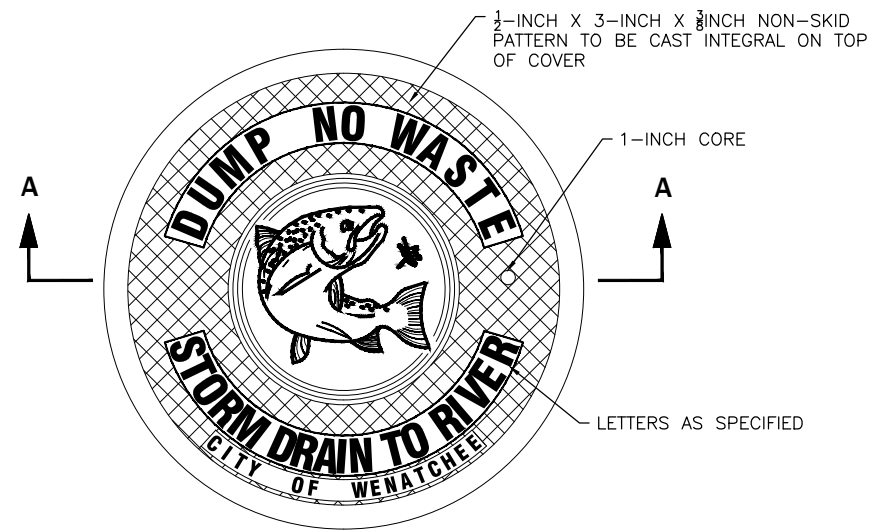
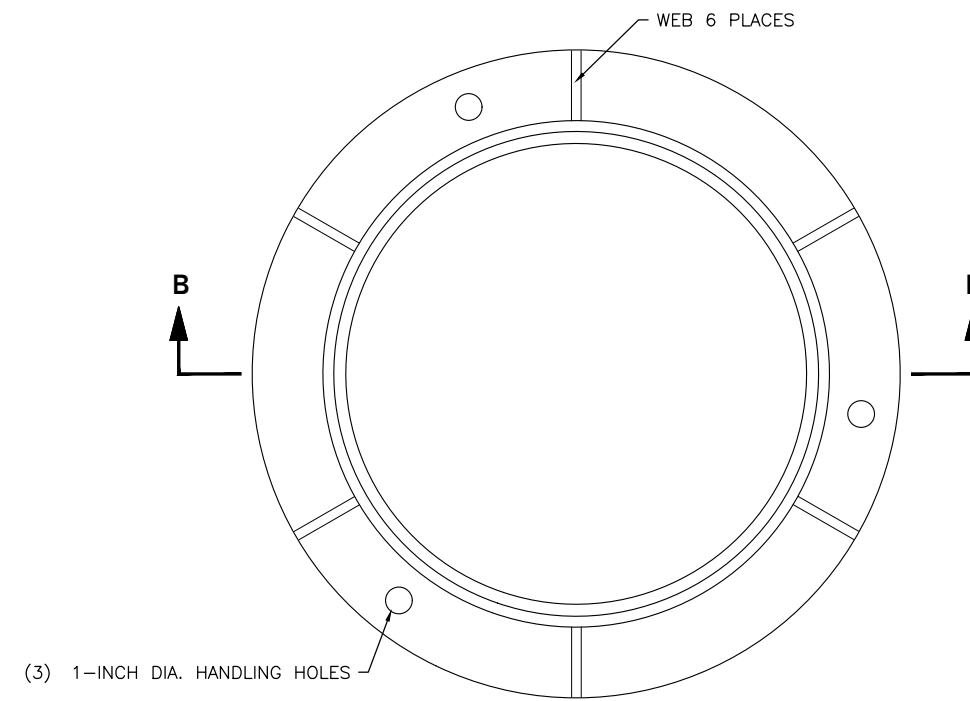


Drainage Standard Plans



STORM DRAIN NON LOCKING COVER



**3715Z STACKING
GRAY OR DUCTILE IRON FRAME**

**STANDARD DETAIL
CIRCLE FRAME RING
AND COVER DETAIL**



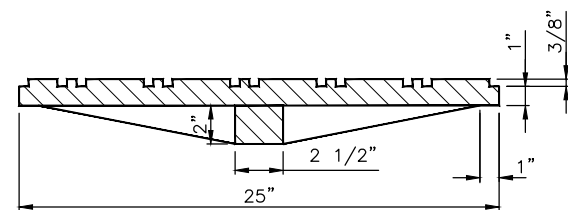
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						DATE	INITIAL	BY	DATE	INITIAL	BY				
						10/03/18	DMN		09/17/20	CAW					
						01/01/2022	AJS		03/31/2023	JTB					

DETAIL NO.
D-100
PAGE
1 OF 1

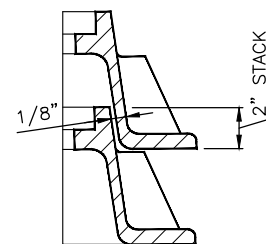
NOTES:

STANDARD SPECIFICATION SECTION 9-05.15(1) AND 9-06.14

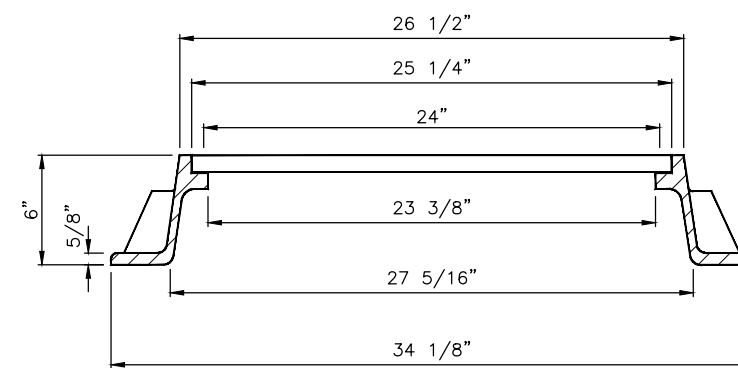
- COVER SHALL BE AT MINIMUM 100LBS
- MINIMUM WEIGHT OF FRAME SHALL BE 134 LBS
- PRODUCT SUPPLIES BY EAST JORDAN IRON WORKS, OR APPROVED EQUAL
- CITY OF WENATCHEE LOGO REQUIRED
- FRAME AND COVER SHALL BE H-20 LOADING RATED



