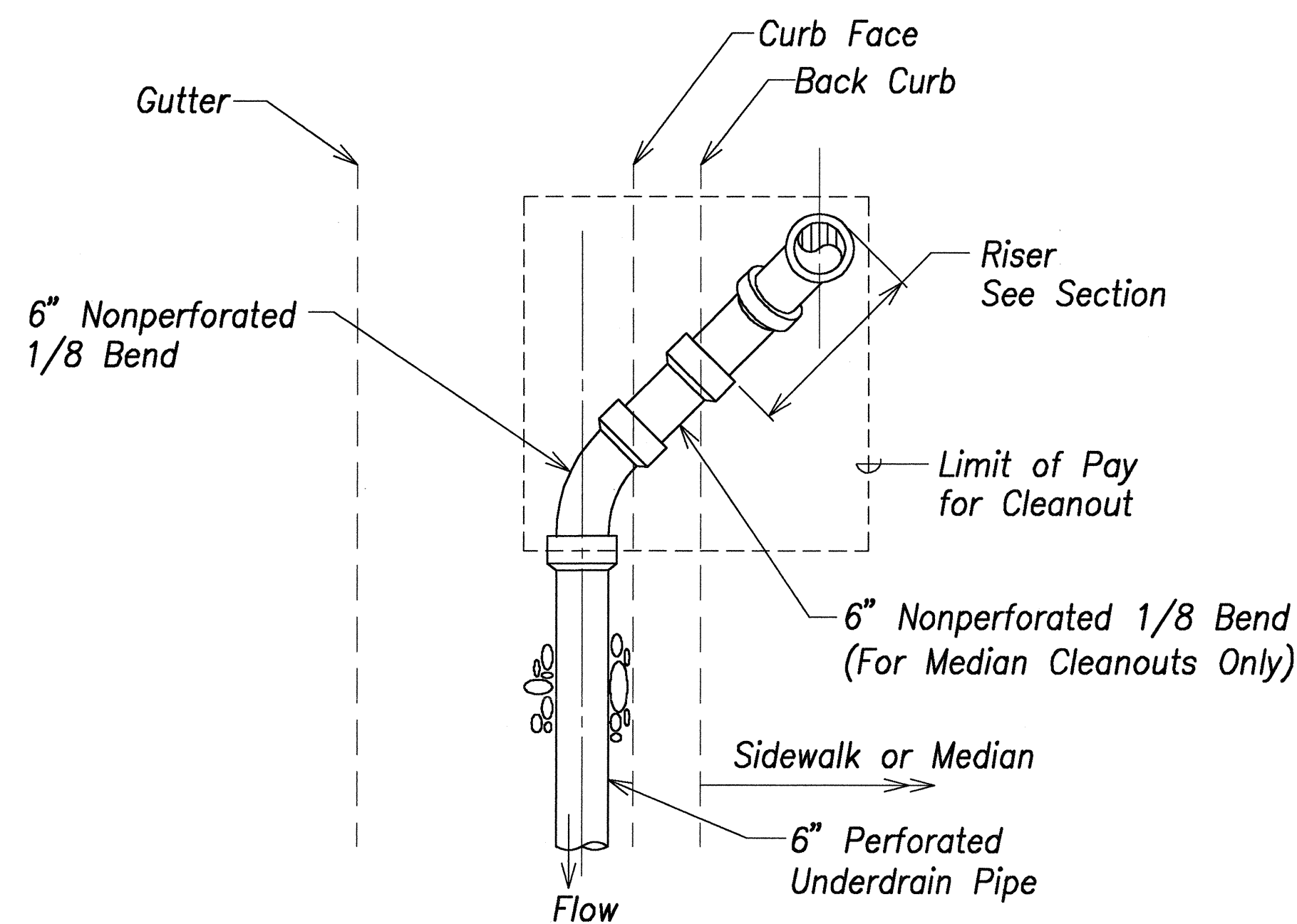
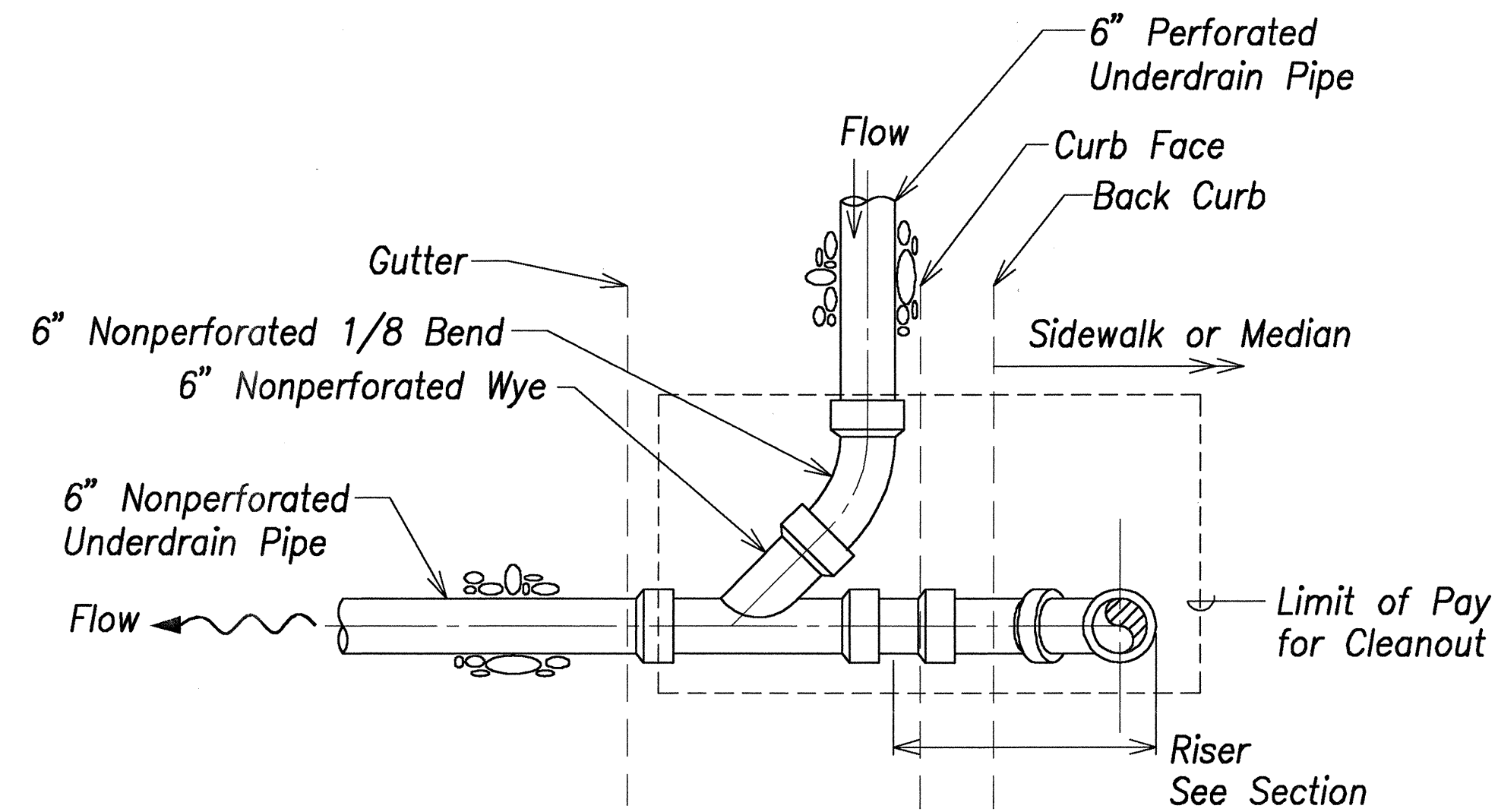


