

California High-Speed Rail Authority



RFP No.: HSR 14-32

**Request for Proposals for Design-Build
Services for Construction Package 4**

**Reference Material, Part A.2
Standard Drawings**

DRAINAGE

DRAWING TYPE	DRAWING NO.	DRAWING TITLE
SD	SD-CD-900	TRACK DRAIN/UNDERDRAIN, CLEANOUT AND RISER DETAILS
SD	SD-CD-901	DITCH DETAILS
SD	SD-CD-902	STORM DRAIN HOLES
SD	SD-CD-903	RETAINING WALL DRAINAGE DETAILS

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CAHSR.tb1 CHSR_half_black.plt

1/24/2014 3:48:14 PM Cheung

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
R. MINCIO

DRAWN BY
V. HUANTE

CHECKED BY
H. NGUYEN

IN CHARGE
J. CHIRCO

DATE
01/24/2014



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION

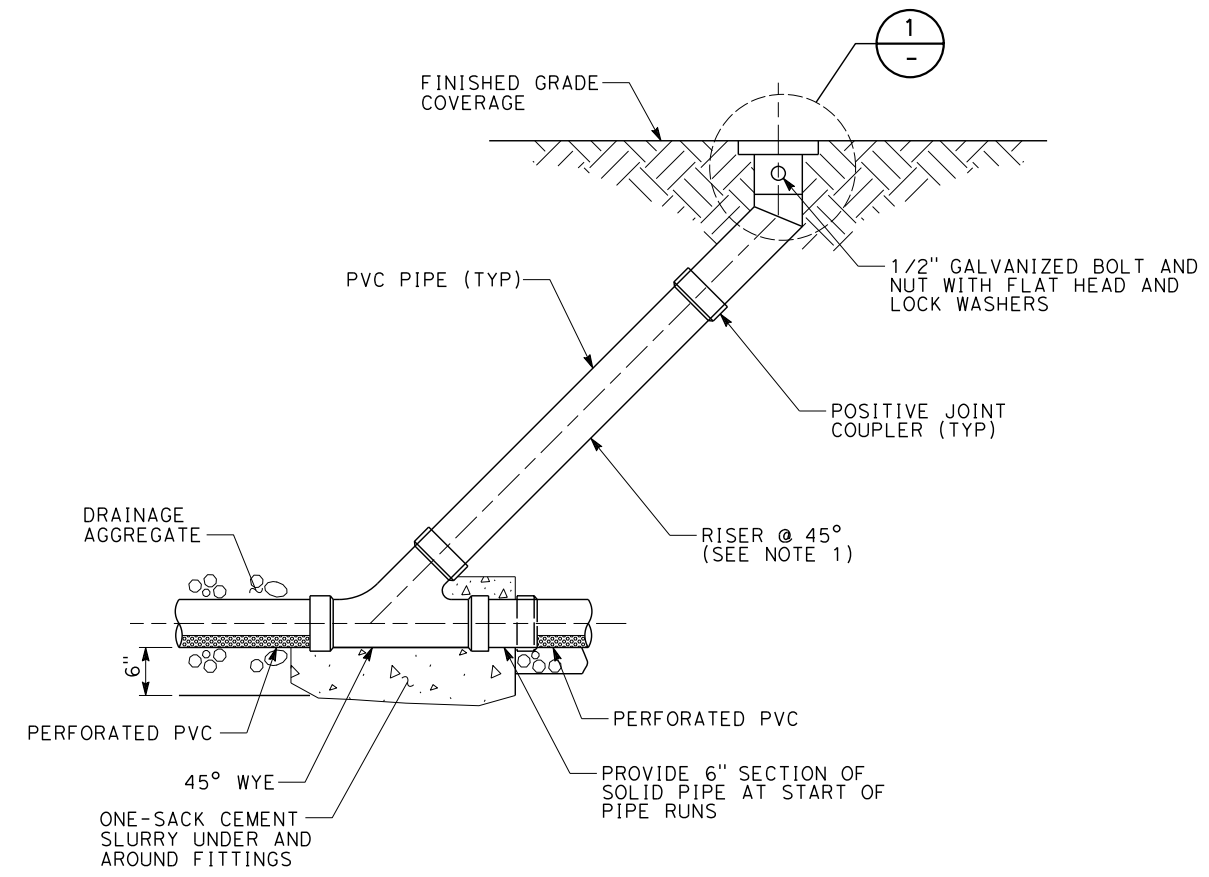
STANDARD DRAWINGS
CONTRACT PACKAGE 2-3
SHEET INDEX

CONTRACT NO.
DRAWING NO. INDEX-2 CP2-3
SCALE NO SCALE
SHEET NO.