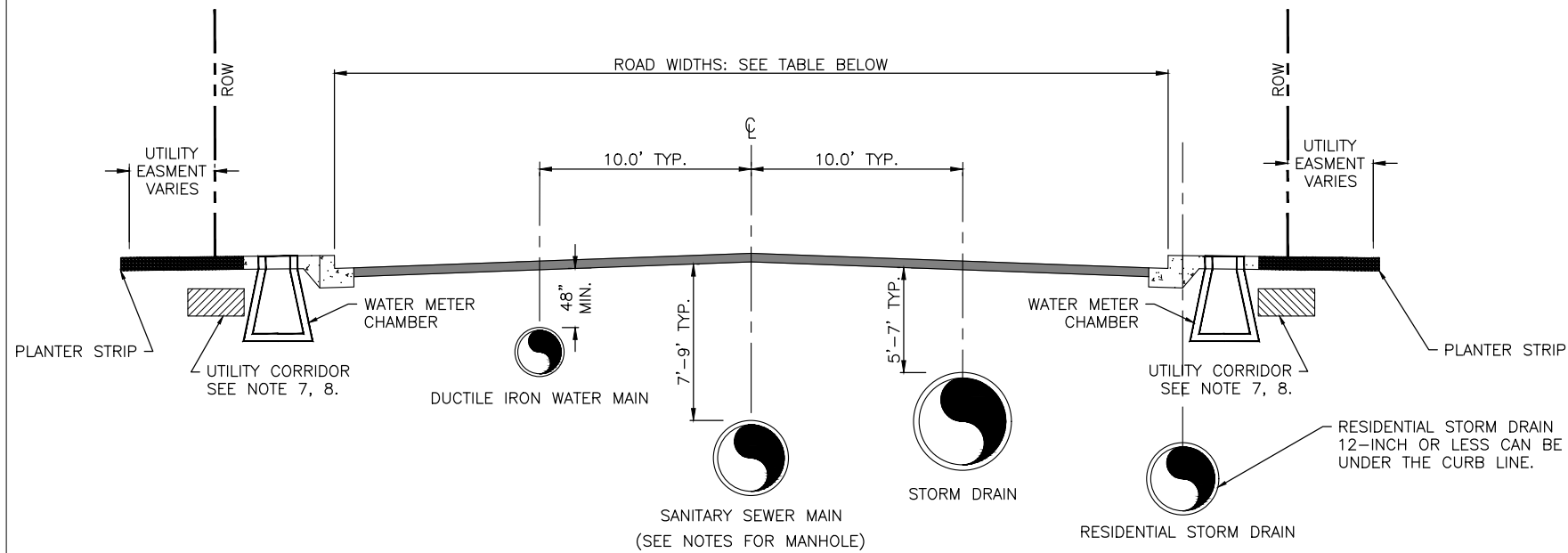
**SECTION A-A - DUCTILE IRON
NON LOCKING COVER
MINIMUM WEIGHT 100 LBS.**



STACKING DETAIL



**SECTION B-B
GRAY IRON OR DUCTILE IRON FRAME
MINIMUM WEIGHT 135 LBS.**

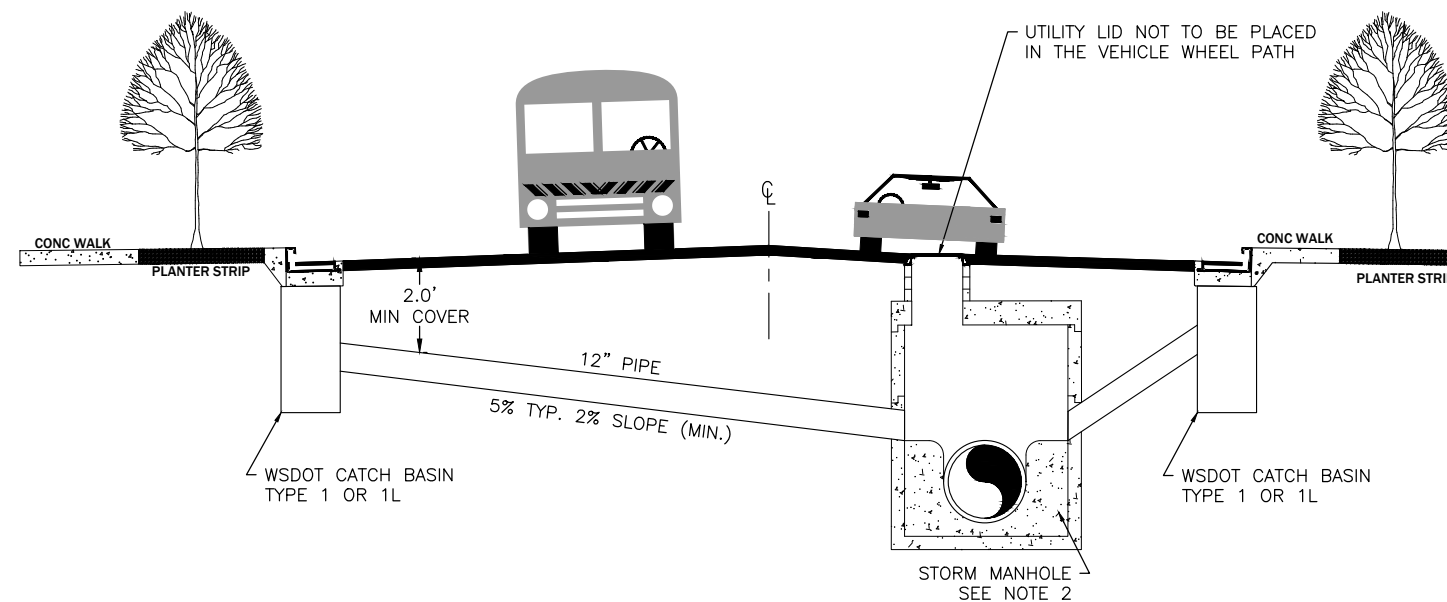


TYPICAL UTILITY PLACEMENT
N.T.S.

NOTES:

1. SANITARY SEWER MANHOLES SHALL BE WSDOT MANHOLE TYPE 1 AND BE CHANNELIZED.
2. STORM SEWER MANHOLES SHALL BE WSDOT MANHOLE TYPE 3 AND BE CHANNELIZED.
3. THROUGH CURB INLET SHALL BE USED WITH ALL CATCH BASINS UNLESS OTHERWISE APPROVED.
4. ALL WATER & SEWER SEPARATION MUST BE DONE IN ACCORDANCE WITH DOE CRITERIA FOR SEWER WORKS DESIGN.
5. ALL CATCH BASINS SHALL HAVE A MINIMUM OF A 21" SUMP.
6. CATCH BASIN OUTLET PIPE TYPICAL 12" DIAMETER.
7. STORM SEWER LATERALS IN ACCORDANCE WITH D-200.
8. SANITARY SEWER LATERALS IN ACCORDANCE WITH S-100
9. STREET LIGHT CONDUITS SHALL BE PLACED ACCORDING TO STREET LIGHTING DETAILS. ALL OTHER UNDERGROUND UTILITIES SHALL BE PLACED BEHIND THE SIDEWALK SO AS NOT TO OBSTRUCT THE PLACEMENT OF FUTURE WATER CHAMBER.
10. THE UTILITY CORRIDOR SHOULD BE PLACED IN THE PLANTER STRIP RESERVING PLACEMENT FOR STREET TREES.

	PRIVATE LANE<500--FEET	RESIDENTIAL LANE	PRIVATE LANE>=500--FEET	LOCAL	COLLECTOR	ARTERIAL
CURB TO CURB (FT)	20	24	27	34	38	44-56



STORM SEWER CONFIGURATION
N.T.S.