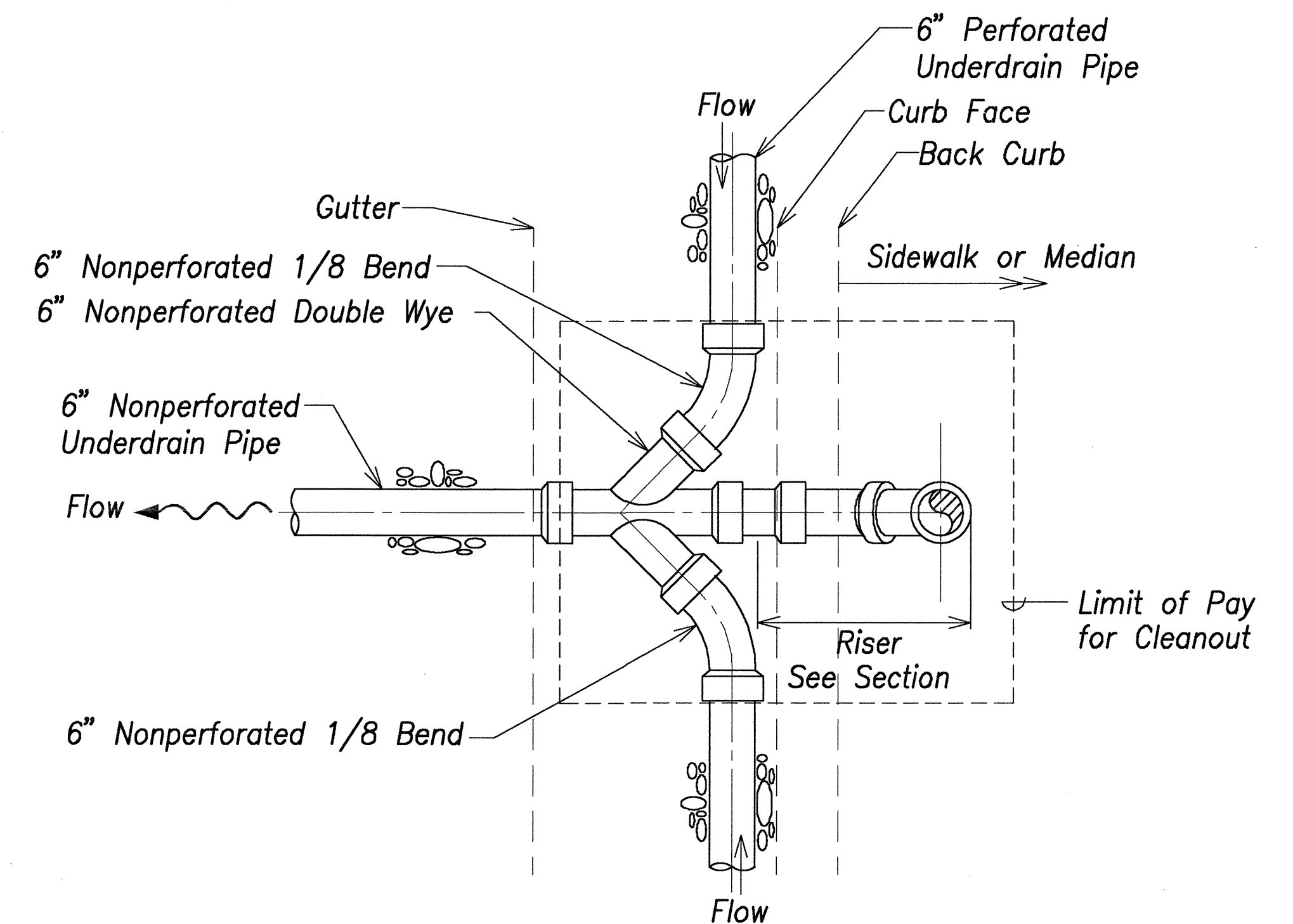
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-8930(2)	2007	89	331



