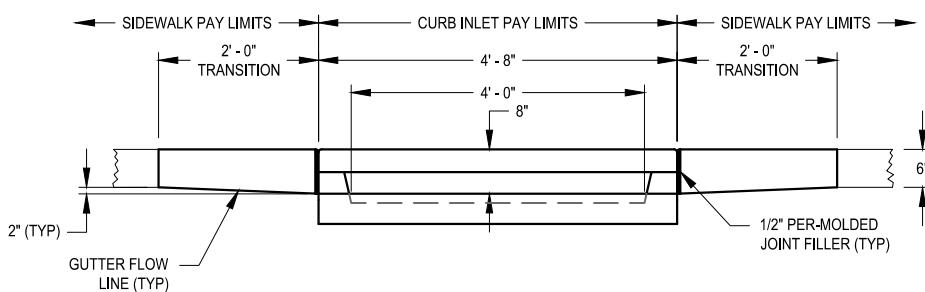
REVISION NO.: 01



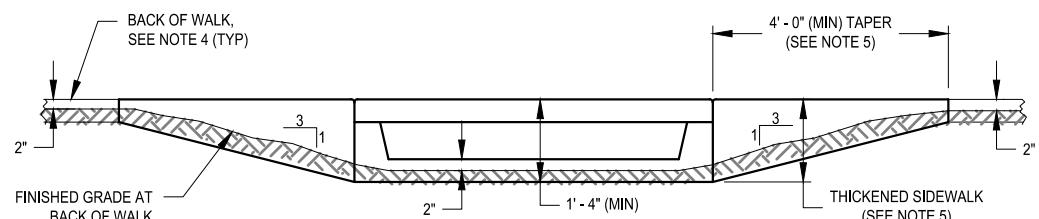
SECTION A-A

GENERAL NOTES:

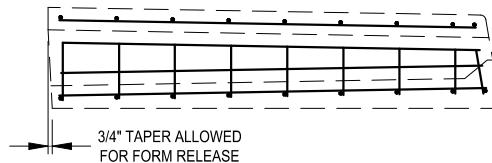
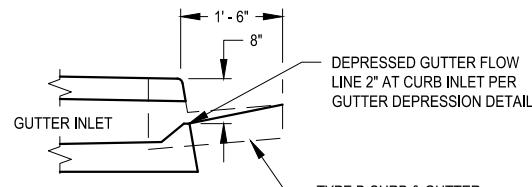
1. PRECAST CURB INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 (AASHTO M-199) & ASTM C-890.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELED WITH A 3/8" TO 1/2" RADIUS.
4. SEE SIDEWALK, STANDARD PLAN E-103.
5. SIDEWALK TAPER SHALL BE THICKENED TO 1'-4" (MIN) TO MATCH THICKNESS OF TYPE 2 CURB INLET, TYPICAL BOTH SIDES.



GUTTER DEPRESSION DETAIL



OUTLET SWALE GRADING DETAIL

SECTION B-B
(REBAR PLACEMENT)

CURB INLET



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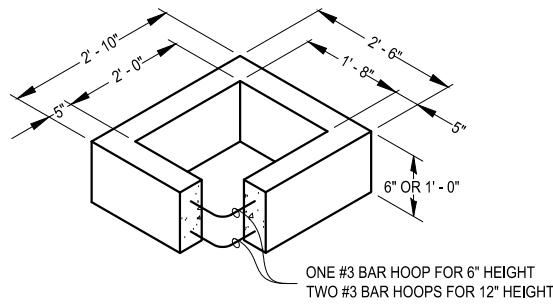
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CURB INLET TYPE 2

STANDARD PLAN NO.
S-111

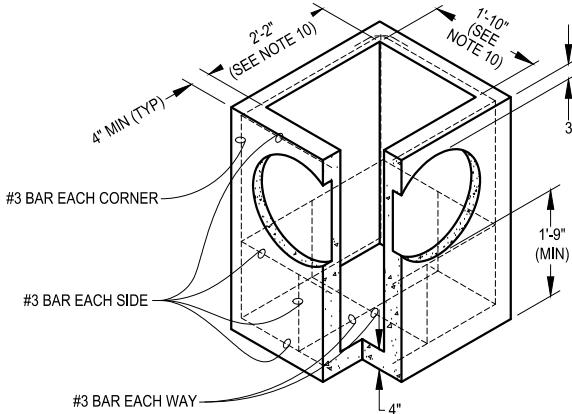
PUBLICATION DATE: 03/2025

REVISION NO.: 01

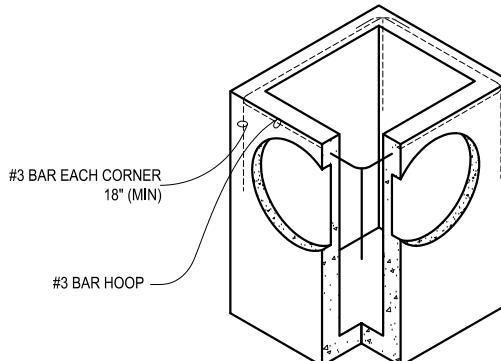


RECTANGULAR ADJUSTMENT

SEE STANDARD PLAN S-105



PRECAST BASE SECTION

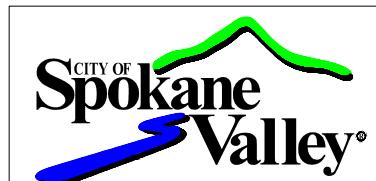


ALTERNATIVE PRECAST BASE SECTION
(SEE NOTE 2)

PIPE ALLOWANCES	
PIPE DIAMETER	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE PIPE	12"
ALL METAL PIPE	15"
CPSSP* (STD. SPEC. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	15"
* CORRUGATED POLYETHYLENE STORM SEWER PIPE	

GENERAL NOTES:

1. CONCRETE CATCH BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 (AASHTO M-199) AND ASTM C-890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. AS AN ACCEPTABLE ALTERNATIVES TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE STANDARD SPECIFICATIONS), OR WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT SHALL BE USED IN ADDITION TO THE MINIMUM REQUIRED REBAR SHOWN IN THE ALTERNATE PRECAST BASE SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
3. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 1'-8". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE.
4. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
5. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH NON-SHRINK GROUT IN ACCORDANCE WITH STANDARD SPECIFICATION 9-20.3.
6. CATCH BASIN/INLET SHALL BE SET ON A COMPACTED OR UNDISTURBED LEVEL FOUNDATION.
7. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5'.
8. THE FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE UP OR DOWN. THE FRAME MAY BE CAST INTO THE ADJUSTMENT SECTION.
9. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR, AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
10. THE OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE SECTION.
11. ALL PICKUP HOLES SHALL BE FULLY GROUTED CLOSED AFTER THE BASIN HAS BEEN PLACED.



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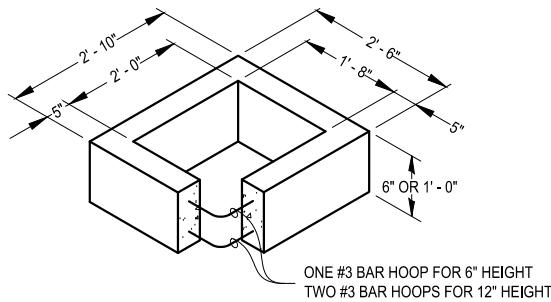
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CATCH BASIN TYPE 1

STANDARD PLAN NO.
S-112

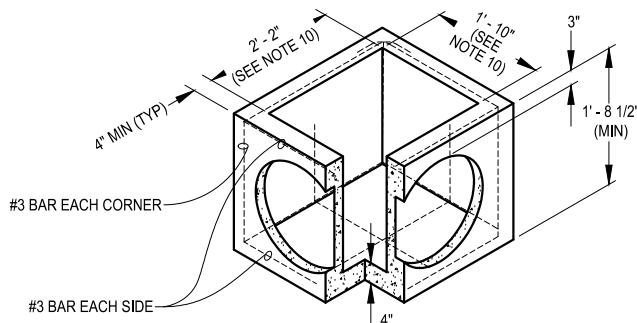
PUBLICATION DATE: 03/2025
REVISION NO.: 01

PIPE ALLOWANCES	
PIPE DIAMETER	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE PIPE	12"
ALL METAL PIPE	15"
CPSSP* (STD. SPEC. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	15"
* CORRUGATED POLYETHYLENE STORM SEWER PIPE	