**STANDARD DETAIL
UTILITY LOCATIONS
FOR NEW ROADS**

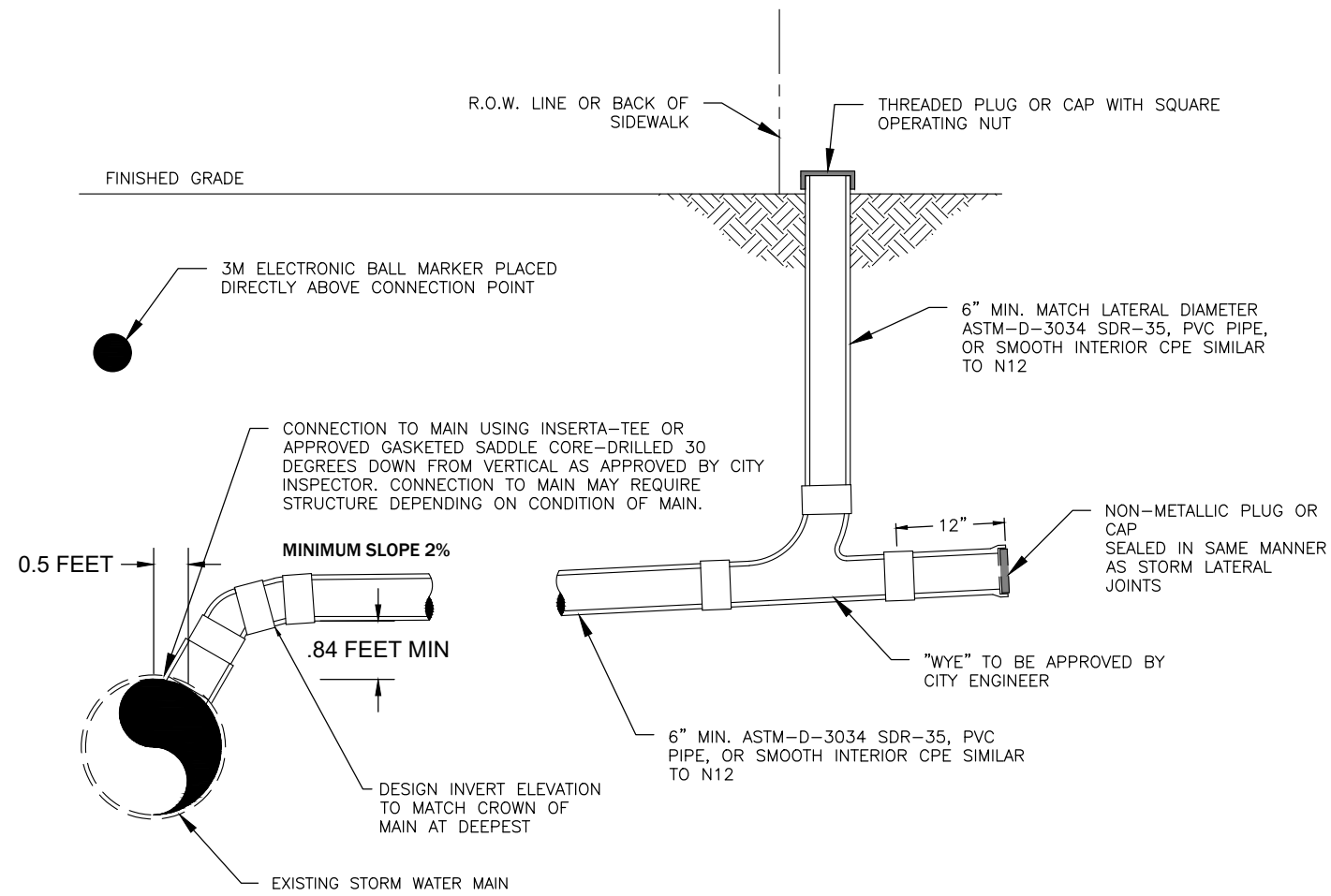


SCALE: AS SHOWN	DESIGNED DMN	DRAWN CAW	APPROVED BY	STANDARD SPECIFICATIONS	REVISIONS			
					DATE	INITIAL	DATE	INITIAL
09/09/2021					01/01/2022	AJS	03/31/2023	JTB

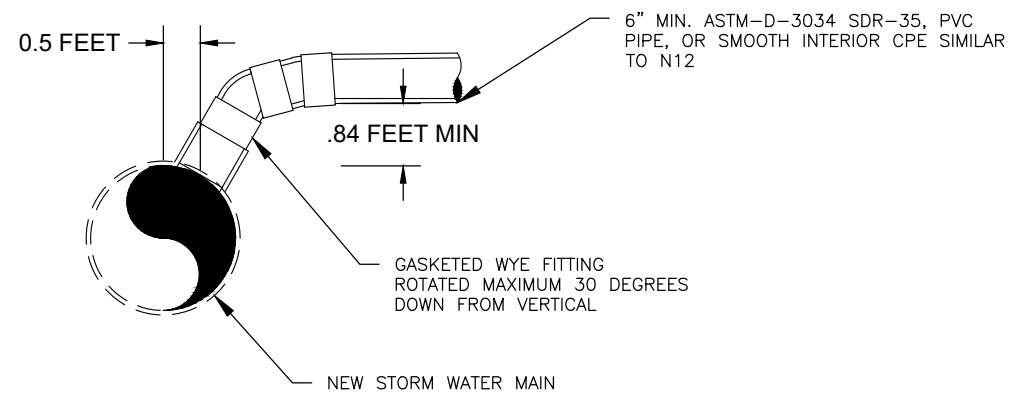
DETAIL NO.
D-150

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1 OF 1

CASE 1 NEW CONNECTION TO EXISTING STORM MAIN



CASE 2 NEW CONNECTION TO NEW STORM MAIN



NOTES:

1. ALL CONNECTIONS MUST BE APPROVED BY THE CITY OF WENATCHEE AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
2. LATERAL CONNECTIONS TO THE MAIN LINE SHALL BE A MINIMUM OF 3 FEET APART ON CENTER.
3. LATERAL CONNECTIONS TO THE PUBLIC MAIN LINE SHALL BE DESIGNED TO FLOW BY GRAVITY THROUGH THE POINT OF CONNECTION. PRESSURE SYSTEMS SHALL DISCHARGE INTO GRAVITY FLOW NO LESS THAN 10 FEET UPSTREAM OF THE POINT OF CONNECTION BETWEEN THE 6 INCH LATERAL AND THE MAIN LINE.
4. THE STORM LATERAL, INCLUDING THE TAP, SADDLE, TEE, PIPE, AND CLEANOUT IS CONSIDERED "PRIVATE" UPSTREAM OF THE MAIN LINE POINT OF CONNECTION.
5. MINIMUM 6 INCH DIAMETER CLEANOUTS SHALL BE CONSTRUCTED ON ALL STORM LATERALS. THE VERTICAL RISER SHALL BE OF EQUAL SIZE AS THE LATERAL PIPE OR LARGER.
6. CLEANOUTS MAY BE LOCATED IN THE PLANTER STRIP AT THE BACK OF WALK, IF ONE EXISTS, AND SHALL BE VISIBLE AT FINISHED GRADE. CLEANOUTS LOCATED BELOW FINISHED GRADE SHALL HAVE ACCESSIBLE COVER.
7. 3M ELECTRONIC BALL MARKER TO BE PLACED 24 TO 36 INCHES BELOW FINISHED GRADE AND SHALL BE GREEN IN PIGMENT.
8. ALL CONNECTIONS TO NEW PIPE MUST NOT BE GREATER THAN ONE PIPE SIZE SMALLER THAN EXISTING MAIN DIAMETER.
9. STORM MAIN MANHOLE STRUCTURE REQUIRED FOR CONNECTION OF ALL PIPES OF A SIMILAR SIZE AS THE MAIN OR BASED UPON CONDITION OF STORM MAIN AS DETERMINED BY THE CITY ENGINEER.
10. **CASE 1:** CONNECTIONS TO EXISTING STORM MAINS SHALL BE CUT USING A HOLE SAW. CONNECTIONS TO EXISTING MAIN LINES SHALL UTILIZE AN APPROVED TAPPING SADDLE OR TEE-WYE CONNECTION. LATERALS SHALL NOT PROTRUDE INTO THE MAIN LINE.
11. **CASE 2:** CONNECTIONS TO NEWLY CONSTRUCTED MAIN LINES SHALL UTILIZE A MANUFACTURED, GASKETED TEE-WYE INSTALLED IN-LINE WITH THE NEW STORM MAIN. CORE-DRILLING OF NEW STORM MAIN LINES FOR STORM LATERALS SHALL NOT BE PERMITTED.