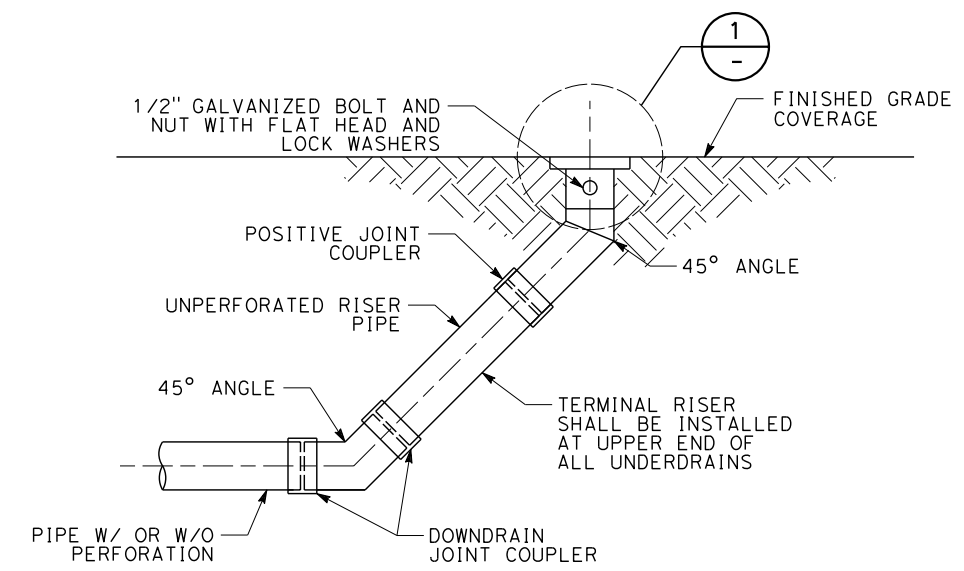
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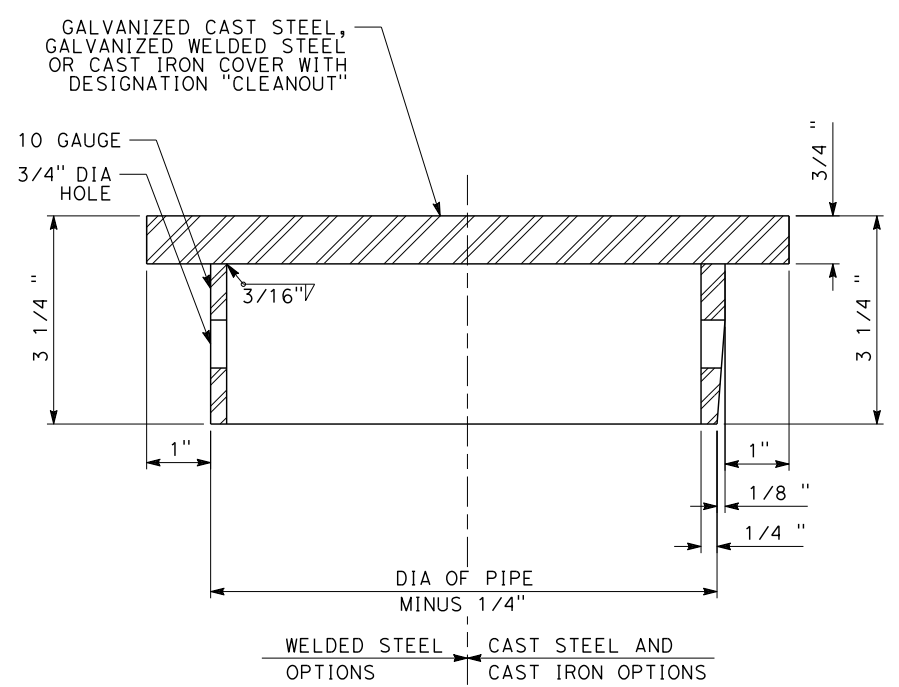
NOTES:
 1. RISER MAY BE ANGLED AT 90 DEGREES DUE TO SPACE CONSIDERATIONS.