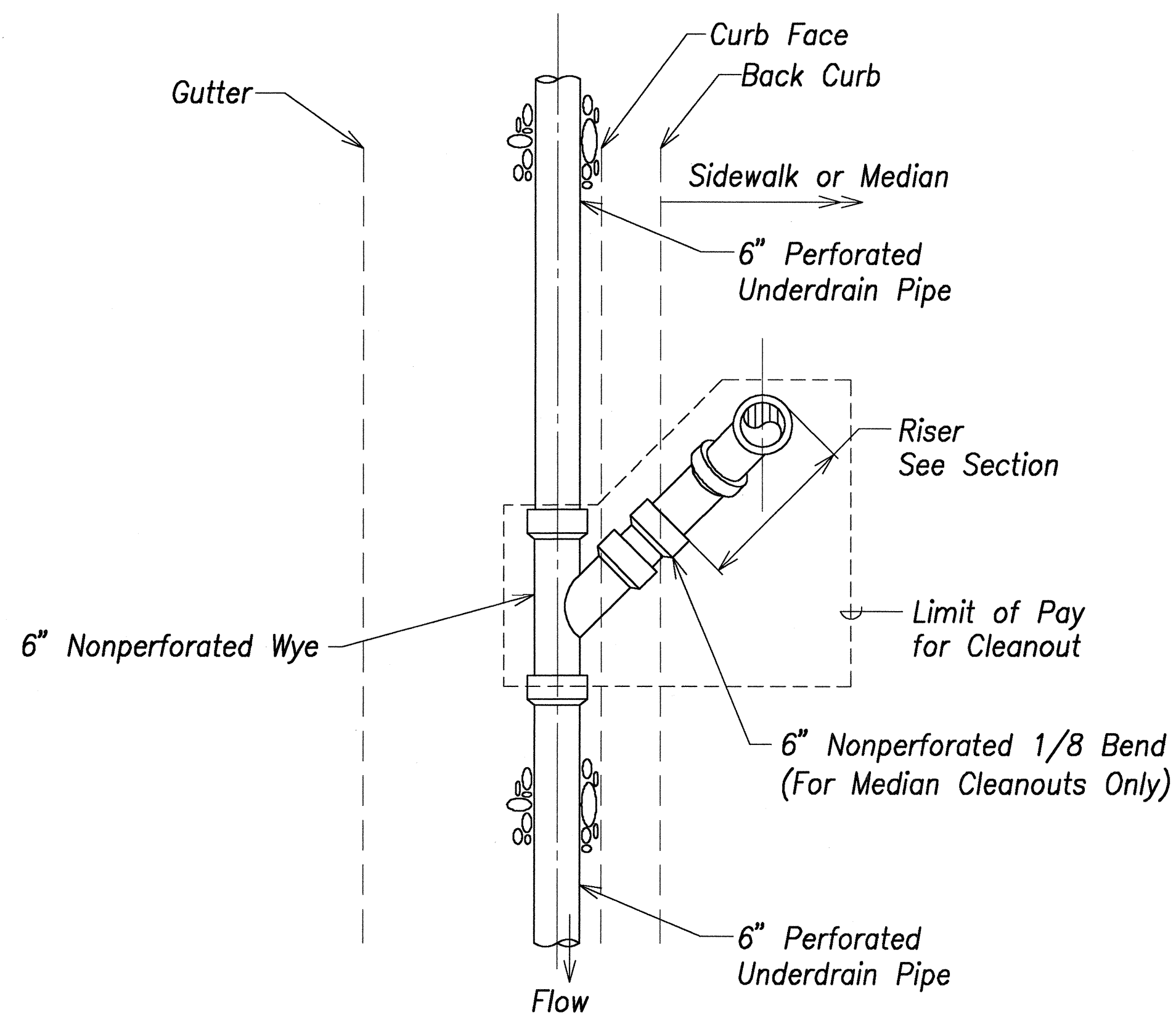
Underdrain Cleanout Type A
Not To Scale



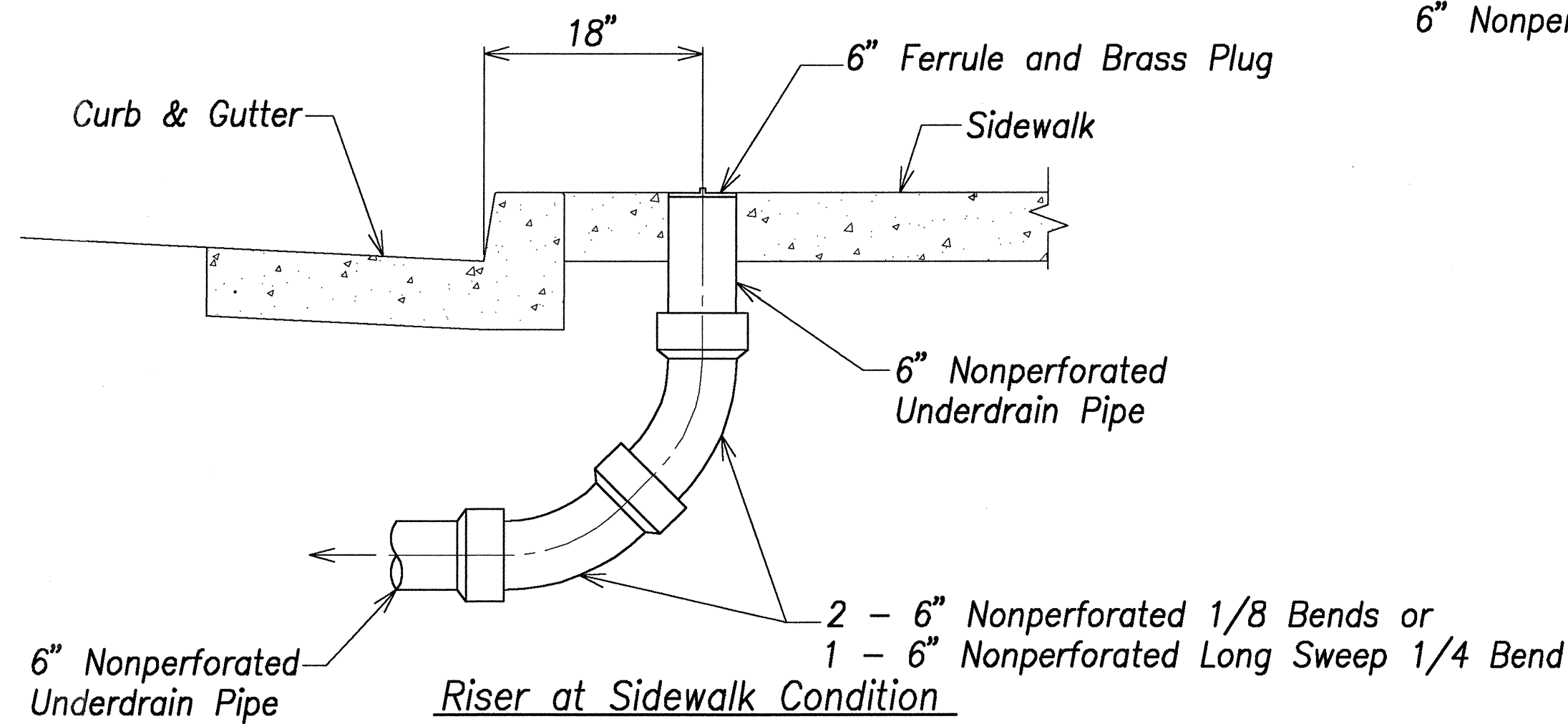
Underdrain Cleanout Type C
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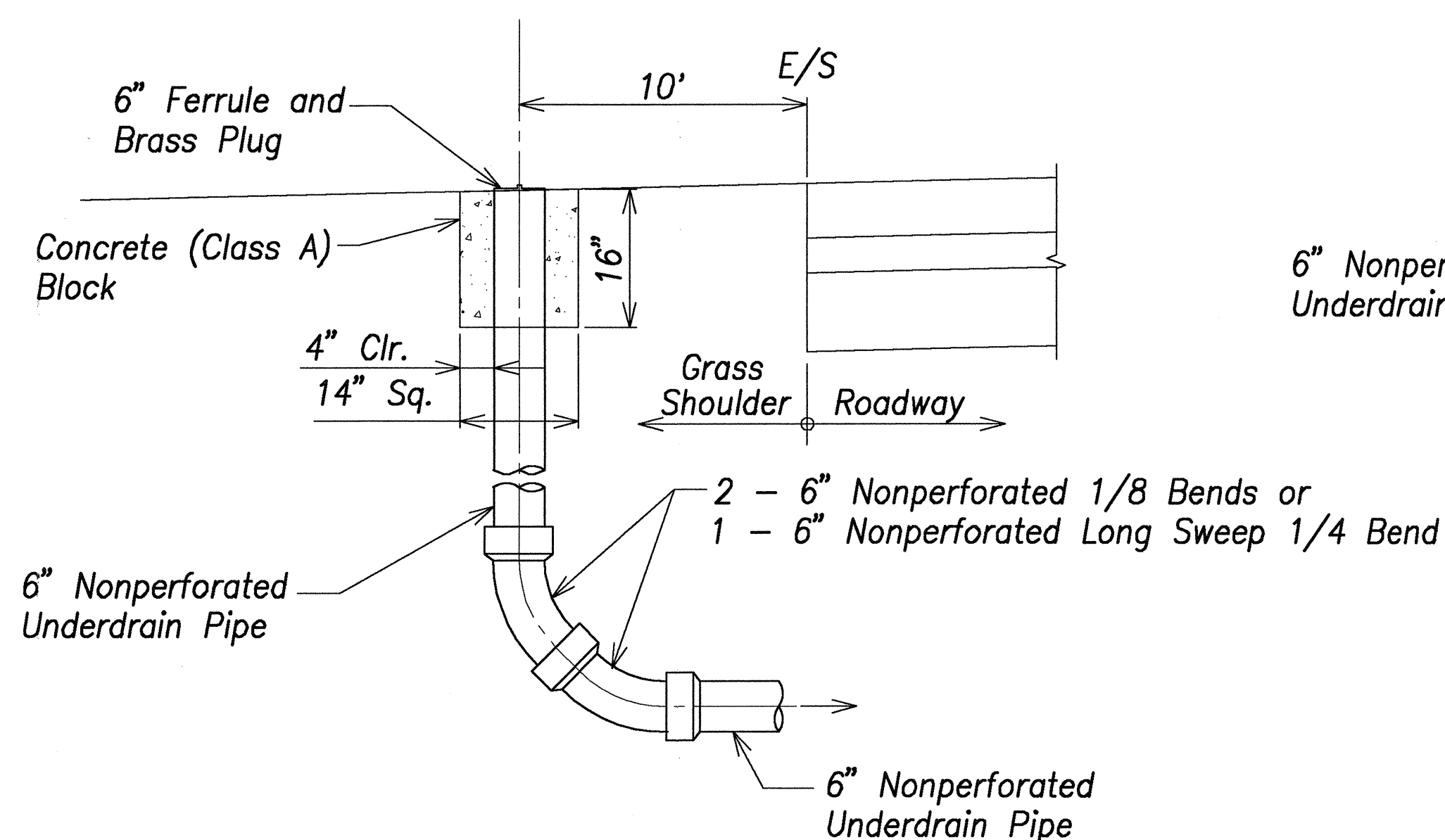
Underdrain Cleanout Type D
Not To Scale