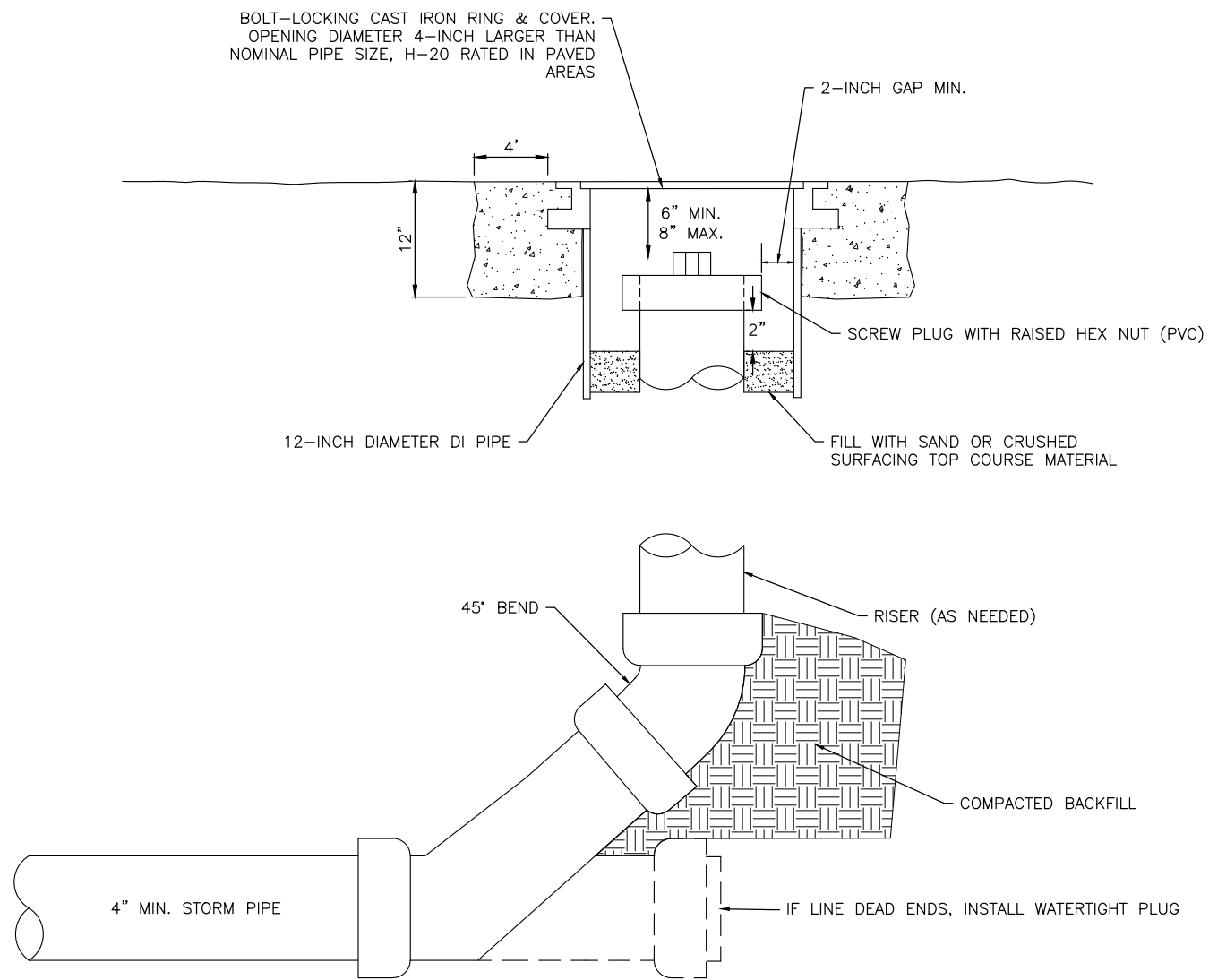
**STANDARD DETAIL
6" OR 8" STORM LATERAL
12" - 24" STORM MAINS**



SCALE: AS SHOWN	DATE DRAWN	REVISIONS							
		DATE	INITIAL	DATE	INITIAL	DATE	INITIAL		
N.A.	3/23/2015	6/19/2015	DMN	2/9/2016	NJH	09/01/2021	DMN	03/31/2023	JTB
DESIGNED DMN	CHECKED DMN								
DRAWN RDH	DATE APPROVED 3/23/2015								
APPROVED BY	STANDARD SPECIFICATIONS								

DETAIL NO.
D-200

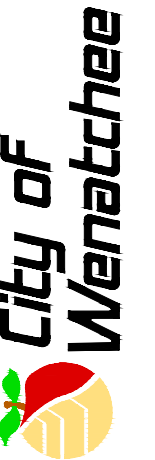
PAGE
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NOTES:

1. CAST IRON COVER SHALL READ EITHER "STORM" OR "DRAIN".
2. FOR USE IN PAVEMENT.

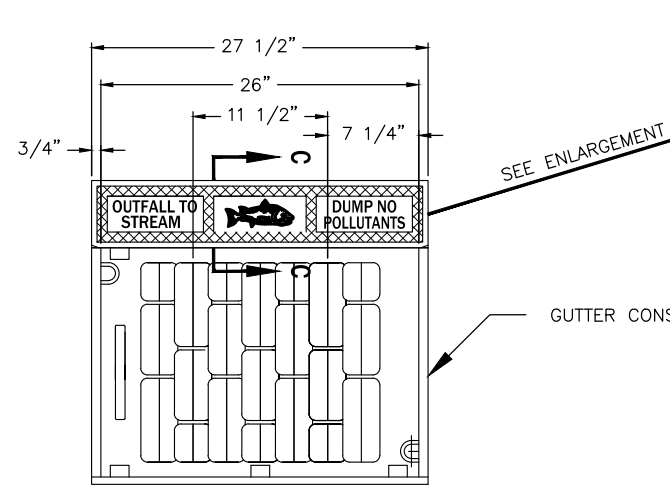
**STANDARD DETAIL
STORM CLEANOUT FOR
DRIVEWAY AREAS**



SCALE: AS SHOWN	DATE DRAWN 12/11/2020	REVISIONS		
		DATE	INITIAL	
DESIGNED	CHECKED	01/01/2022	AJS	
APPROVED BY	DATE APPROVED	03/31/2023	JTB	
STANDARD SPECIFICATIONS				

DETAIL NO.
D-210

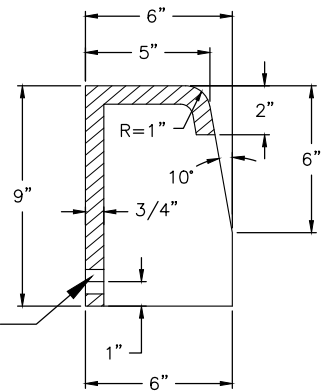
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SEE ENLARGEMENT

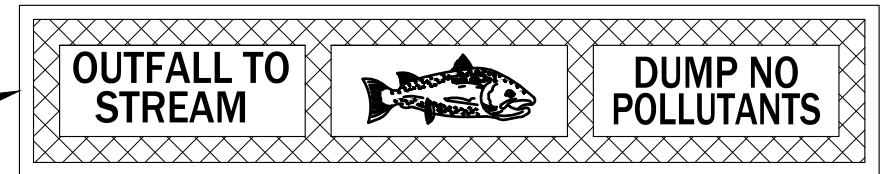
GUTTER CONSTRUCTION (SEE NOTE 5)

HOOD DETAIL

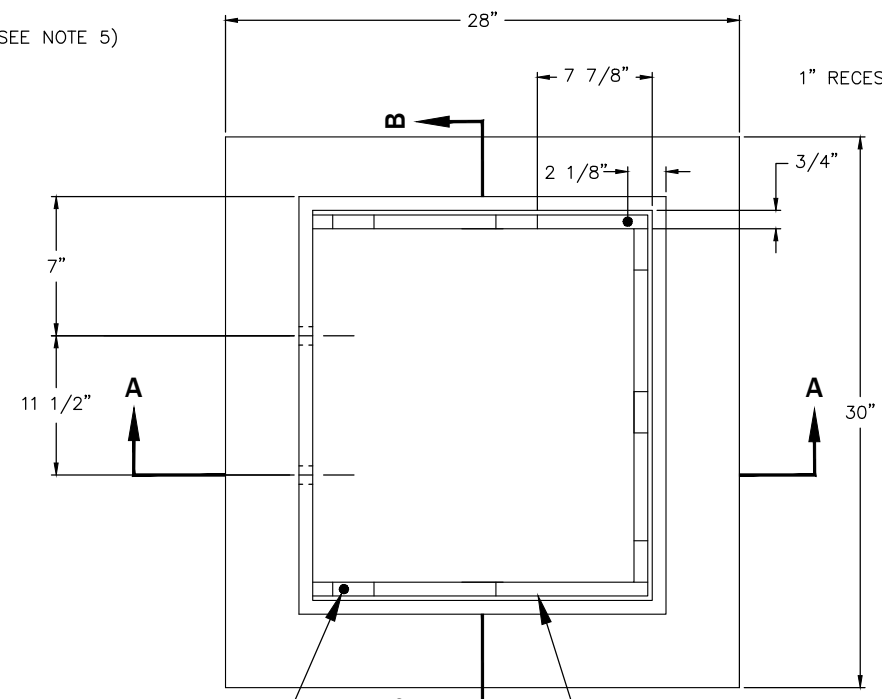


SECTION C-C

2-1" DIA. HOLES FOR 3/4" BOLT, WASHER & NUT, (SEE NOTE 3)