INTERMEDIATE RISER/CLEANOUT
 SCALE: 1"=1'-0"



TERMINAL RISER DETAIL
 SCALE: 1"=1'-0"



DETAIL
 SCALE: 8"=1'-0"

REV	DATE	BY	CHK	APP	DESCRIPTION

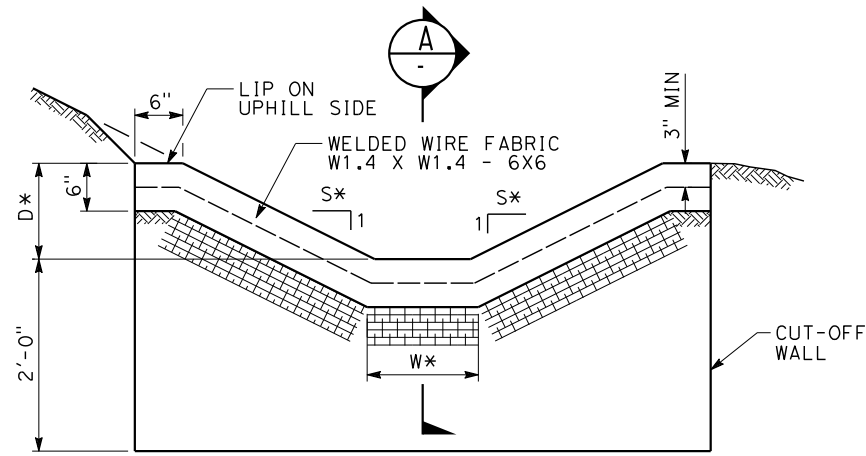
DESIGNED BY
K. SISTLA
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD
 TRACK DRAIN/UNDERDRAIN
 CLEANOUT AND RISER DETAILS

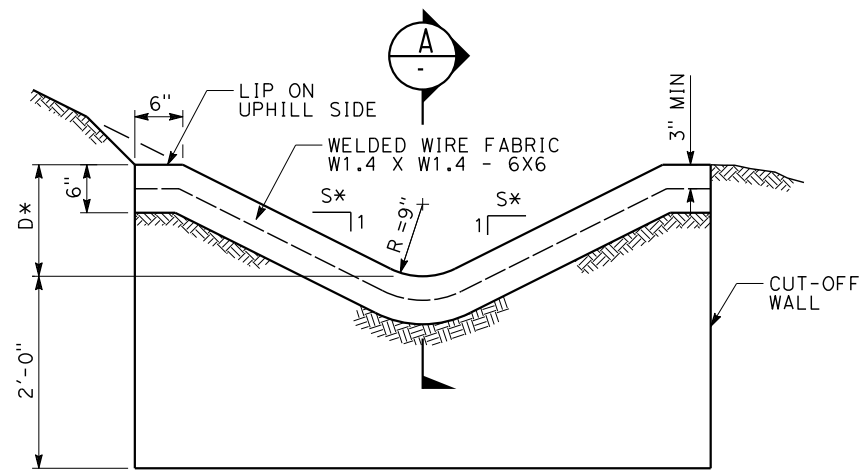
CONTRACT NO.
 DRAWING NO.
SD-CD-900
 SCALE
AS SHOWN
 SHEET NO.