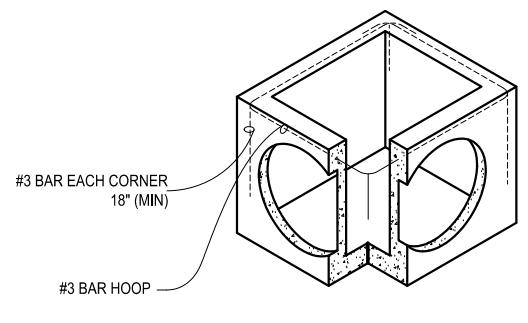


RECTANGULAR ADJUSTMENT

SEE STANDARD PLAN S-105



PRECAST BASE SECTION



ALTERNATIVE PRECAST BASE SECTION
(SEE NOTE 2)

GENERAL NOTES:

1. CONCRETE INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478 (AASHTO M-199) AND ASTM C-890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE STANDARD SPECIFICATIONS), OR WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT SHALL BE USED IN ADDITION TO THE MINIMUM REQUIRED REBAR SHOWN IN THE ALTERNATE PRECAST BASE SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
3. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 1'-6". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE.
4. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
5. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH NON-SHRINK GROUT IN ACCORDANCE WITH STANDARD SPECIFICATION 9-20.3.
6. CATCH BASIN/INLET SHALL BE SET ON A COMPAKTED OR UNDISTURBED LEVEL FOUNDATION.
7. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5'.
8. THE FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE UP OR DOWN. THE FRAME MAY BE CAST INTO THE ADJUSTMENT SECTION.
9. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR, AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
10. THE OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE SECTION.
11. ALL PICKUP HOLES SHALL BE FULLY GROUTED CLOSED AFTER THE BASIN HAS BEEN PLACED.



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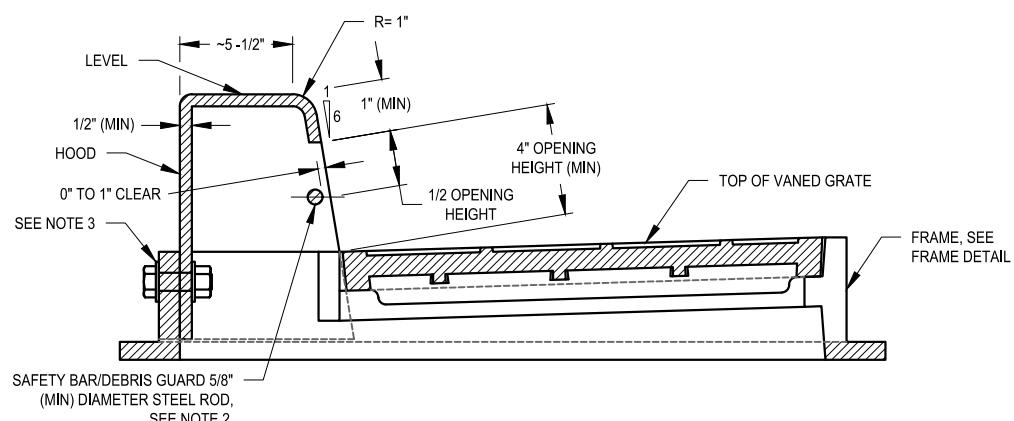
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**CONCRETE INLET
TYPE 1**

**STANDARD PLAN NO.
S-113**

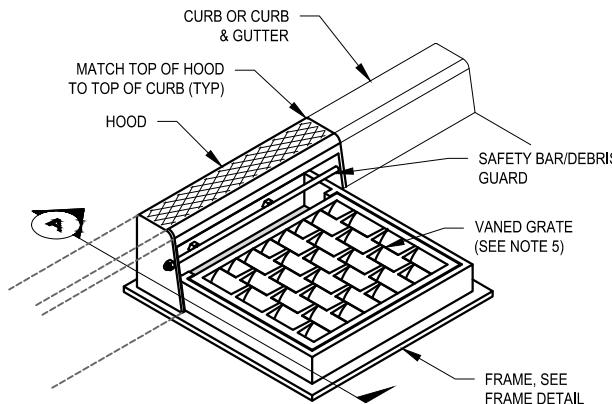
PUBLICATION DATE: 03/2025

REVISION NO.: 01

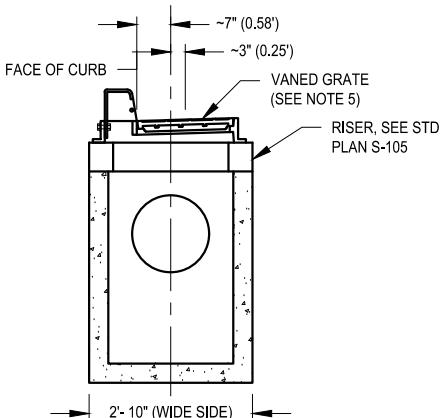
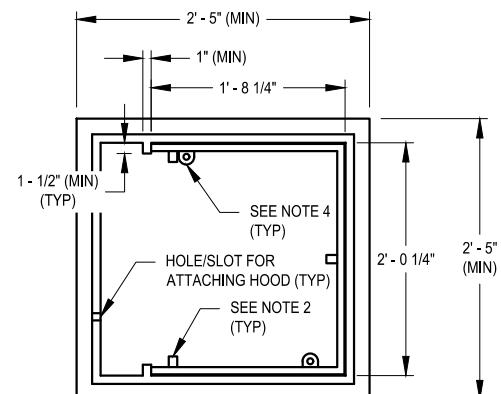


GENERAL NOTES:

1. THE ASYMMETRY OF THE COMBINATION INLET SHALL BE CONSIDERED WHEN CALCULATING THE OFFSET DISTANCE FOR THE CATCH BASIN.
2. THE DIMENSIONS OF THE FRAME AND HOOD MAY VARY SLIGHTLY AMONG DIFFERENT MANUFACTURERS. THE FRAME MAY HAVE CAST FEATURES INTENDED TO SUPPORT A GRATE GUARD. HOOD UNITS SHALL MOUNT INSIDE OF THE FRAME. THE METHODS FOR FASTENING THE SAFETY BAR/DEBRIS GUARD ROD TO THE HOOD MAY VARY. THE HOOD MAY INCLUDE CASTING LUGS. THE TOP OF THE HOOD MAY BE CAST WITH A PATTERN.
3. ATTACH THE HOOD TO THE FRAME WITH TWO 3/4" X 2" HEX HEAD BOLTS, NUTS, AND OVERRSIZE WASHERS. THE WASHERS SHALL HAVE DIAMETERS ADEQUATE TO ASSURE FULL BEARING ACROSS THE SLOTS.
4. WHEN BOLT-DOWN GRATES ARE SPECIFIED IN THE CONTRACT, PROVIDE TWO HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE SLOTS. TAP EACH HOLE TO ACCEPT A 5/8" X 11 NC X 2" ALLEN HEAD CAP SCREW. LOCATION OF BOLT-DOWN HOLES VARIES AMONG DIFFERENT MANUFACTURERS.
5. ONLY DUCTILE IRON VANCED GRATES SHALL BE USED. SEE STANDARD PLANS S-121 AND S-122.
6. THIS PLAN INCLUDES INSTALLATION DETAILS ONLY. FOR FABRICATION DETAILS SEE APPROPRIATE WSDOT STANDARD PLANS AND SPECIFICATIONS.
7. THE TOP OF GRATE SHALL BE INSTALLED 1/2" LOWER THAN THE PROJECTED GUTTER GRADE.