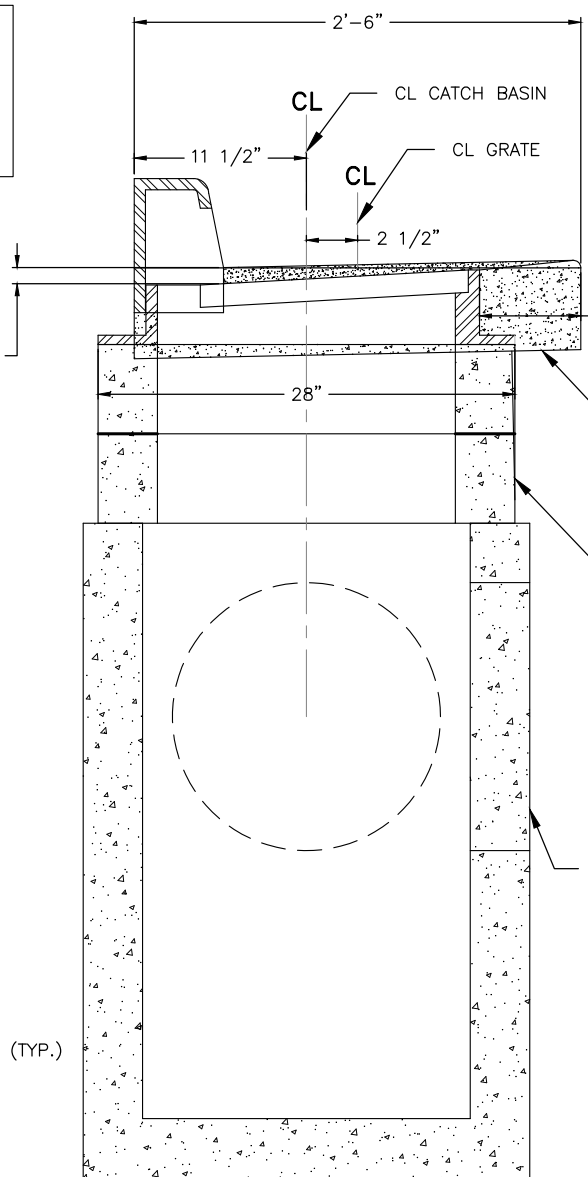
HOOD ENLARGEMENT



PLAN

DRILL & TAP TWO 5/8"-11NC HOLES THRU FRAME

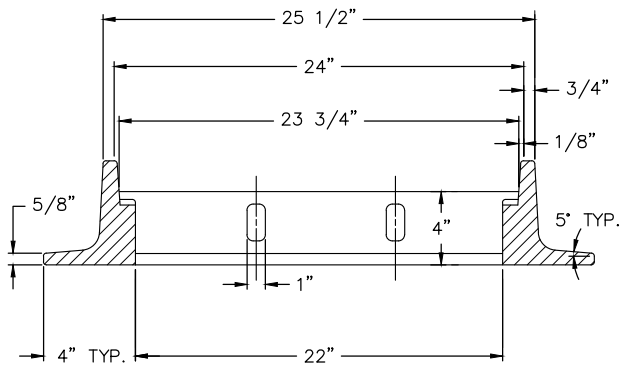
LEVELING PAD 7 1/8" X 3/4" X 2 1/4" (TYP.)



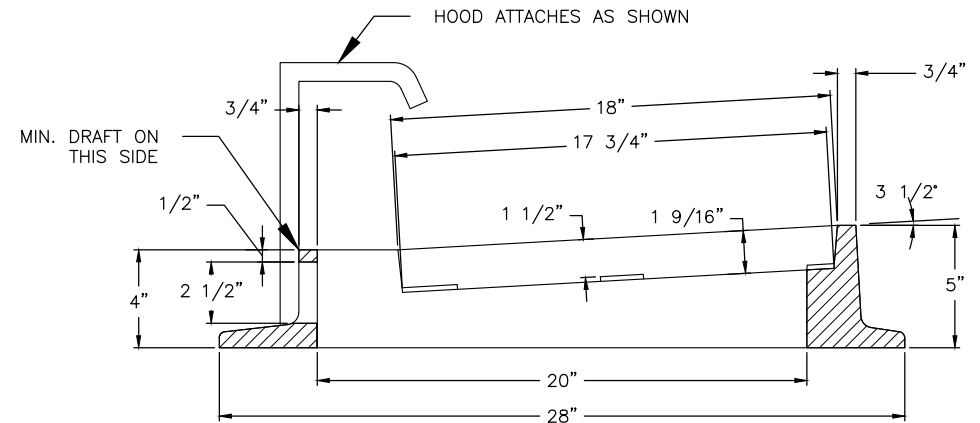
GUTTER PER C.O.W. DETAIL R-110.

ADJUSTMENT PER WSDOT STD. PLAN B-30.90

WSDOT STD PLAN B-5.20 CATCH BASIN TYPE 1 AS SHOWN.



SECTION B-B



SECTION A-A

THROUGH CURB INLET NOTES:

1. MATERIAL IS CAST IRON ASTM A48 CLASS 30.
2. PATTERN ON TOP SURFACE OF HOOD SHALL BE 3/16-INCH NON-SKID DIAMOND.
3. BOLT, WASHER, AND NUT SHALL BE GALV. OR CORROSION RESISTANT.
4. THROUGH CURB INLET EQUAL TO OLYMPIC SM52(05).
5. GUTTER SHALL BE CONSTRUCTED PER CITY OF WENATCHEE DETAIL R-100.

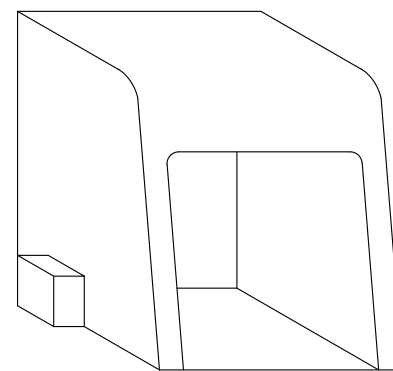
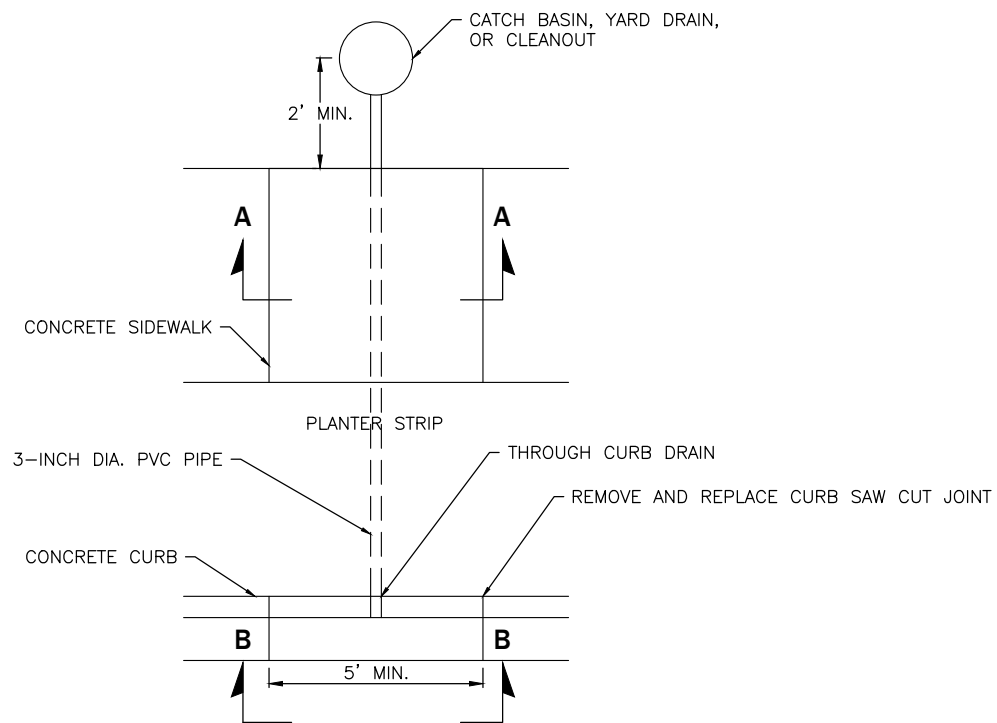
NOTES:

1. THIS INLET REQUIRES THE PRECAST CATCH BASIN UNIT TO BE ROTATED 90 DEGREES SO THAT THE NARROW SIDE IS PARALLEL TO THE CURB LINE. WHEN CALCULATING OFFSETS FROM CURB TO CL OF THE PRECAST CATCH BASIN, PLEASE NOTE THAT THE CL OF THE GRATE IS NOT THE CL OF THE PRECAST CATCH BASIN. SEE SECTION A
2. THE DIMENSIONS OF THE FRAME AND HOOD MAY VARY SLIGHTLY AMONG DIFFERENT MANUFACTURERS. THE FRAME MAY HAVE CAST FEATURES INTENDED TO SUPPORT A DEBRIS GUARD. HOOD UNITS MAY BE MOUNTED INSIDE OR OUTSIDE OF THE FRAME. 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-INCH X 2-INCH HEX HEAD BOLTS, NUTS, AND OVERSIZE WASHERS. THE WASHERS SHALL HAVE DIAMETERS ADEQUATE TO ENSURE FULL BEARING ACROSS THE SLOTS.
4. ONLY DUCTILE IRON VANED GRATES SHALL BE USED. SEE WSDOT STANDARD PLANS RECTANGULAR GRATE B-30.30 AND BI-DIRECTIONAL GRATE B-30.40 FOR GRATE DETAILS.
5. THIS PLAN IS INTENDED TO SHOW THE INSTALLATION DETAILS OF A MANUFACTURED PRODUCT. THIS PLAN IS NOT INTENDED TO SHOW THE SPECIFIC DETAILS NECESSARY TO FABRICATE THE CASTINGS DEPICTED IN THIS DRAWING.