Underdrain Cleanout Type B
Not To Scale

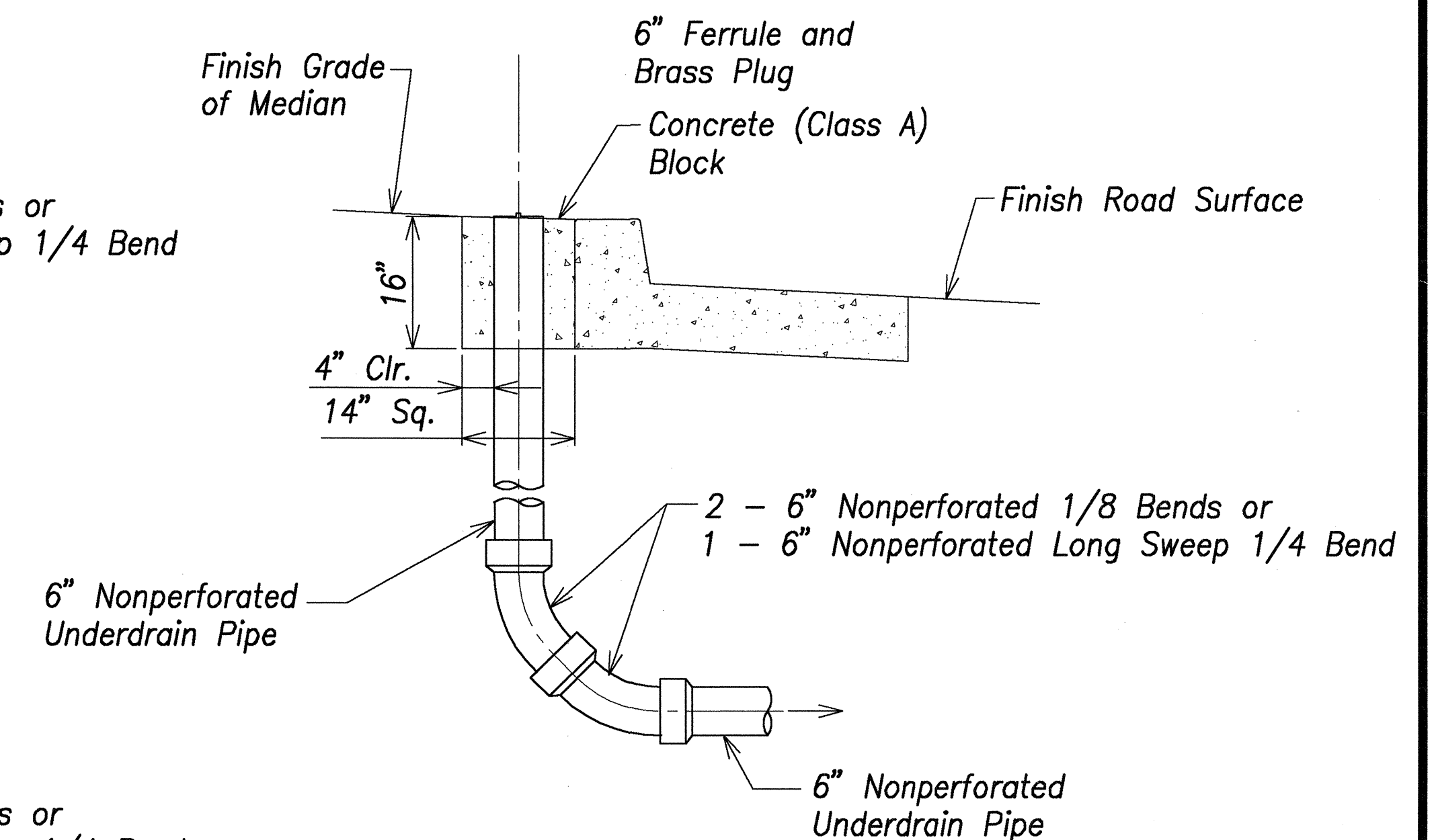


Riser at Sidewalk Condition



Riser along Grass Shoulders

Sections
Not To Scale



Riser along Raised Grass Medians



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
DATE OF LICENSE EXPIRY: APR 30, 2008
SIGNATURE: [Signature]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UNDERDRAIN DETAILS - 1