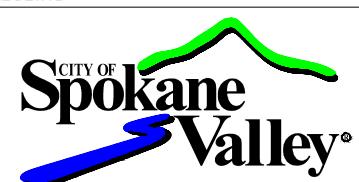


ISOMETRIC VIEW
FRAME, HOOD, AND VANCED
GRATE



FRAME DETAIL

SECTION A
CATCH BASIN, TYPE 1
(SEE NOTE 1)



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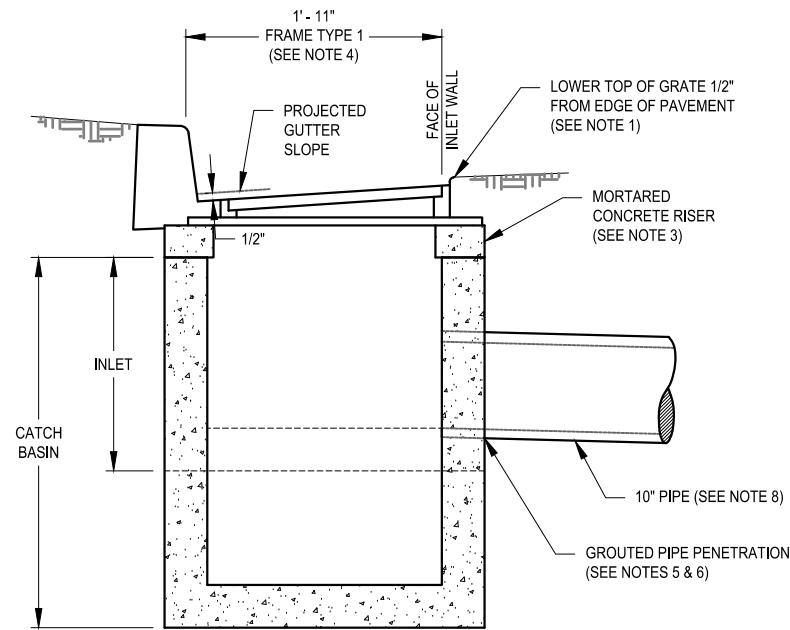
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COMBINATION INLET

STANDARD PLAN NO.
S-115

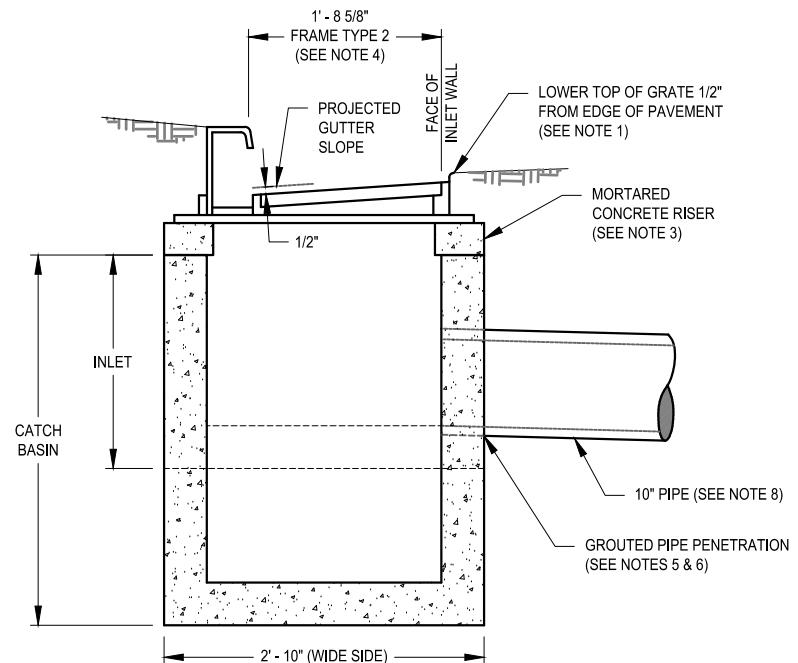
PUBLICATION DATE: 03/2025

REVISION NO.: 01



TYPE 1 INSTALLATION

NON-HOODED



TYPE 2 INSTALLATION

HOODED

GENERAL NOTES:

1. THE TOP OF GRATE SHALL BE INSTALLED 1/2" LOWER THAN THE PROJECTED GUTTER GRADE.
2. THE PRECAST CONCRETE CATCH BASIN/INLET SHALL BE PLACED ON THE SAME GRADE AS THE CURB.
3. MINIMUM ONE RISER TYPE 1 TO BE USED WITH CATCH BASIN/INLET, SEE STANDARD PLAN S-105.
4. FRAMES TYPE 1 AND TYPE 2, SEE SPOKANE COUNTY STANDARD PLANS B-10 AND B-11.
5. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
6. PIPES SHALL BE GROUTED INTO DRYWELL WITH WATERPROOF NON-SHRINK GROUT, IN ACCORDANCE WITH STANDARD SPECIFICATIONS 9-20.3.
7. THIS PLAN INCLUDES INSTALLATION DETAILS ONLY. FOR FABRICATION DETAILS SEE APPROPRIATE WSDOT STANDARD PLANS AND SPECIFICATIONS.
8. MINIMUM DIAMETER OF PIPE IS 10". AN 8" DIAMETER PIPE IS ACCEPTABLE FOR A DISTANCE OF 50' OR LESS WITH CITY ENGINEER'S APPROVAL.



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CATCH BASIN AND
INLET INSTALLATION

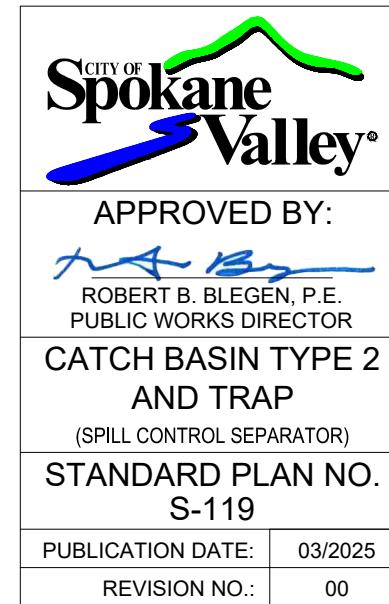
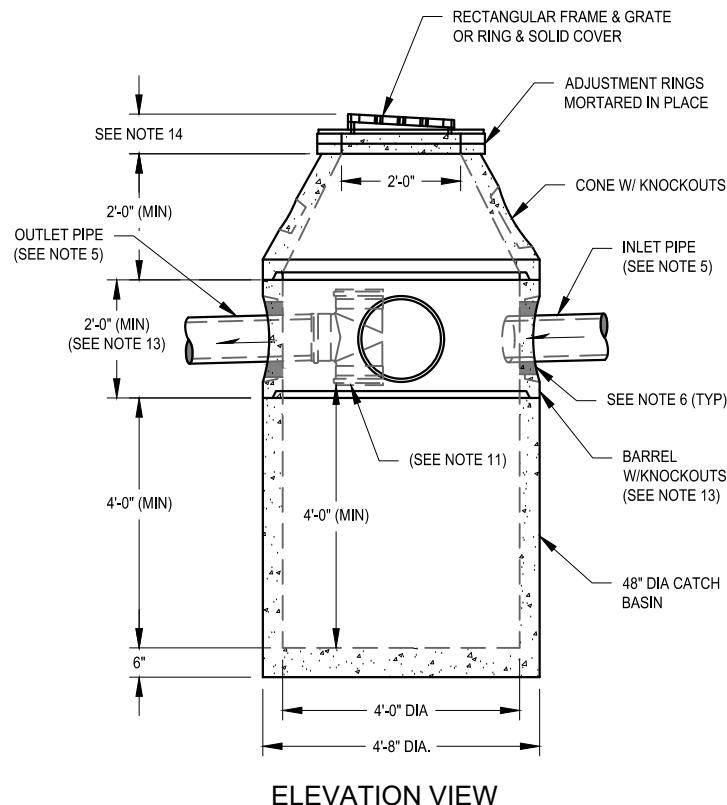
STANDARD PLAN NO.
S-117

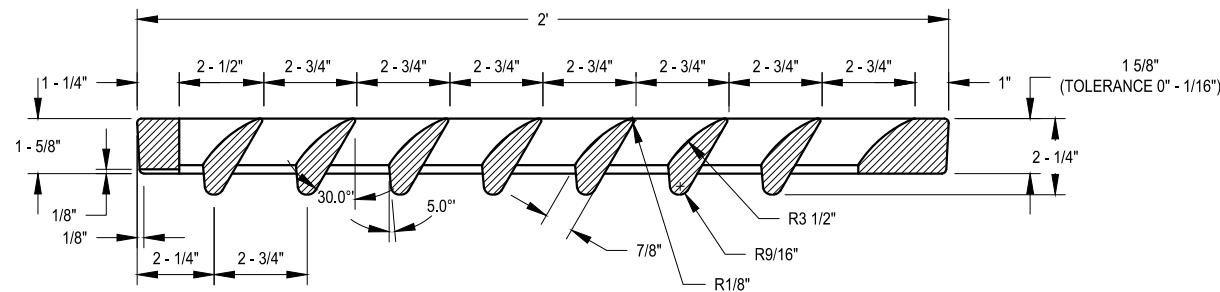
PUBLICATION DATE: 03/2025

REVISION NO.: 01

GENERAL NOTES:

1. AN ECCENTRIC CONE MAY BE USED WHEN INSTALLING UNDER CURB FOR GRATED APPLICATION.
2. THE TOP OF THE GRATE SHALL BE INSTALLED 1/2" LOWER THAN THE PROJECTED GUTTER GRADE.
3. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
4. MINIMUM DIAMETER OF PIPE IS 10". AN 8" DIAMETER PIPE IS ACCEPTABLE FOR A DISTANCE OF 50' OR LESS WITH CITY ENGINEER'S APPROVAL.
5. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH NON-SHRINK GROUT IN ACCORDANCE WITH STANDARD SPECIFICATION 9-20.3.
6. CATCH BASIN/INLET SHALL BE SET ON A COMPACTED OR UNDISTURBED LEVEL FOUNDATION.
7. THE FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE UP OR DOWN. THE FRAME MAY BE CAST INTO THE ADJUSTMENT SECTION.
8. ALL PICKUP HOLES SHALL BE FULLY GROUTED CLOSED AFTER THE BASIN HAS BEEN PLACED.
9. THIS PLAN IS INTENDED TO SHOW THE INSTALLATION DETAILS OF A MANUFACTURED PRODUCT. IT IS NOT THE INTENT OF THIS PLAN TO SHOW THE SPECIFIC DETAILS NECESSARY TO FABRICATE THE CASTINGS SHOWN ON THIS DRAWING.
10. DOWN TURNED 90 DEGREE ELBOW MAY BE USED IN PLACE OF THE TEE. TEE/ELBOW TO REMAIN REMOVABLE FOR MAINTENANCE. SEE CITY STANDARD PLAN SPILL CONTROL SEPARATOR.
11. VERTICAL PROJECTION OF TEE/ELBOW NOT TO EXTEND BEYOND CENTERLINE OF GRATE OR COVER.
12. BARREL WITH KNOCKOUTS MAY BE NEEDED TO MEET PIPE INVERT REQUIREMENTS OR IF CATCH BASIN LOWER DOES NOT INCLUDE KNOCKOUTS.
13. AT LEAST ONE GRADE RING IS REQUIRED. PRECAST MORTARED ADJUSTMENT RINGS SHALL BE USED IN LIEU OF ADJUSTING BLOCKS.
14. CONCRETE SLAB SHALL BE CLASS 3000 CONCRETE.

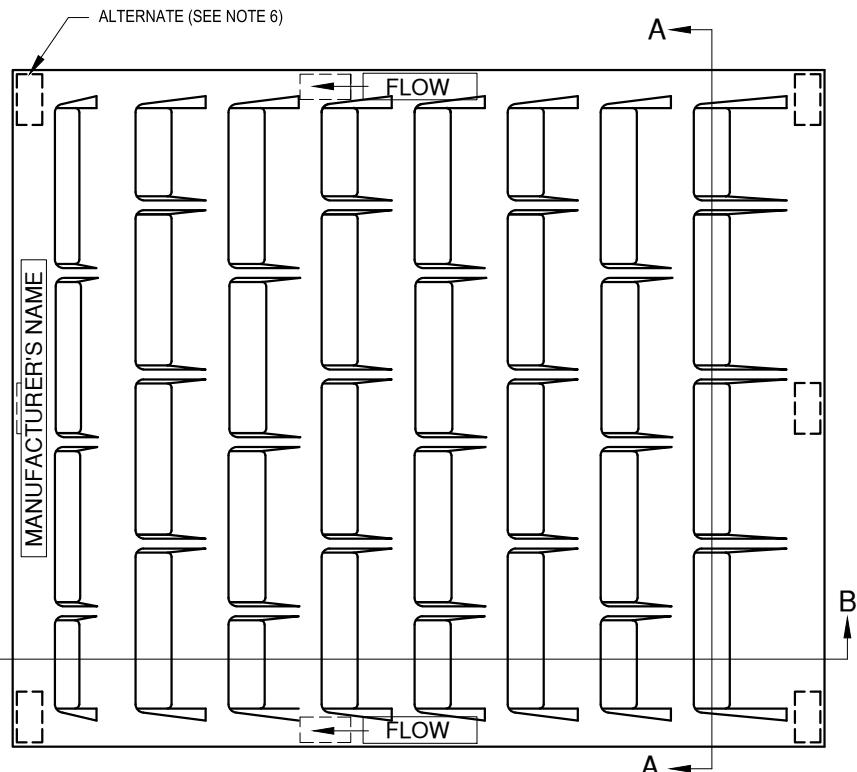




SECTION B-B

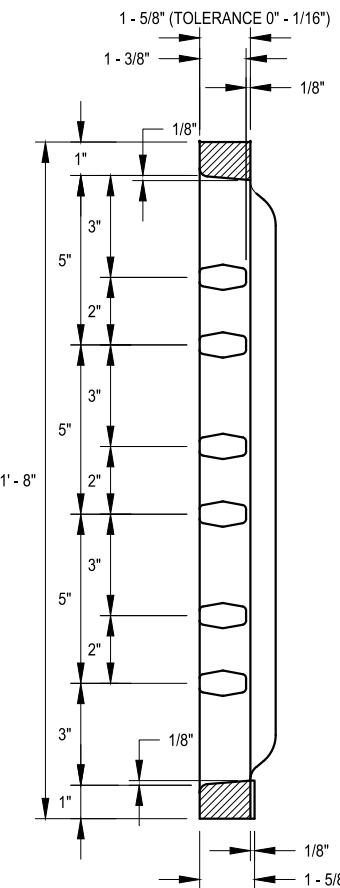
GENERAL NOTES:

1. THE NAME OF THE MANUFACTURER AND DIRECTION OF FLOW SHALL BE EMBOSSED ON THE TOP SURFACE OF EACH GRATE, LETTERING TO BE RECESSED 1/16".
2. FRAME SHALL BE GRAY IRON, AND GRATE SHALL BE DUCTILE IRON, BOTH SHALL CONFORM TO AASHTO M-306.
3. DIMENSIONS SHALL HAVE $\pm 1/16"$ TOLERANCE, EXCEPT AS NOTED.
4. EDGES SHALL HAVE 1/8" RADIUS, 1/8" CHAMFER OR COMPLETE DE-BURRING.
5. WELDING IS NOT PERMITTED.
6. AS AN ALTERNATE, 8 PADS 1 1/2" X 3 1/4" X 1/8", INTEGRALLY CAST WITH THE GRATE, MAY BE USED.