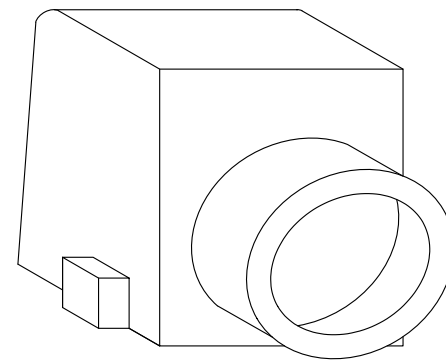
**STANDARD DETAIL
THROUGH CURB INLET**



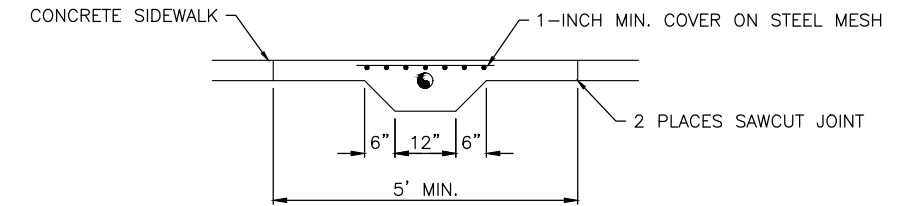
SCALE: AS SHOWN	DATE DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS							
					DATE	INITIAL	RDH	RDH	DMN	JTB		
	2/21/2006	SK	RLK	DMN	4/9/2015	RDH	4/13/2015	DMN	7/25/2016	DMN	03/31/2023	JTB



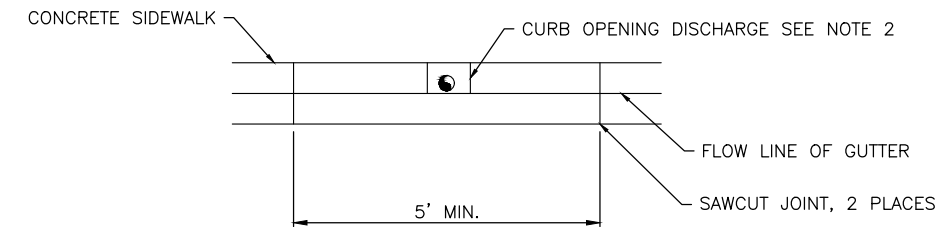
CURB DRAIN FRONT



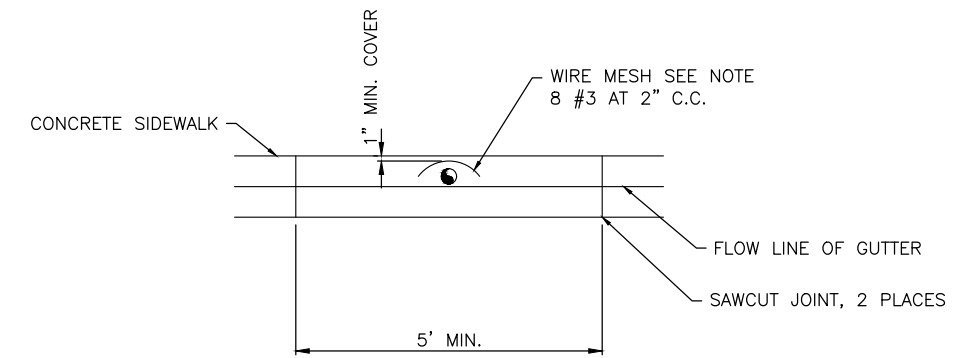
CURB DRAIN BACK



SECTION A-A
N.T.S.



SECTION B-B
N.T.S.



SECTION B-B (ALTERNATE)
N.T.S.

NOTES:

- PIPE SHALL BE 3-INCH DIAMETER PVC PLASTIC PIPE (SCH 40).
- USE NEENAH FOUNDRY PRODUCT R-3262-3 OR EQUAL AS APPROVED BY CITY.
- CEMENT CONCRETE SHALL BE CLASS B (3-INCH).
- REINFORCING BAR SHALL BE #3 (3/8-INCH DEFORMED BAR).
- SIDEWALK AND CURBING MUST BE SAW-CUT AT A DUMMY JOINT OR REMOVED TO A FULL EXPANSION JOINT.
- SIDEWALK THICKNESS OF 4-INCH MINIMUM.
- FULL DEPTH OF CURB AND GUTTER MUST BE REMOVED AND REPLACED.
- WIRE MESH SHALL BE 3X3 10 GAUGE.
- ALTERNATE TO BE USED ONLY WITH APPROVAL FROM CITY.
- ONLY FOR USE IN AREAS WITHOUT EXISTING STORM SYSTEMS

**STANDARD DETAIL
RESIDENTIAL SIDEWALK
DRAIN**



SCALE: AS SHOWN	DATE DRAWN	REVISIONS		DATE APPROVED	STANDARD SPECIFICATIONS
		DATE	INITIAL		
DESIGNED	12/11/2020	01/01/2022	AJS		
DRAWN	CHECKED	03/31/2023	JTB		
APPROVED BY					