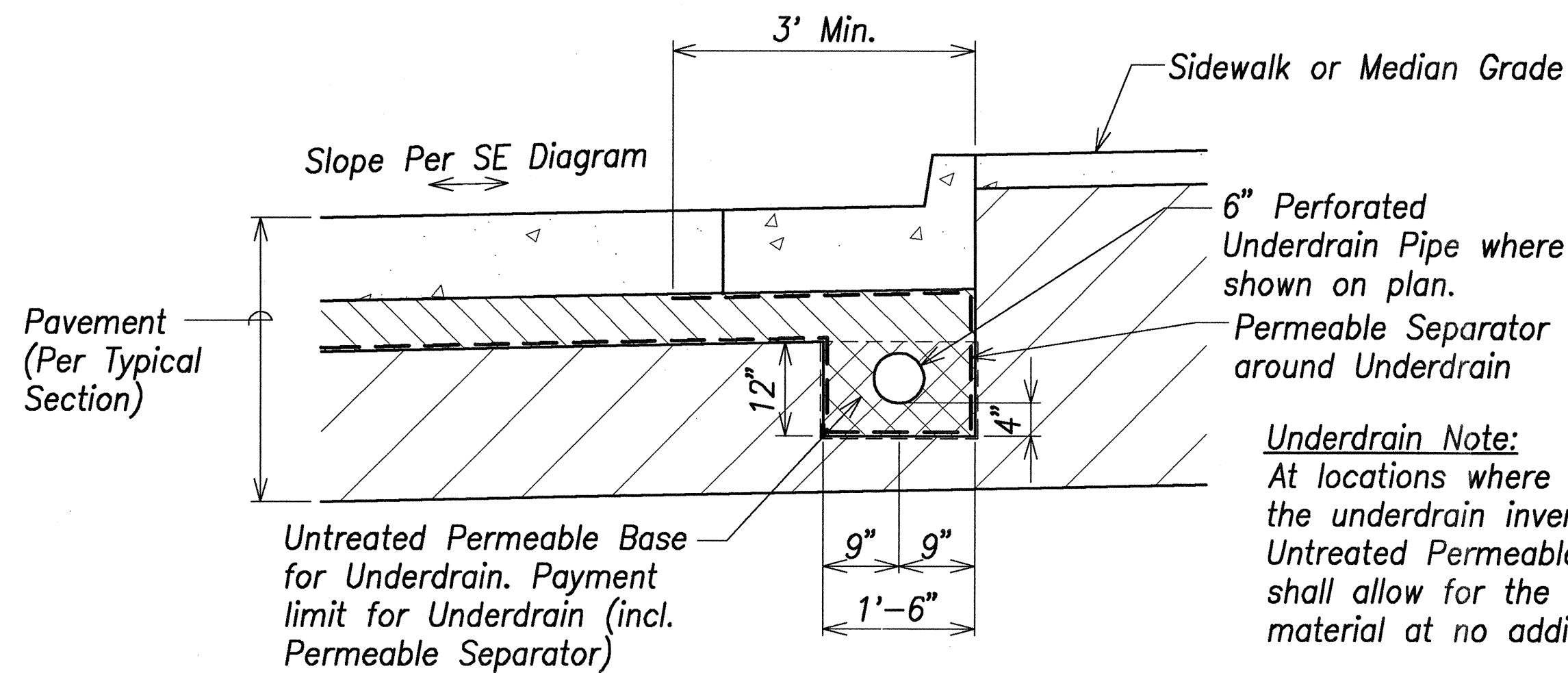
North-South Road
Phase 1B
F.A.I. Proj. No. STP-8930(2)

Scale: Not to Scale Date: Feb 21, 2007

SHEET No. C6.11 OF 150 SHEETS

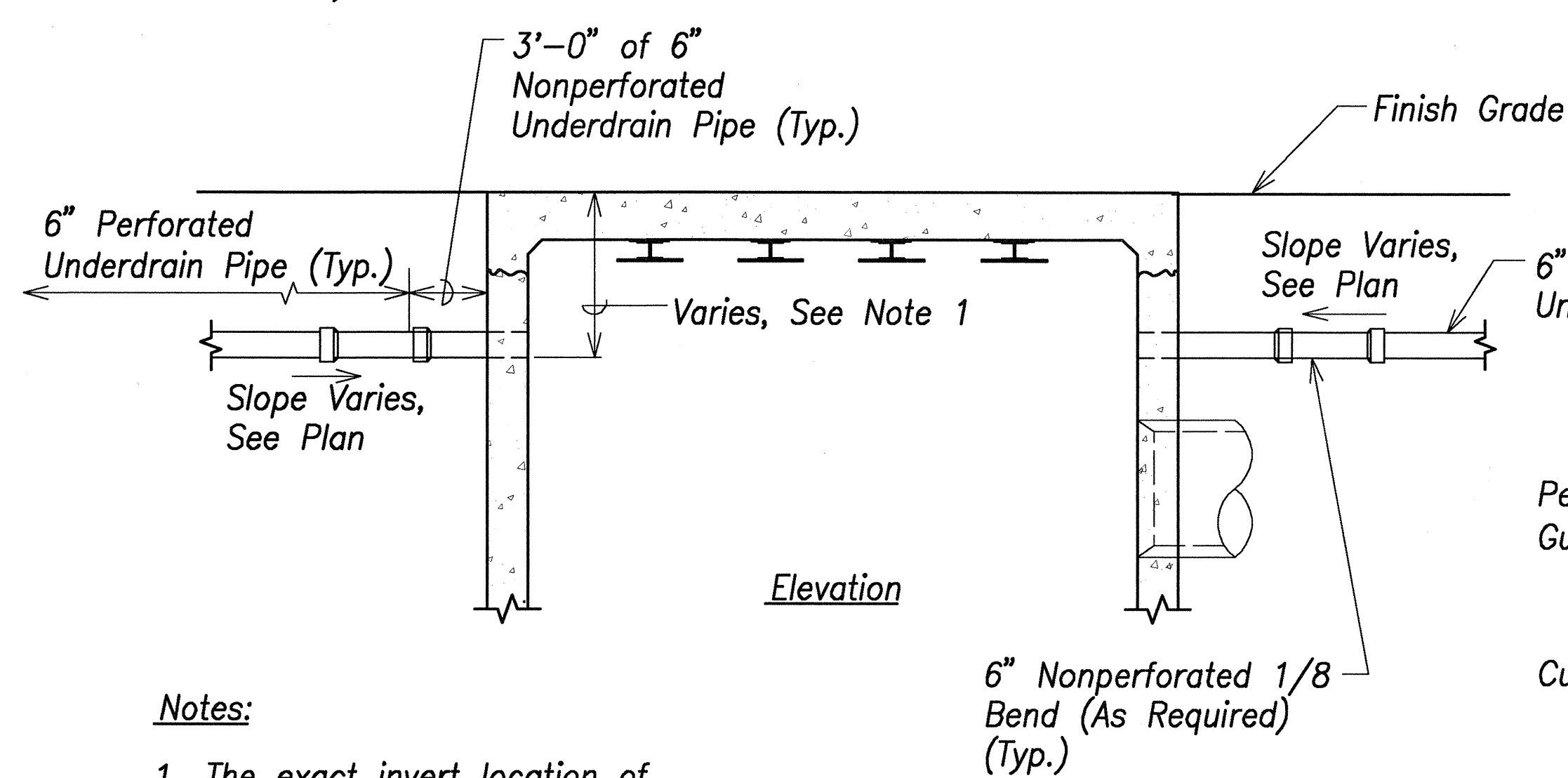
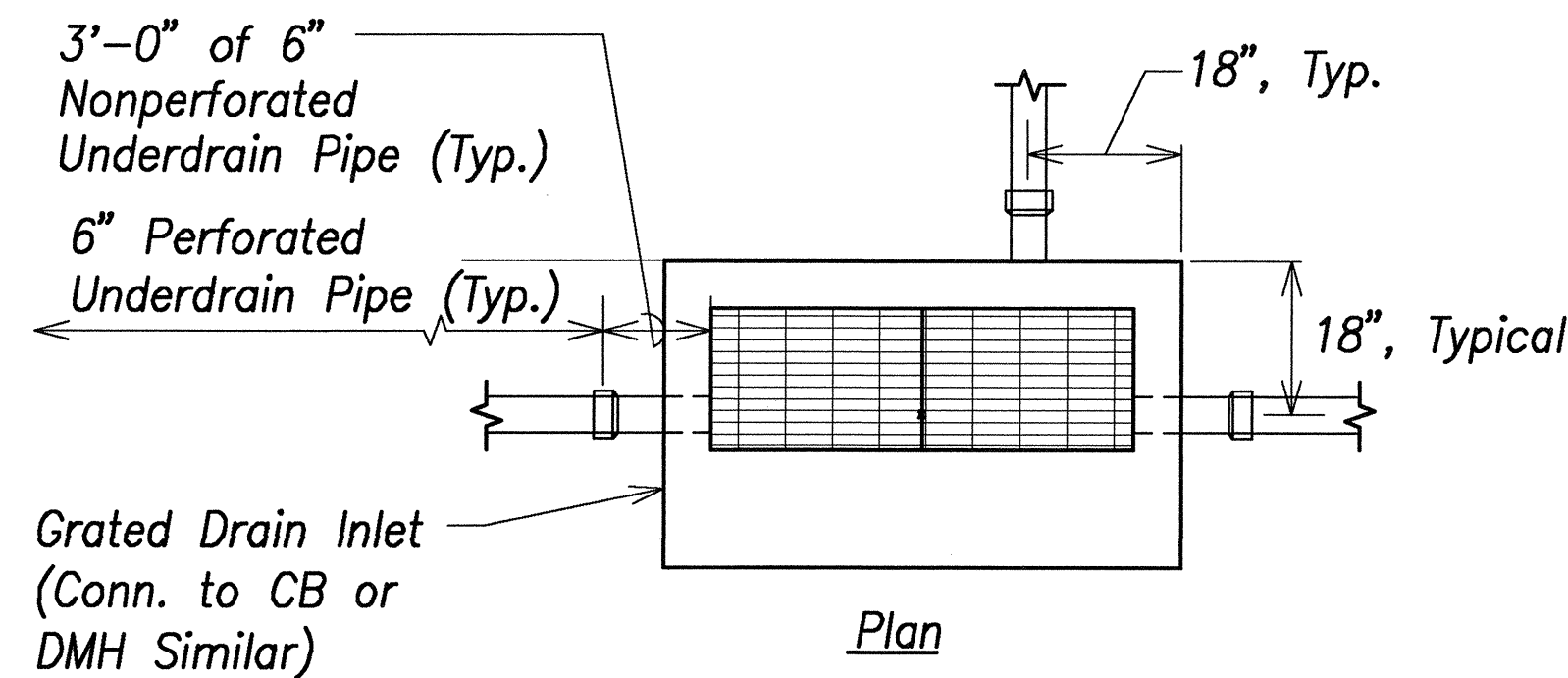
SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-8930(2)	2007	90	331