XXIX/2015 - RFP NO. : HSR 14-32



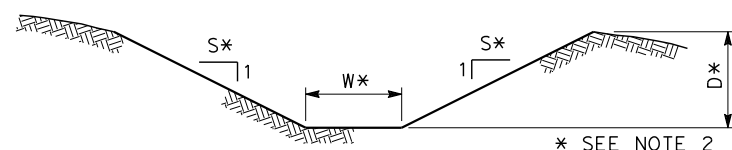
TYPE A (TRAPEZOID) DITCH

* SEE NOTE 2



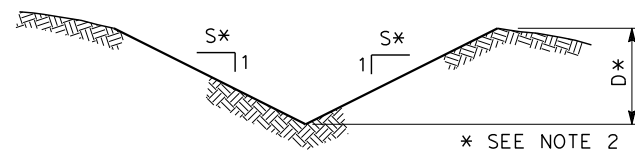
TYPE B ("V") DITCH

* SEE NOTE 2



TYPE C (TRAPEZOID) DITCH

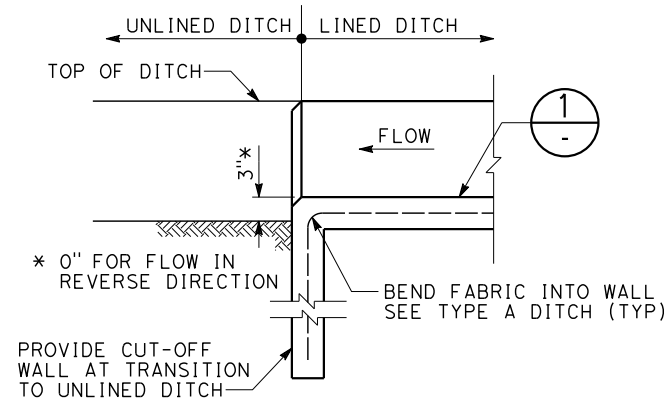
* SEE NOTE 2



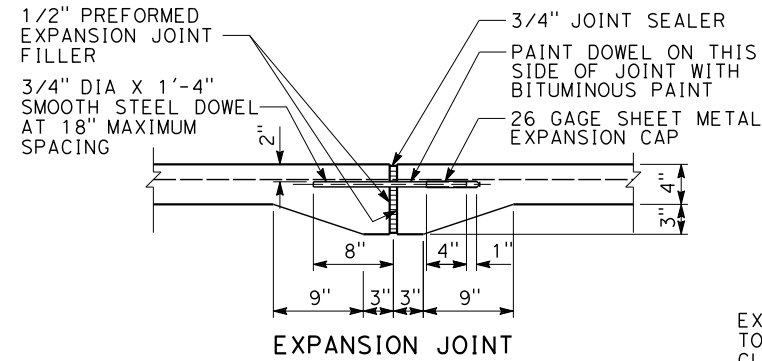
TYPE D ("V") DITCH

* SEE NOTE 2

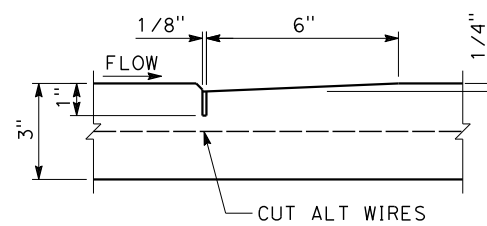
DITCH DETAILS
NO SCALE



SECTION



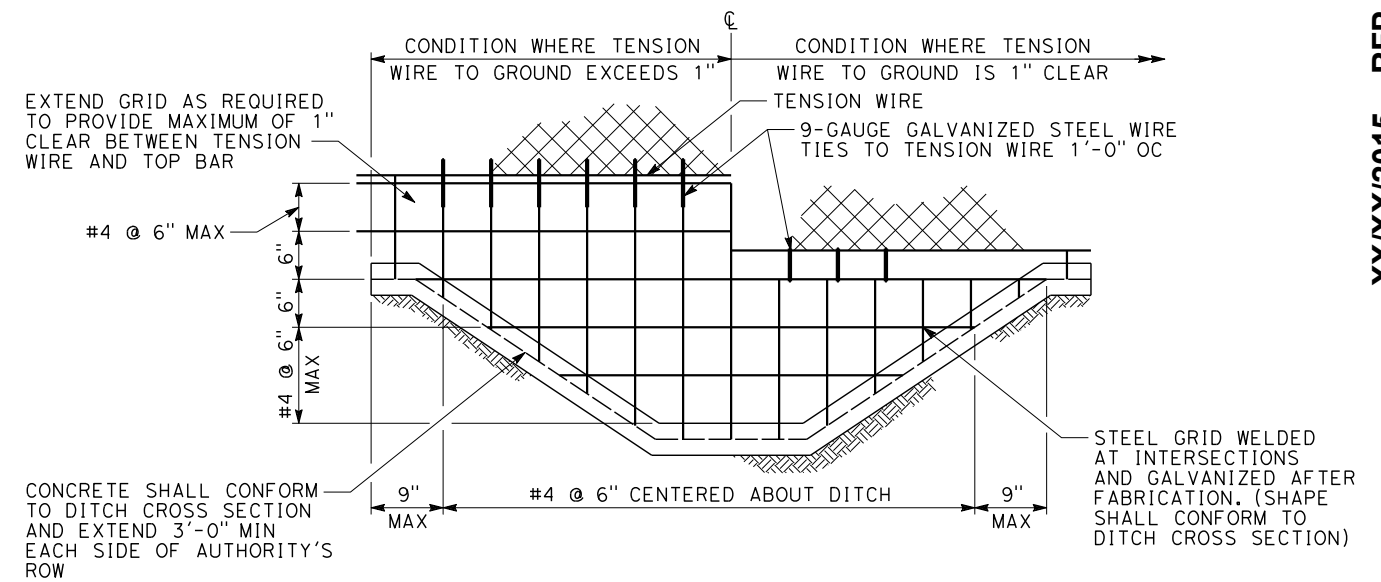
EXPANSION JOINT



CONTRACTION JOINT

JOINT DETAILS

NO SCALE
(SEE NOTE 3)