DETAIL NO.
D-310

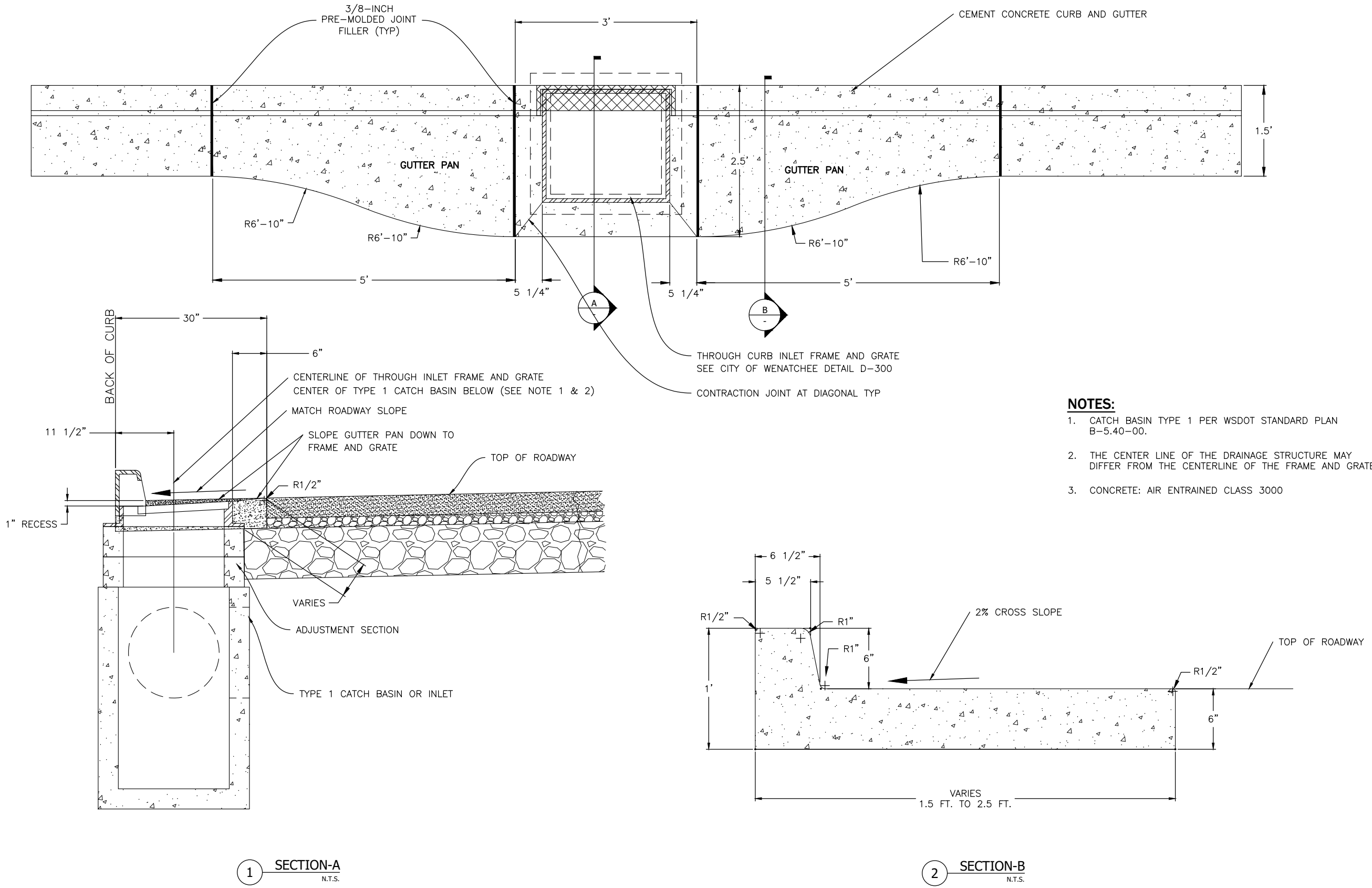
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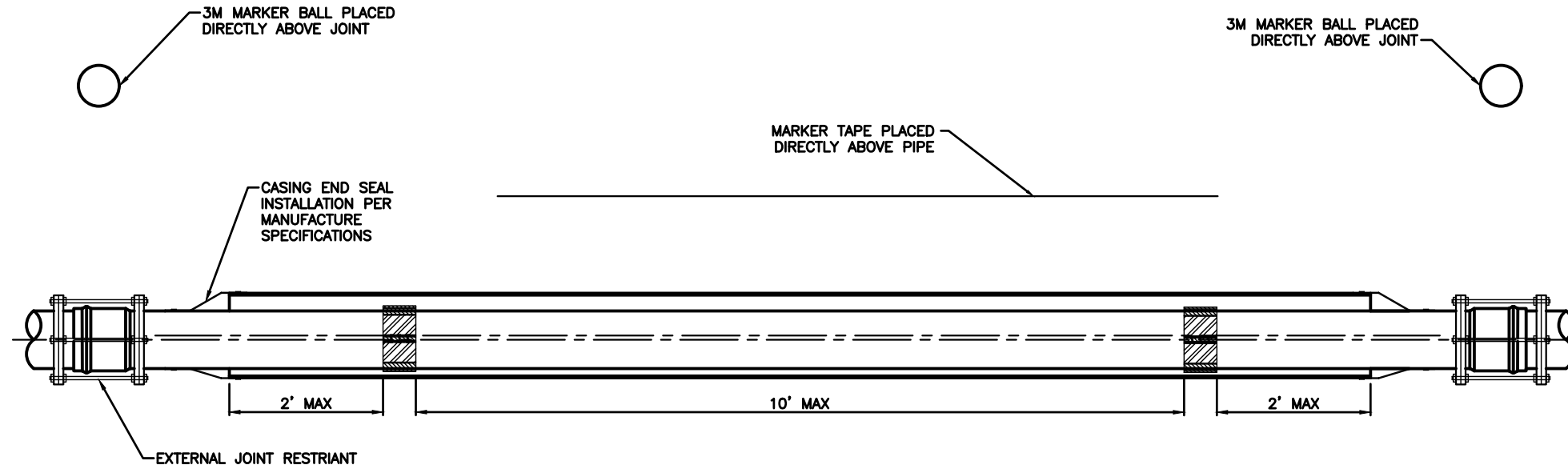
**STANDARD DETAIL
GUTTER PAN AT
THROUGH CURB INLET**



SCALE: AS SHOWN	DATE DRAWN 5/31/2011	REVISIONS					
		DATE	INITIAL	BY	DATE	INITIAL	BY
DESIGNED DMN	CHECKED	10/19/2012	DMN	RDH	4/9/2015	DMN	CAW
APPROVED BY	DATE APPROVED	12/21/2020	CAW	AJS	01/01/2022	AJS	JTB
STANDARD SPECIFICATIONS 8-04 CURBS, GUTTERS, AND SPILLWAYS							

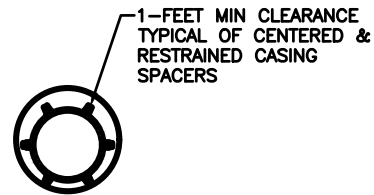
DETAIL NO.
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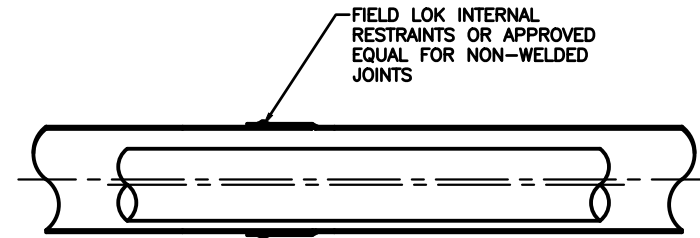


NOTES:

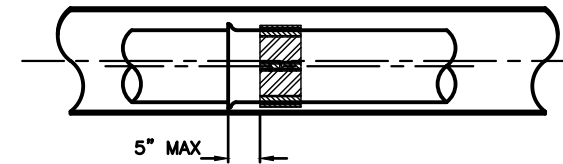
- CARRIER PIPE SHALL BE USED AS REQUIRED WITHIN CITY RIGHT-OF-WAY.
- ALL IRRIGATION PIPE LOCATED WITHIN CITY RIGHT-OF-WAY SHALL BE PVC C900 OR AS APPROVED BY CITY.
- ALL JOINTS THROUGHOUT CASING SHALL BE RESTRAINED WITH FIELD LOC INTERNAL RESTRAINTS OR APPROVED EQUAL.
- RESTRAIN CARRIER PIPE ONE JOINT BEYOND END SEALS.
- MANUFACTURED CASING SPACER INTERVAL PER MANUFACTURER'S SPECIFICATIONS BUT NOT MORE THAN 10- FEET. MINIMUM 3 SPACERS PER PIPE LENGTH.
- CASING SHALL BE WELDED STEEL OR DUCTILE IRON FOR INSTALLATIONS LESS THAN 3- FEET BELOW ROAD GRADE. CPE MAY BE SUBSTITUTED FOR AREAS OUTSIDE OF PAVED ROADWAY.
- CASING PIPE LENGTHS SHALL BE OF THE LONGEST AVAILABLE LENGTH OF PIPE FROM MANUFACTURER
- NON- WELDED STEEL CASING SHALL BE EXTERNALLY RESTRAINED AT ALL JOINTS UNLESS FIELD LOK GASKET IS USED.
- 3M MARKER BALL TO BE PLACED DIRECTLY ABOVE JOINT RESTRAINT AT END OF PIPE.
- DETECTABLE MARKER TAPE TO BE INSTALLED 12- INCH TO 14- INCH ABOVE PIPE CASING. COLOR SHOULD BE ACCORDING TO APWA UNIFORM COLOR CODE FOR MARKING UNDERGROUND UTILITIES. DETECTABLE MARKING TAPE SHALL CONSIST OF INERT POLYETHYLENE PLASTIC THAT IS IMPERVIOUS TO ALL KNOWN ALKALIS, ACIDS, CHEMICAL REAGENTS, AND SOLVENTS LIKELY TO BE ENCOUNTERED IN THE SOIL, WITH A METALLIC FOIL CORE TO PROVIDE FOR THE MOST POSITIVE DETECTION AND PIPELINE LOCATION. DETECTABLE MARKING TAPE SHALL BE NO LESS THAN 2- INCH WIDE, TYPE OF BURIED UTILITY SHOULD BE CLEARLY MARKED CONTINUOUSLY ALONG THE LENGTH OF THE RIBBON WITH MINIMUM 1-1/2 INCH LETTERS IN THE FOLLOWING FORMAT: "CAUTION BURIED (UTILITY TYPE) LINE"



CASING SPACERS DETAIL
N.T.S.



NON WELDED JOINT DETAIL
N.T.S.