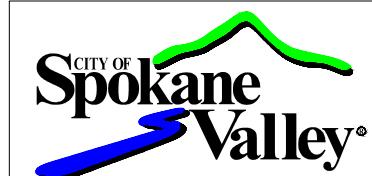


PLAN VIEW

APPROXIMATE WEIGHT-101 LBS



SECTION A-A



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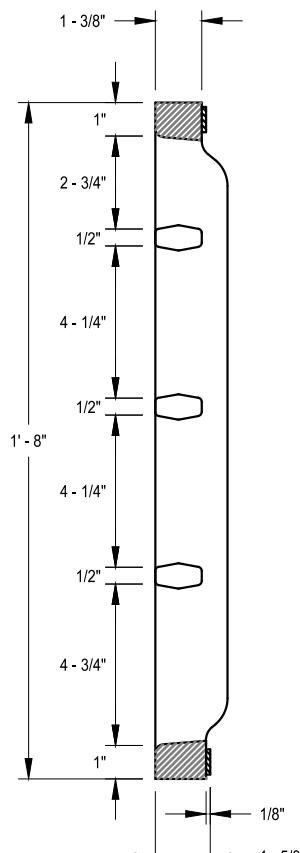
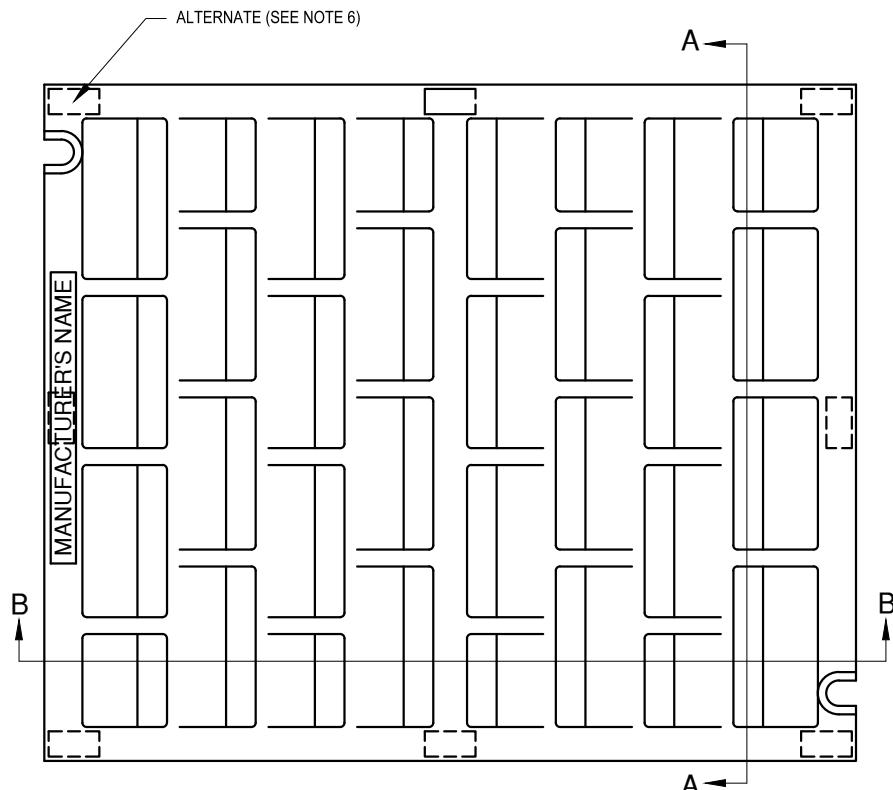
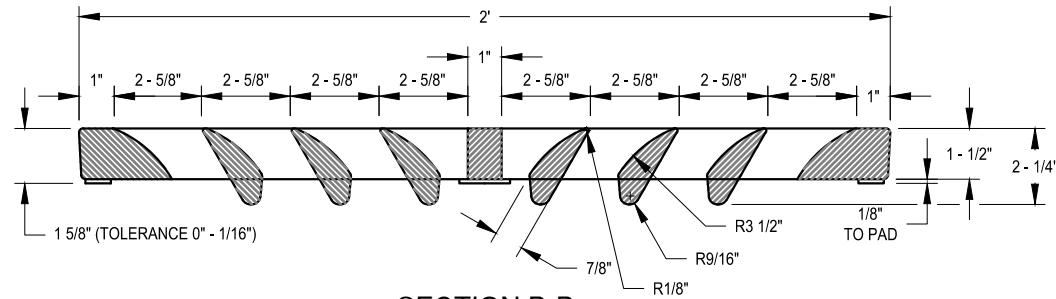
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PUBLIC WORKS DIRECTOR

METAL GRATE TYPE 1 (BYPASS)

**STANDARD PLAN NO.
S-121**

PUBLICATION DATE: 03/2025

REVISION NO.: 01



GENERAL NOTES:

1. THE NAME OF THE MANUFACTURER AND DIRECTION OF FLOW SHALL BE EMBOSSED ON THE TOP SURFACE OF EACH GRATE, LETTERING TO BE RECESSED 1/16".
2. FRAME SHALL BE GRAY IRON, AND GRATE SHALL BE DUCTILE IRON, BOTH SHALL CONFORM TO AASHTO M-306.
3. DIMENSIONS SHALL HAVE $\pm 1/16"$ TOLERANCE, EXCEPT AS NOTED.
4. EDGES SHALL HAVE 1/8" RADIUS, 1/8" CHAMFER OR COMPLETE DE-BURRING.
5. WELDING IS NOT PERMITTED.
6. AS AN ALTERNATE, 8 PADS 1 1/2" X 3/4" X 1/8", INTEGRALLY CAST WITH THE GRATE, MAY BE USED.



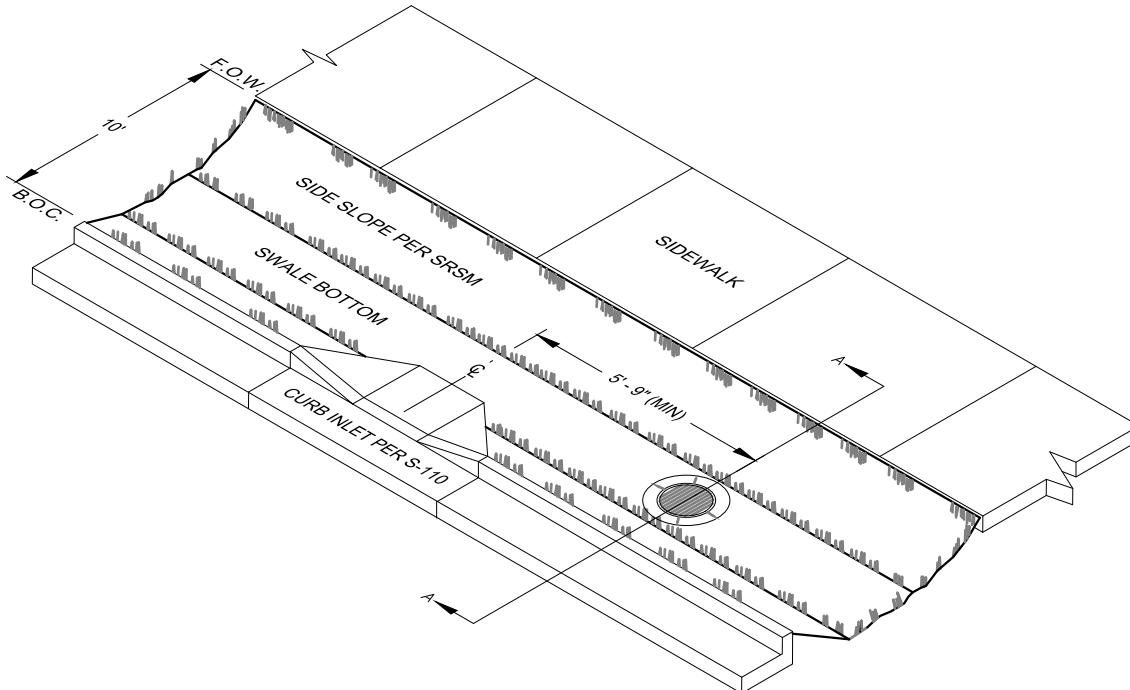
APPROVED BY:

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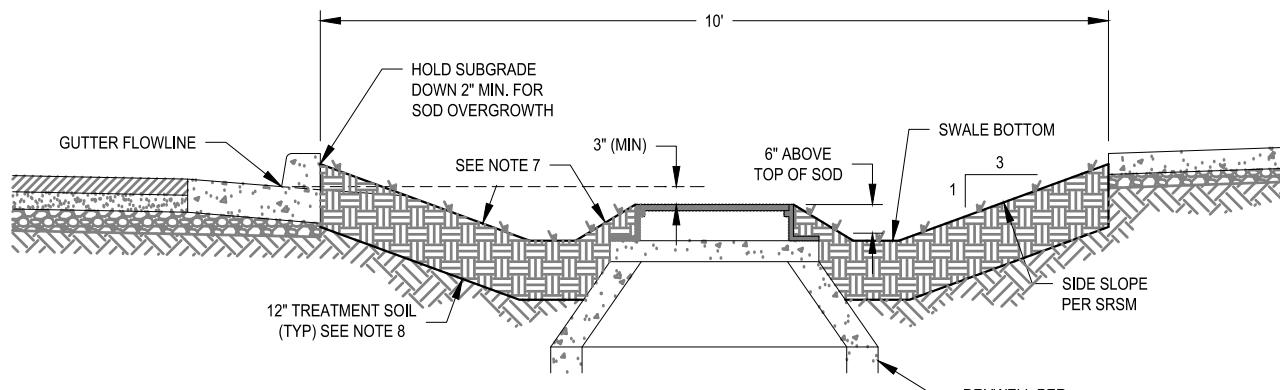
METAL GRATE
TYPE 3 (SUMP)

STANDARD PLAN NO.
S-122

PUBLICATION DATE: 03/2025
REVISION NO.: 01



ISOMETRIC VIEW



SECTION A-A

GENERAL NOTES:

1. SWALES WITH LONGITUDINAL SLOPE GREATER THAN 1% REQUIRE CHECK DAMS.
2. DRYWELLS NOT TO BE WITHIN 5' - 9" OF INLET CENTERLINE.
3. NO MORE THAN 4" OF TOPSOIL OVER UNCOMPACTED NATIVE SOIL.
4. NO COMPACTION IN SWALE BOTTOM.
5. SWALES ARE TO BE GRASSED AND IRRIGATED AS NECESSARY. SWALES WITHOUT IRRIGATION SHALL HAVE DROUGHT-TOLERANT DRYLAND GRASS.
6. SWALES SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE SPOKANE REGIONAL STORMWATER MANUAL (SRSM).
7. TOPSOIL SHALL BE SLOPED AROUND DRYWELL FRAME FROM BOTTOM OF SWALE TO TOP OF FRAME AT 3:1 MAXIMUM SLOPE.
8. THE TOP 12" OF SOIL SHALL CONSIST OF A THOROUGHLY BLENDED MIX OF 50% COMPOST WITH 50% NATIVE SOIL.