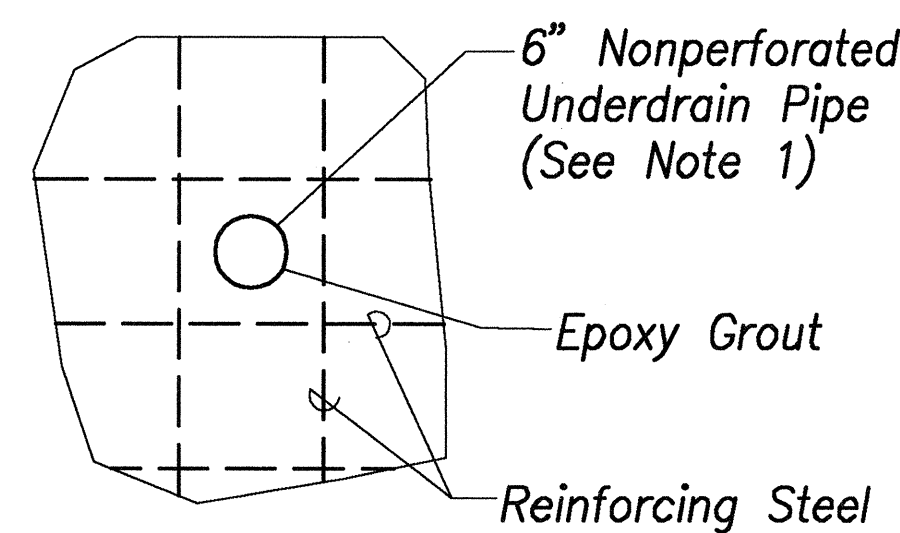
Underdrain Note:
At locations where invert elevations indicate that the underdrain invert will be lower than 8" below Untreated Permeable Base Course, the Contractor shall allow for the required excavation and material at no additional cost to the State.