SPACER DISTANCE FROM BELL DETAIL
N.T.S.

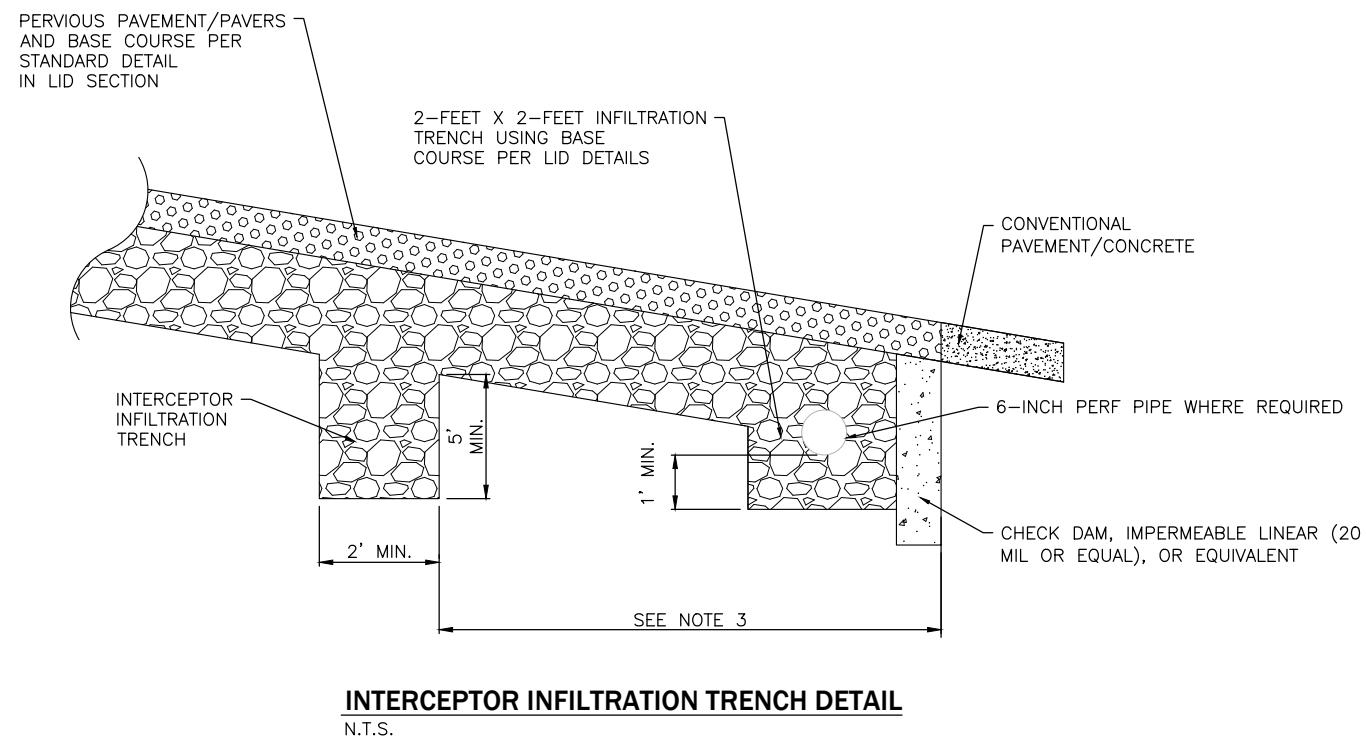
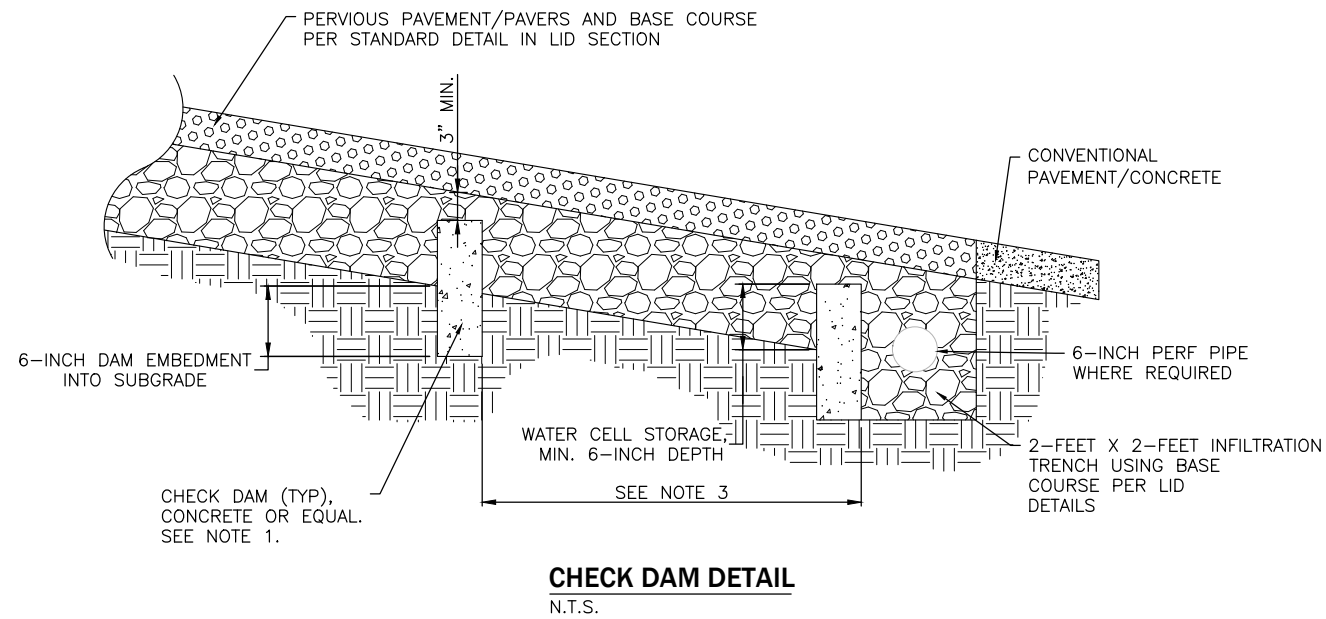
STANDARD DETAIL
CARRIER PIPE



SCALE: AS SHOWN	DESIGNED BY JB	APPROVED BY	DATE APPROVED	REVISIONS			
				DATE	INITIAL	BY	DATE
2/21/2006	SK			12/20/2017	LBV		
				10/27/2020	CAW		
				01/01/2022	AJS		
				03/23/2023	JTB		

DETAIL NO.
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NOTES:

1. CHECK DAM TO BE 6-INCH WIDE CONCRETE. EXTEND DAM INTO NATIVE MATERIAL 6-INCH ON EACH SIDE AS DIRECTED BY ENGINEER.
2. CHECK DAM OR INTERCEPTOR TRENCH REQUIRED FOR LONGITUDINAL SLOPES AT 5% OR GREATER.
3. DISTANCE BETWEEN CHECK DAM OR INTERCEPTOR TRENCH SHALL BE THE FOLLOWING:
 - 5% SLOPE: 10-FEET SPACING
 - 6% SLOPE: 9-FEET SPACING
 - 7% SLOPE: 8-FEET SPACING
 - 8% SLOPE: 7-FEET SPACING
 - 9% SLOPE: 6-FEET SPACING
 - 10% SLOPE: 5-FEET SPACING
4. ONLY PERMEABLE PAVERS ARE ALLOWED WITH SLOPES GREATER THAN 10%; 12% MAXIMUM SLOPE WITH SPACING AT 5-FEET MAXIMUM.
5. NO HORIZONTAL GEOTEXTILE FABRIC UNLESS RECOMMENDED BY GEOTECHNICAL PROFESSIONAL DUE TO POOR SOIL STRENGTH. VERTICAL SEPARATION WITH GEOTECHNICAL FABRIC MAY BE REQUIRED PER ENGINEER, DEPENDENT ON ADJACENT STRUCTURES.

**STANDARD DETAIL
CHECK DAM AND
INTERCEPTOR TRENCH**



SCALE: AS SHOWN	DATE DRAWN: 11/3/2020	REVISIONS:
DESIGNED:	CHECKED:	DATE: 03/31/2023
DRAWN: CAW	DATE APPROVED:	INITIAL: JTB
APPROVED BY:	STANDARD SPECIFICATIONS:	

DETAIL NO.
D-500

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