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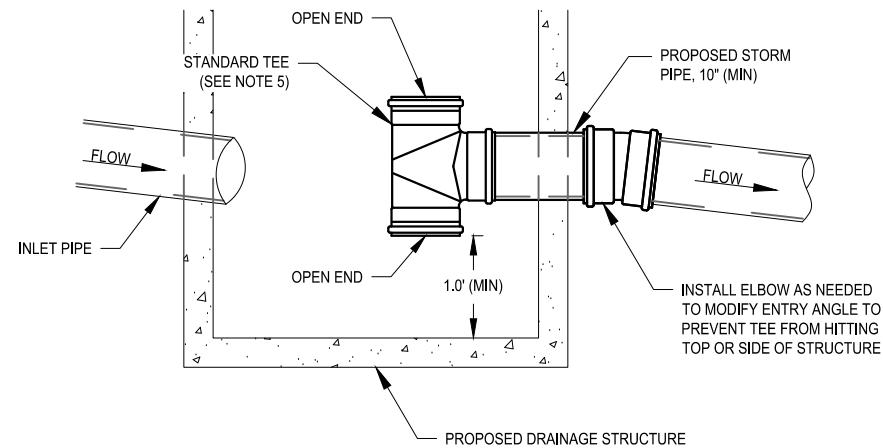
ROBERT B. BLEGEN, P.E.
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ROADSIDE SWALE

STANDARD PLAN NO.
S-130

PUBLICATION DATE: 03/2025

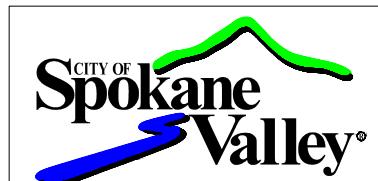
REVISION NO.: 01



ELEVATION VIEW

GENERAL NOTES:

1. WHEN PVC PIPE IS USED, A SAND COLLAR SHALL BE INSTALLED.
2. PIPE SHALL BE 10" MINIMUM DIAMETER.
3. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH NON-SHRINK GROUT IN ACCORDANCE WITH STANDARD SPECIFICATION 9-20.3.
4. THIS PLAN INCLUDES INSTALLATION DETAILS ONLY. FOR FABRICATION DETAILS SEE APPROPRIATE WSDOT STANDARD PLANS AND SPECIFICATIONS.
5. DOWN TURNED 90 DEGREE ELBOW MAY BE USED IN PLACE OF THE TEE. TEE/ELBOW TO REMAIN REMOVABLE FOR MAINTENANCE.



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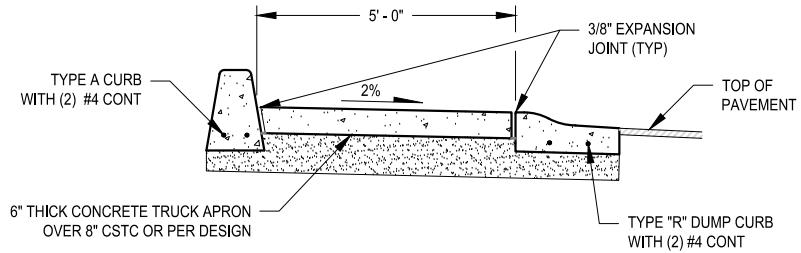
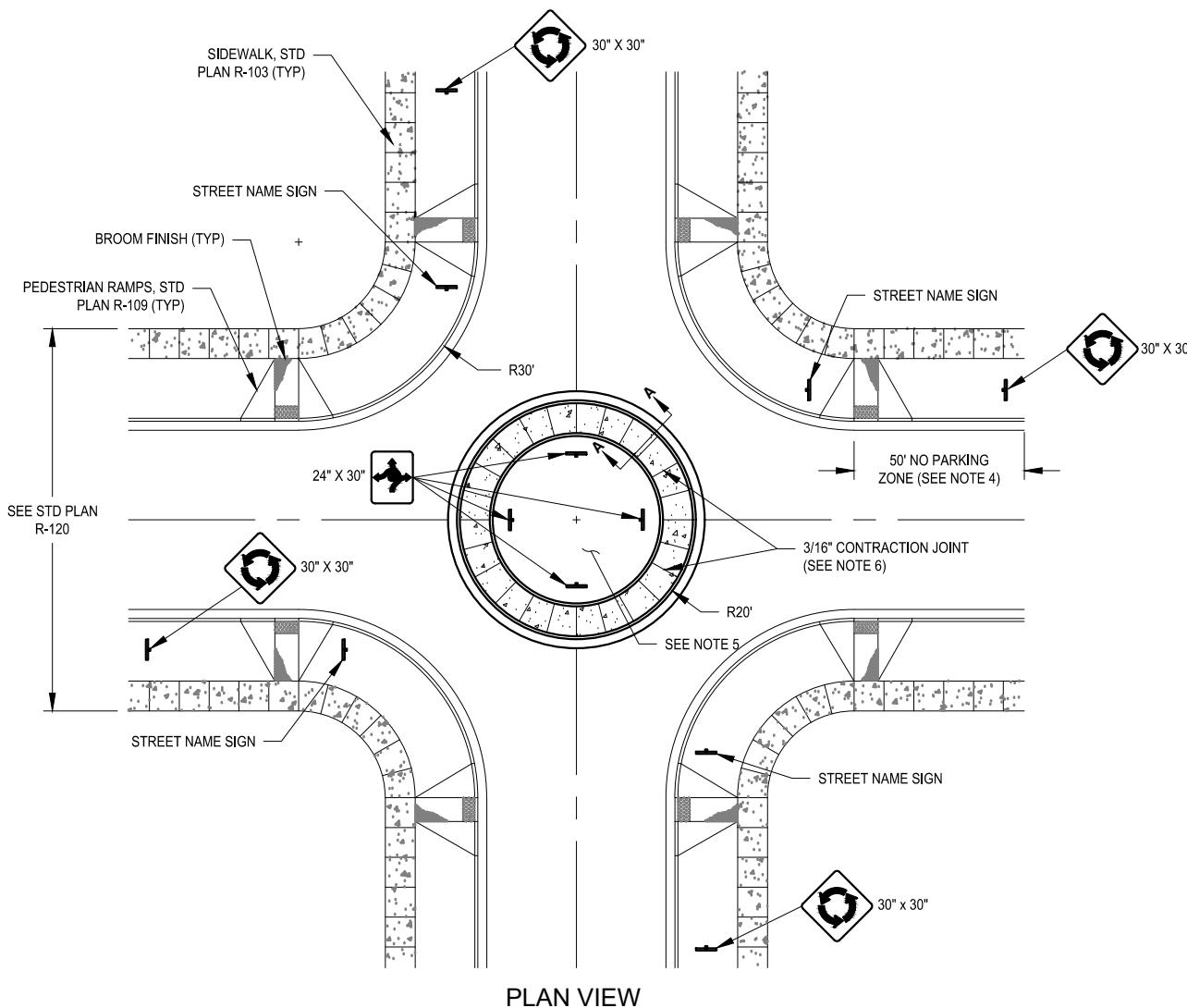
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**SPILL CONTROL
SEPARATOR**

**STANDARD PLAN NO.
S-140**

PUBLICATION DATE: 03/2025

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SECTION A-A

GENERAL NOTES:

1. SIGNAGE PER MUTCD, LATEST EDITION.
2. ALL RADIUS DIMENSIONS ARE TO FACE OF CURB.
3. ONLY TO BE USED ON RESIDENTIAL STREETS.
4. 50' NO PARKING ZONE APPLIES TO EACH LEG OF INTERSECTION BOTH SIDES OF STREET. R7-1 SIGNS WITH DOUBLE ARROWS PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
5. CENTER ISLAND LANDSCAPING TO BE PLACED IN CONFORMANCE WITH APPLICABLE SVMC REQUIREMENTS.
6. CONTRACTOR SHALL PLACE #5 TIE BAR x 30" LONG AT 24" O.C., CENTERED UNDER EACH CONTRACTION JOINT AT SLAB MID-DEPTH.