OPEN CHANNEL CLOSURE DETAIL

NO SCALE
(SEE NOTE 4)

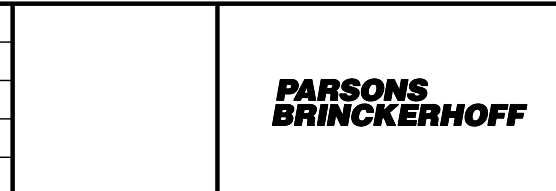
NOTES:

1. DITCH LINING SHALL BE CONCRETE OR SHOTCRETE.
2. DITCH SHALL CONFORM TO THE FOLLOWING MINIMUM DIMENSIONS:
D = DEPTH OF DITCH, 1 FOOT MINIMUM
S = SLOPE OF DITCH, SIDES, 2:1 MAX FOR CONCRETE LINED CHANNEL, 3:1 MAX FOR GRASS LINED CHANNEL
W = WIDTH OF BOTTOM OF DITCH, 4 FEET MINIMUM
3. TYPE A AND B DITCHES SHALL HAVE A CONTRACTION JOINT EVERY 10 FEET, AND AN EXPANSION JOINT EVERY 100 FEET.
4. OPEN CHANNEL CLOSURE SHALL BE REQUIRED AT EACH LOCATION WHERE AN OPEN CHANNEL PASSES UNDER AUTHORITY'S RIGHT-OF-WAY.

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REV	DATE	BY	CHK	APP	DESCRIPTION

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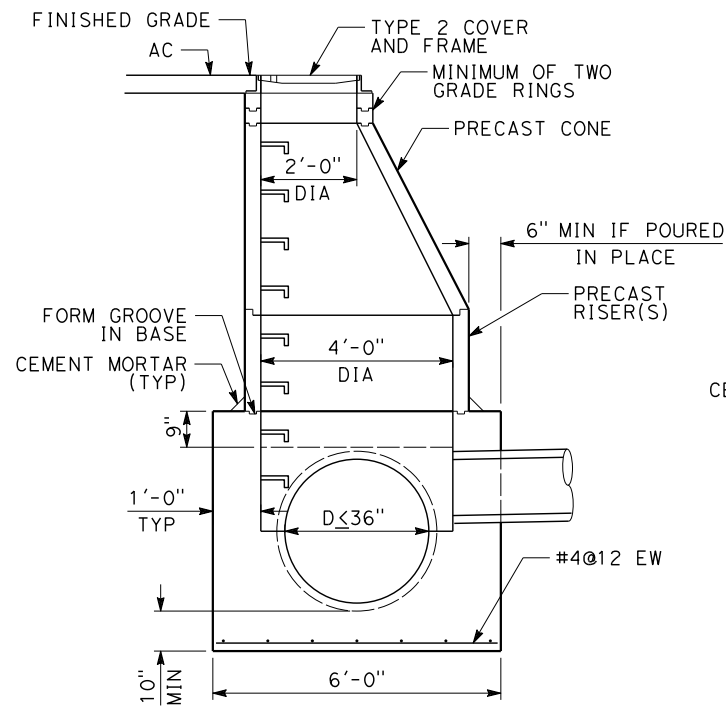
CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD

DITCH DETAILS

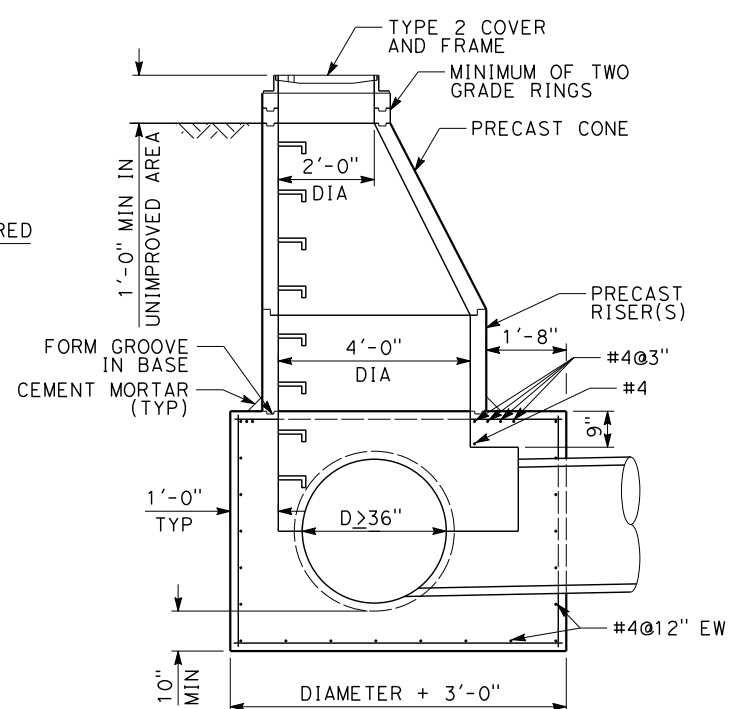
CONTRACT NO.
DRAWING NO.
SD-CD-901
SCALE
NO SCALE
SHEET NO.

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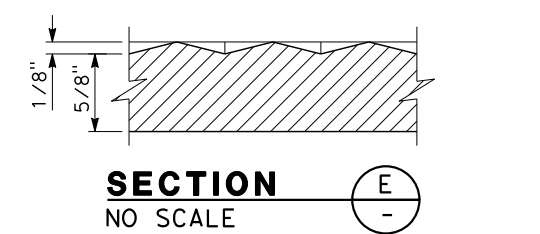
SECTION A
NO SCALE



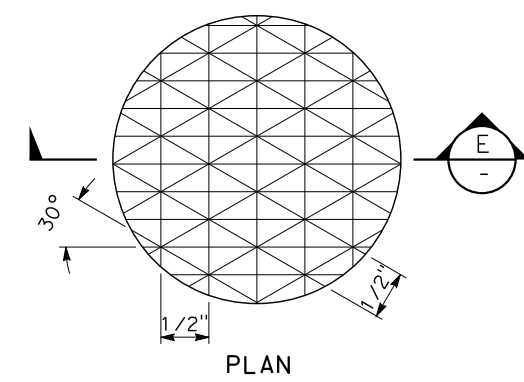
SECTION B
NO SCALE

NOTE:
FOR STEP DETAILS, SEE NOTES
MANHOLE FOR
PIPE DIAMETER 36" OR LESS

MANHOLE FOR
PIPE DIAMETER MORE THAN 36"