Underdrain Detail For PCC Pavement
Scale: Not To Scale

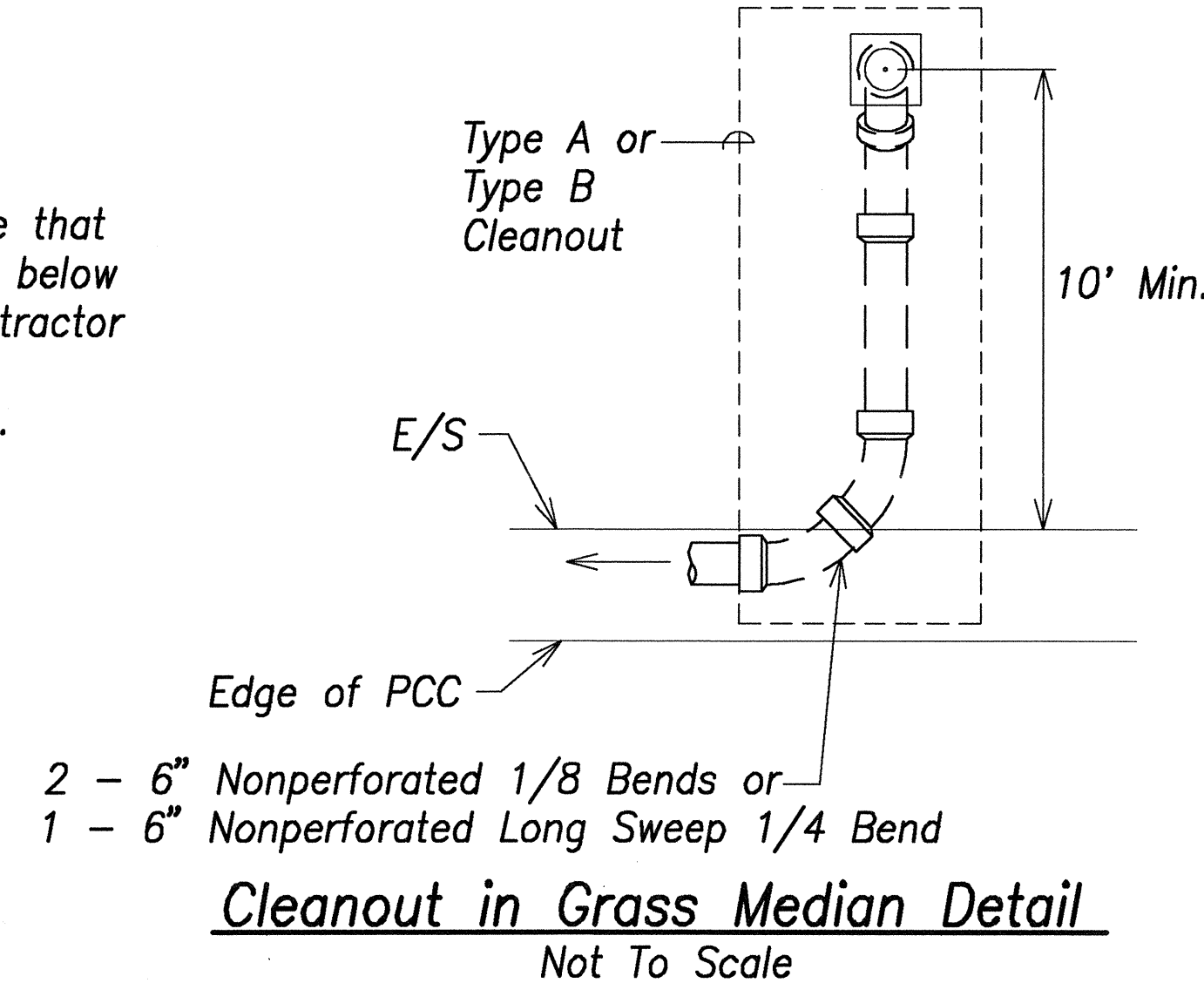


Notes:

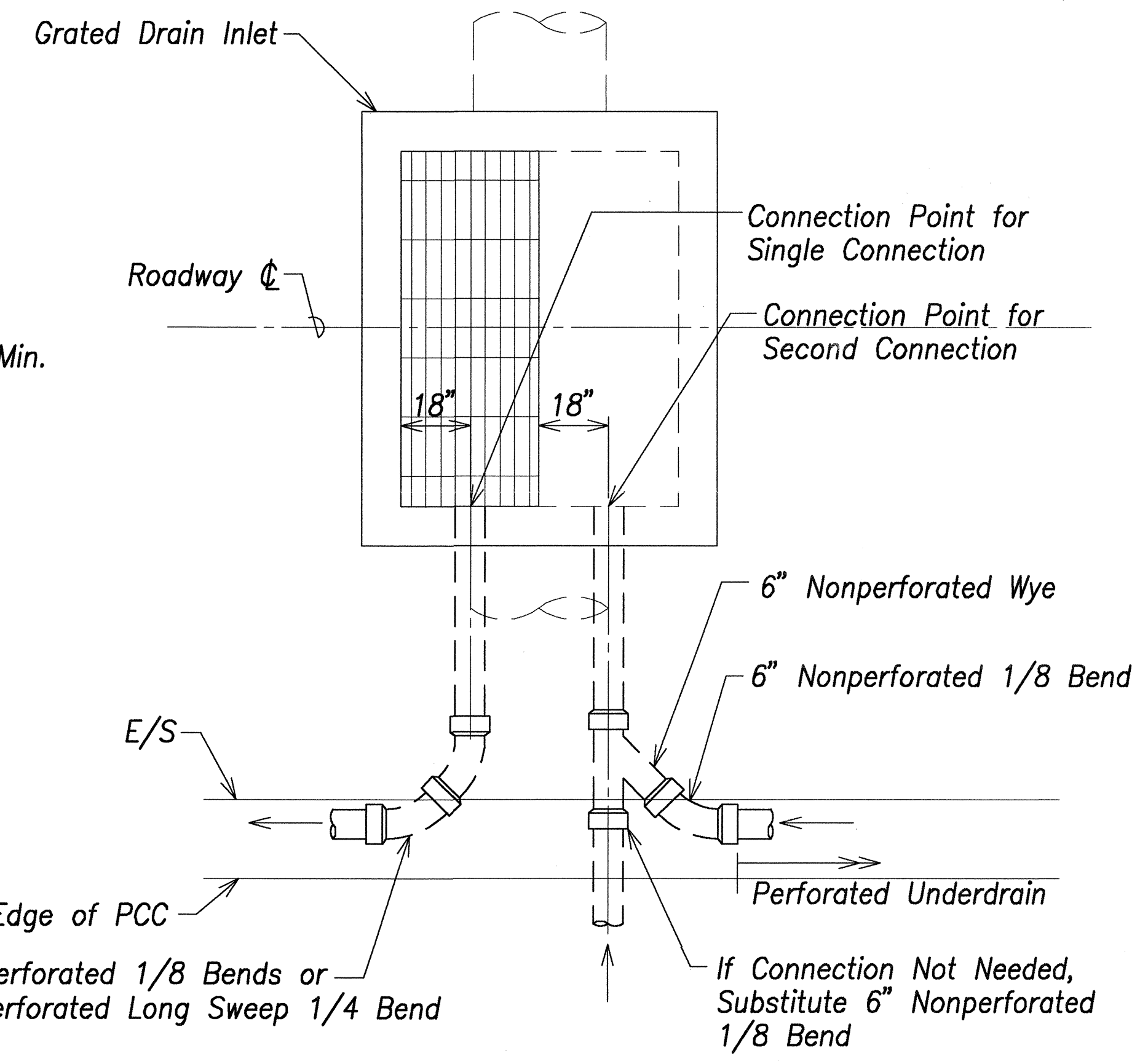
- The exact invert location of the Underdrain Connection shall be adjusted to pass between the Reinforcing Steel.
- 6" Nonperforated Underdrain Pipe Connections at drainage structure, including 3 LF Nonperforated Underdrain Pipe at each connection, shall be incidental to the cost of other contract items.