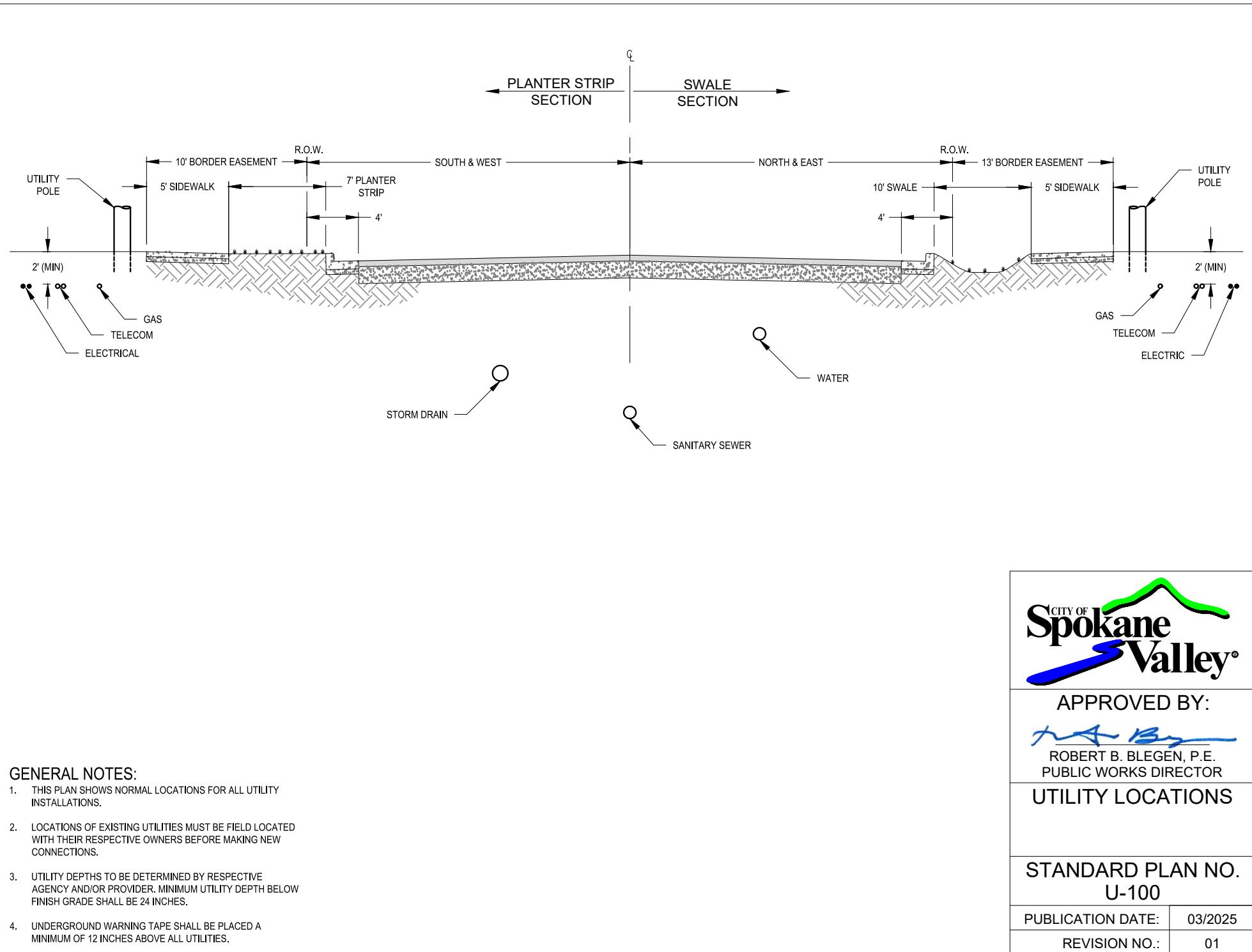


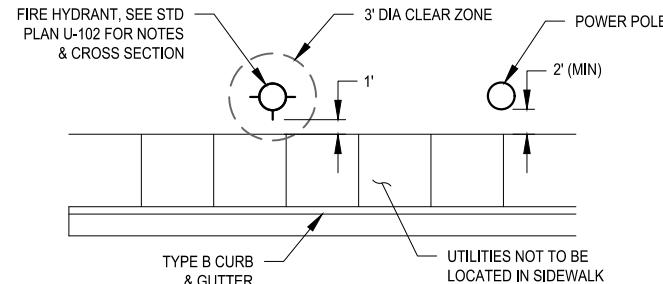
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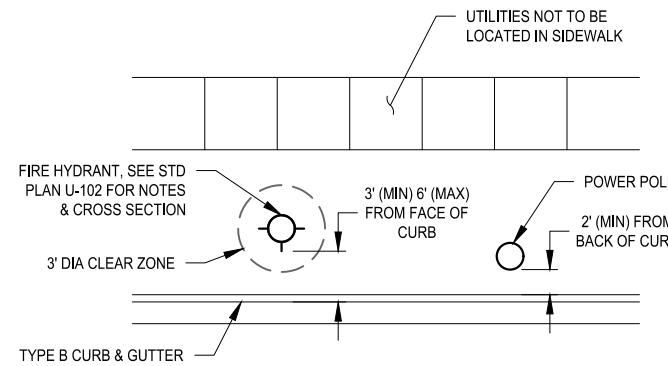
TRAFFIC CIRCLE

STANDARD PLAN NO.
T-101PUBLICATION DATE: 03/2025
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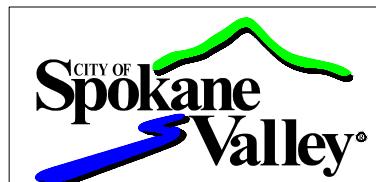
STREETS WITH ADJACENT SIDEWALK



STREETS WITH SEPARATED SIDEWALK

GENERAL NOTES:

1. WHENEVER POSSIBLE, HYDRANTS SHALL BE LOCATED NEAR INTERSECTIONS.
2. PLACEMENT TO MEET ALL APPLICABLE CLEAR ZONE REQUIREMENTS.
3. THE PREFERRED LOCATION OF POWER POLES FOR NEW STREETS WITH SEPARATED SIDEWALK IS BEHIND THE SIDEWALK; HOWEVER, IF THE POWER POLE IS INSTALLED WITHIN THE PLANTER STRIP, THEN THE FACE OF POWER POLE SHALL BE SET 2' (MIN.) FROM BACK OF CURB.



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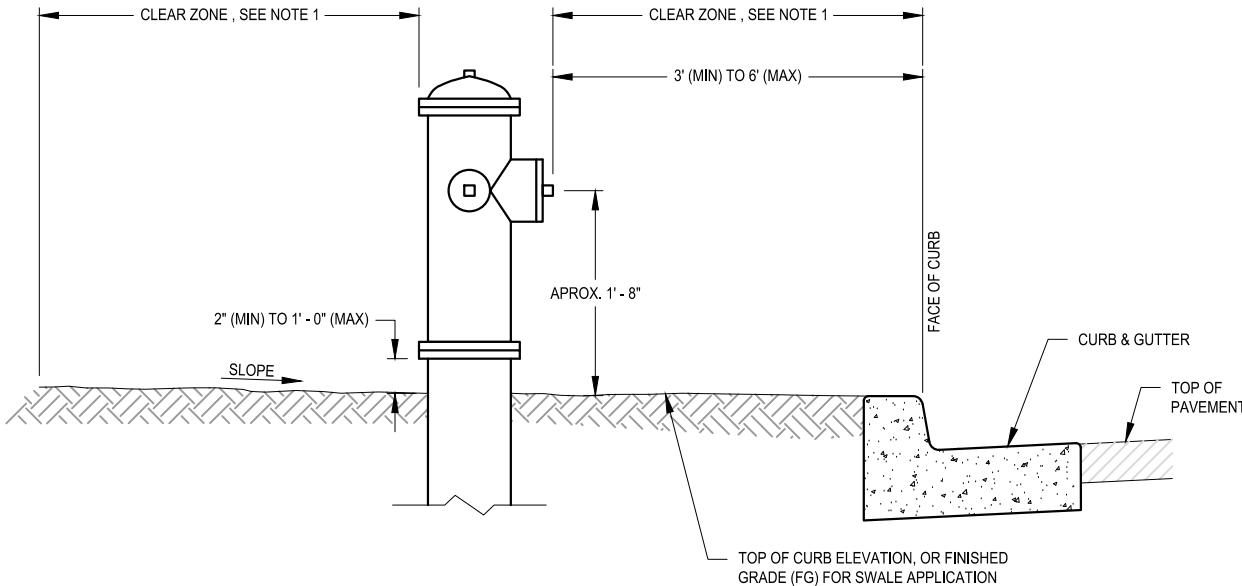
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ABOVE GROUND
UTILITY LOCATIONS