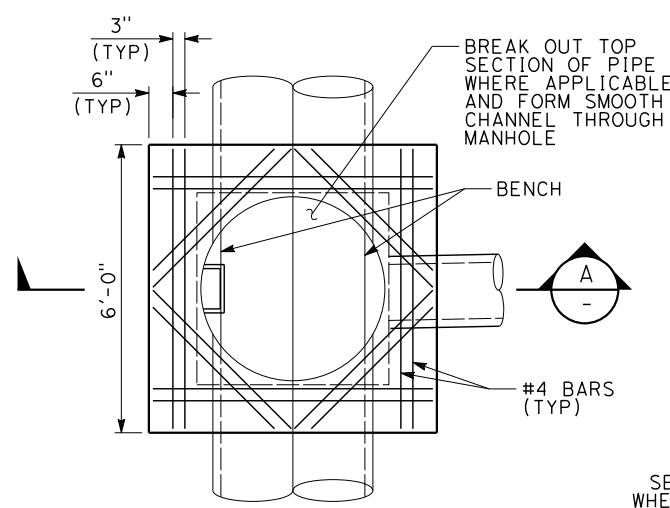


SECTION E
NO SCALE



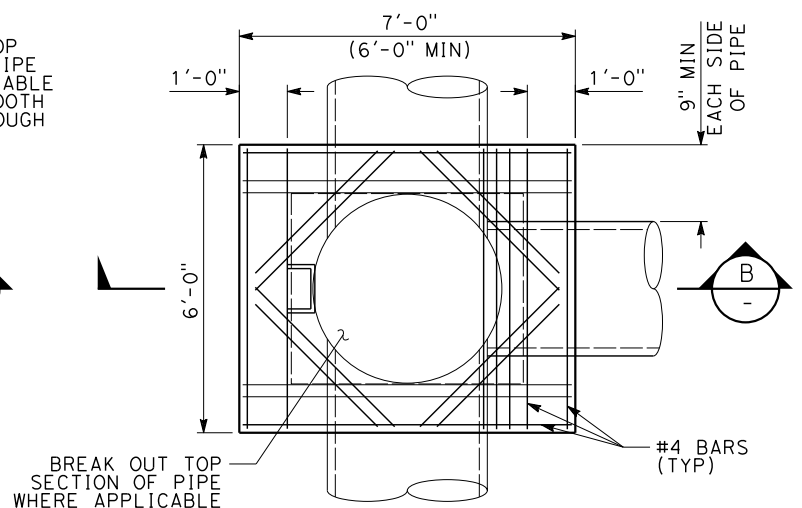
DETAIL 6
NO SCALE

- NOTES:**
1. GROUT ALL JOINTS.
 2. ALL PORTLAND CEMENT CONCRETE SHALL BE CLASS 4000.
 3. PLACE STEPS ON DOWNSTREAM SIDE OF MANHOLE IF POSSIBLE.
 4. REFER TO CALTRANS STANDARD PLAN FOR STEP DETAILS (D74C).



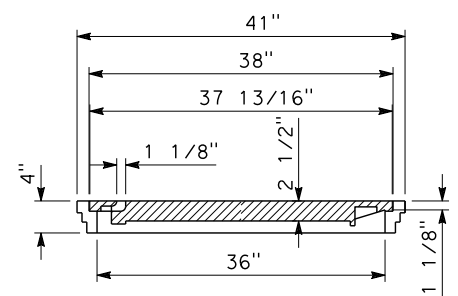
PLAN

DETAIL 1
NO SCALE

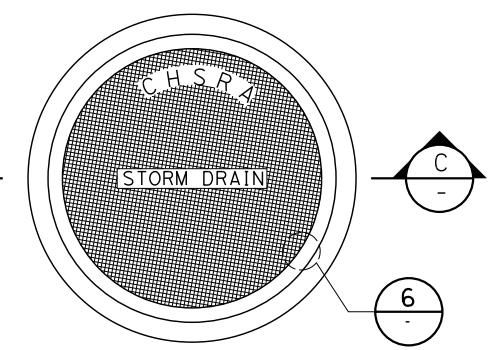


PLAN

DETAIL 2
NO SCALE



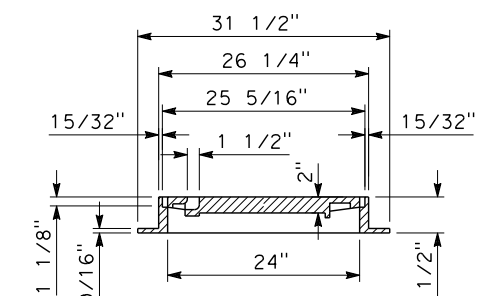
SECTION C
NO SCALE



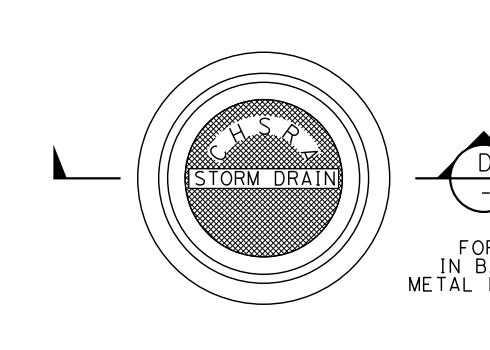
PLAN

TYPE 1 COVER AND FRAME
(WEIGHT=700#)

DETAIL 3
NO SCALE



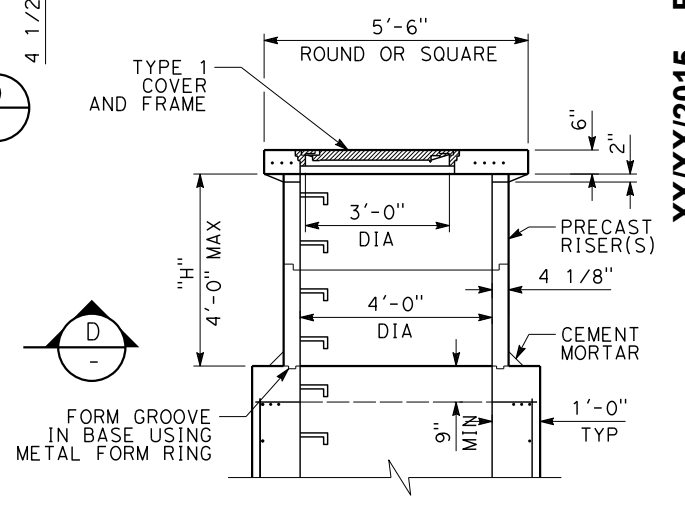
SECTION D
NO SCALE



PLAN

TYPE 2 COVER AND FRAME
(WEIGHT=320#)