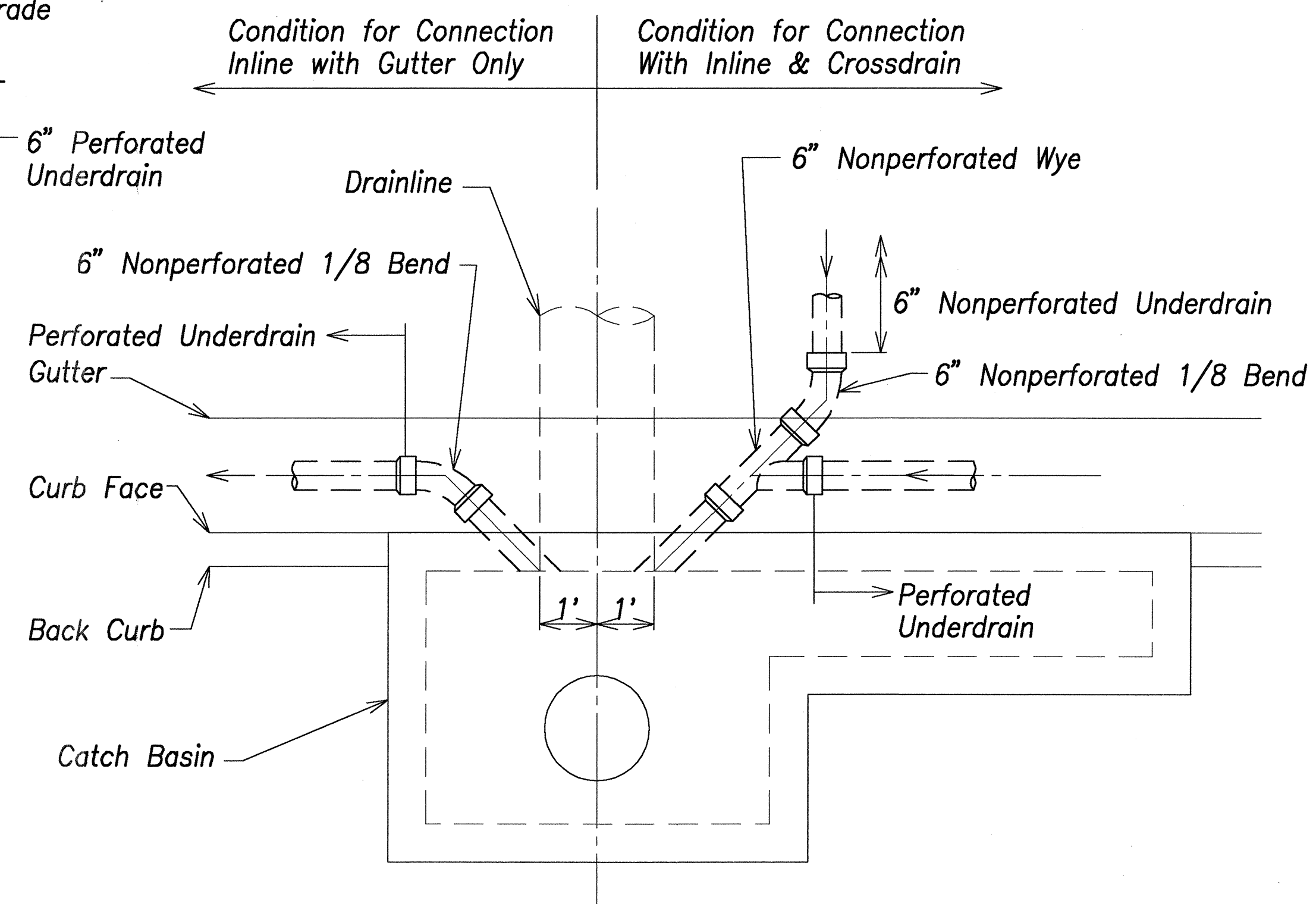
Underdrain Connection to GDI, CB or DMH
Not To Scale



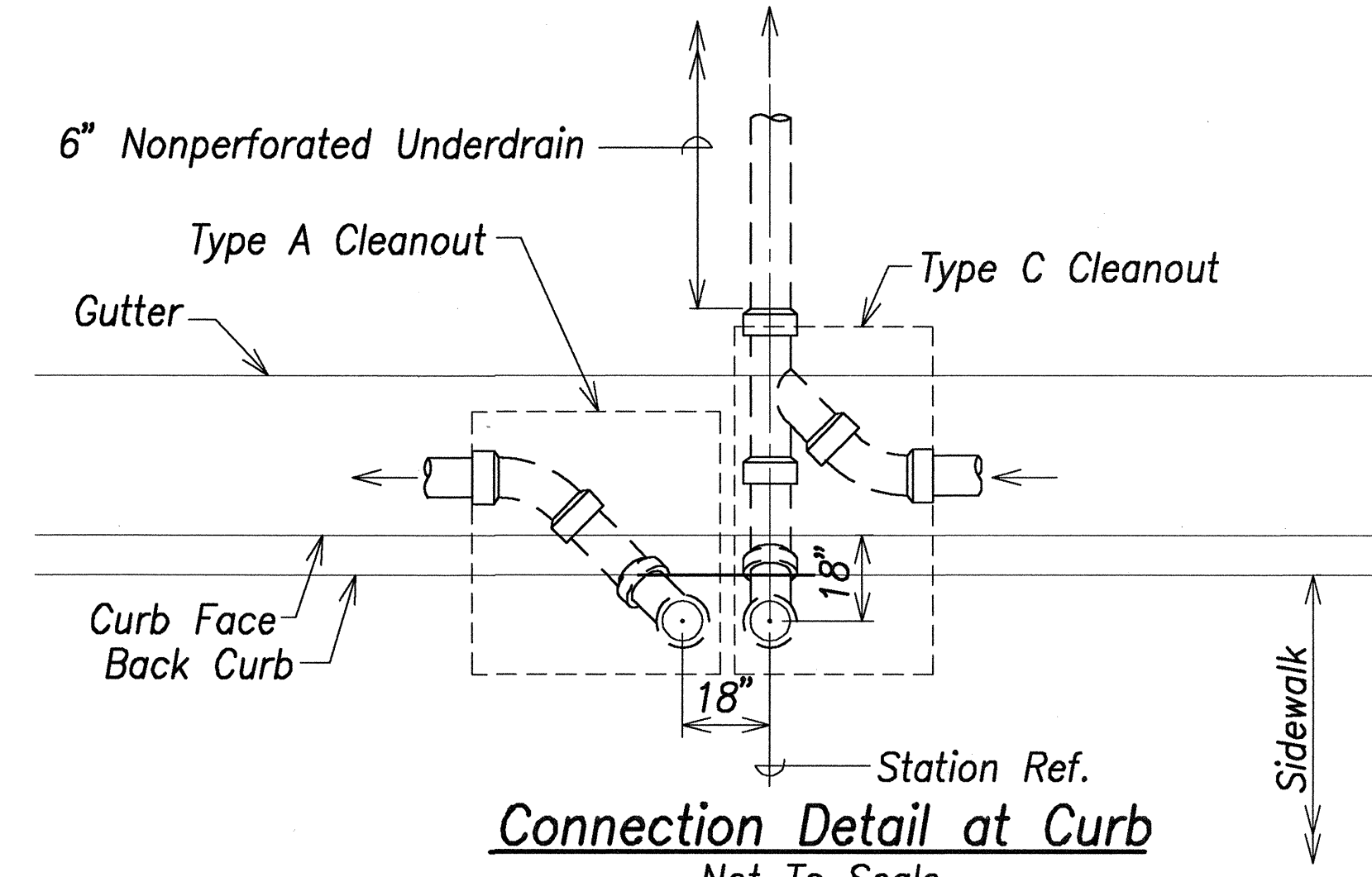
Cleanout in Grass Median Detail
Not To Scale



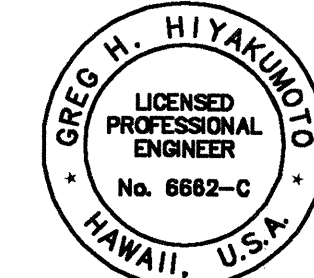
Connection Detail at Grated Drain Inlet
Not To Scale



Connection Detail - Catch Basin
Not To Scale



Connection Detail at Curb
Not To Scale



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DATE OF LICENSE COPY: APR 30, 2008
SIGNATURE: [Signature]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UNDERDRAIN DETAILS - 2

North-South Road
Phase 1B
F.A.I. Proj. No. STP-8930(2)

Scale: Not to Scale Date: Feb 21, 2007

SHEET No. C6.12 OF 150 SHEETS

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