STANDARD PLAN NO.
U-101

PUBLICATION DATE: 03/2025

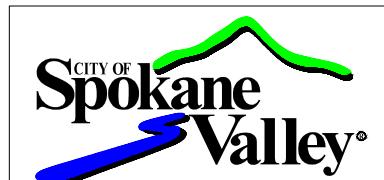
REVISION NO.: 01

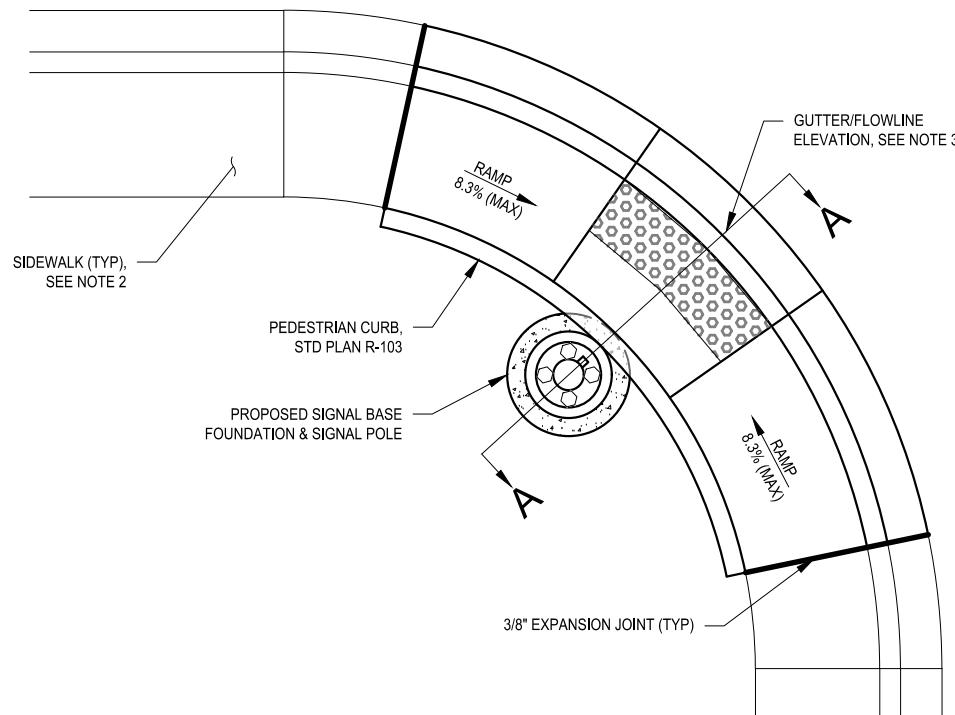


ELEVATION VIEW

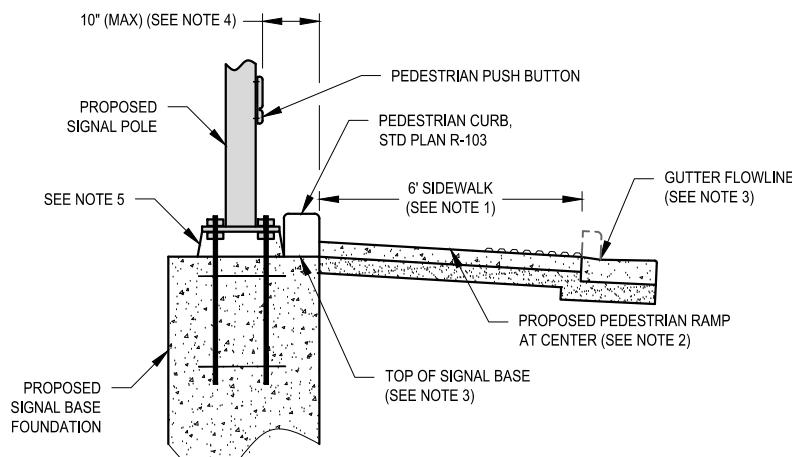
GENERAL NOTES:

1. HYDRANTS SHALL STAND PLUMB. THE TRAFFIC BREAKAWAY FLANGE IS TO BE SET WITHIN 2" AT THE FINISHED CURB/GRADE ELEVATION WITH THE LOWEST OUTLET OF THE HYDRANT NO LESS THAN 20" ABOVE THE CURB GRADE. THERE SHALL BE A CLEAR AREA AROUND THE HYDRANT OF NOT LESS THAN 36" AS MEASURED FROM THE OUTSIDE EDGE OF THE BARREL OR OUTLET PORTS, WHICHEVER IS GREATER. HYDRANTS SHALL BE A MINIMUM OF 36" FROM THE FACE OF CURB AND NO MORE THAN 72" FROM THE FACE OF CURB.
2. HYDRANTS SHALL BE LOCATED AT ROADWAY INTERSECTIONS WHENEVER POSSIBLE.
3. ALL FIRE HYDRANTS SHALL HAVE A MINIMUM OF THREE OUTLETS, ONE 4-1/2 INCH INSIDE DIAMETER OUTLET AND TWO 2-1/2 INCH INSIDE DIAMETER OUTLETS. THREADS ON ALL OUTLETS SHALL BE NATIONAL STANDARD THREAD (NST).
4. THE 4-1/2 INCH PORT SHALL FACE THE STREET. WHERE THE STREET CANNOT BE CLEARLY DEFINED (SUCH AS PARKING LOTS) THE PORT SHALL FACE THE MOST LIKELY ROUTE OF APPROACH (E.G., FIRE LANE) AND LOCATION OF THE FIRE APPARATUS WHILE PUMPING, AS DETERMINED BY SPOKANE VALLEY FIRE DEPARTMENT.
5. HYDRANT COLORS SHALL BE AS FOLLOWS:
 - a. CHROME YELLOW - HYDRANTS OWNED BY DISTRICTS
 - b. RED - PRIVATELY OWNED HYDRANTS
6. CLEAR ZONE SHALL BE FREE OF ALL OBSTRUCTIONS, INCLUDING BOLLARDS, FENCING, TREES, AND SHRUBS.

	
APPROVED BY:	
	ROBERT B. BLEGEN, P.E. PUBLIC WORKS DIRECTOR
FIRE DEPARTMENT HYDRENT REQUIREMENTS	
STANDARD PLAN NO. U-102	
PUBLICATION DATE:	03/2025
REVISION NO.:	01



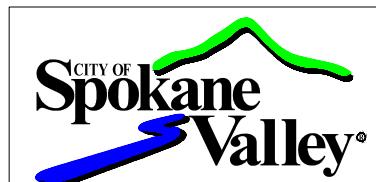
PLAN VIEW



SECTION A-A

GENERAL NOTES:

1. DUE TO VARIOUS RAMP STYLES AND CONFIGURATIONS, THE HORIZONTAL DISTANCE FROM FACE OF CURB TO SIGNAL POLE MAY VARY.
2. CROSS SLOPE IS $1.5\% \pm 0.5\%$, 2% MAX. SIDEWALK SHALL NOT EXCEED ADA STANDARDS.
3. SIDEWALK CONFIGURATIONS MAY DIFFER. ALWAYS USE GUTTER/FLOWLINE AT CENTER OF RAMP TO DETERMINE SIGNAL BASE HEIGHT. TOP OF SIGNAL BASE FOUNDATION SHALL BE SET 3" BELOW THE GUTTER FLOWLINE ELEVATION.
4. PEDESTRIAN PUSH BUTTON SHALL NOT BE MORE THAN 10 HORIZONTAL INCHES FROM CLEAR EDGE OF RAMP, PEDESTRIAN WALL, OR OTHER OBSTRUCTIONS.
5. PROVIDE A MINIMUM 1 INCH CLEAR SPACE BELOW LOWER ADJUSTING NUT.
6. SEE STANDARD PLAN R-109 FOR INDIVIDUAL RAMP SPECIFICATIONS.



APPROVED BY:

ROBERT B. BLEGEN, P.E.
PUBLIC WORKS DIRECTORSIGNAL POLE BASE
AT CURB RAMPSTANDARD PLAN NO.
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