DETAIL 4
NO SCALE



ALTERNATE CHIMNEY
AND GRADE SLAB

(REQUIRED WHERE "H" IS LESS THAN 4'-0")

DETAIL 5
NO SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION

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01/24/2014

PARSONS BRINCKERHOFF

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

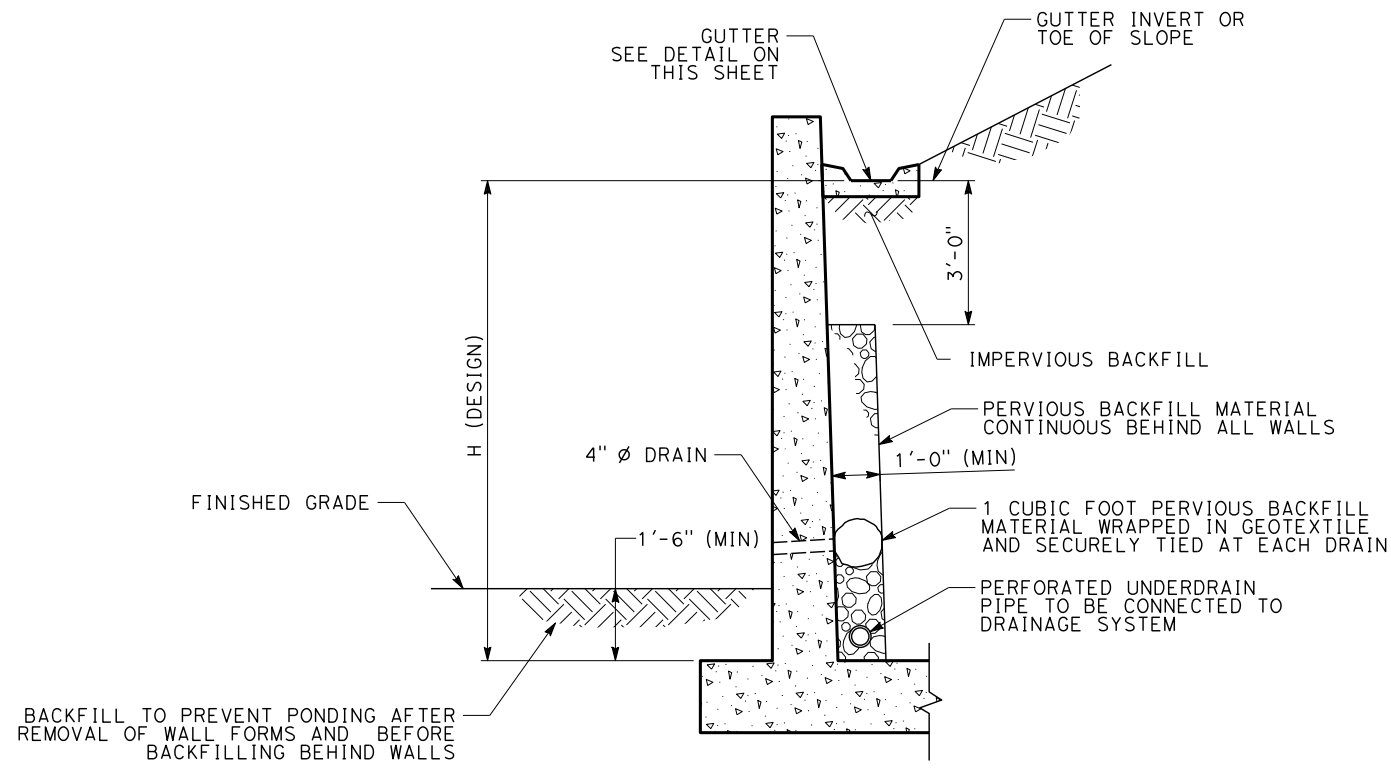
CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD
STORM DRAIN MANHOLES

CONTRACT NO.	
DRAWING NO.	SD-CD-902
SCALE	NO SCALE
SHEET NO.	

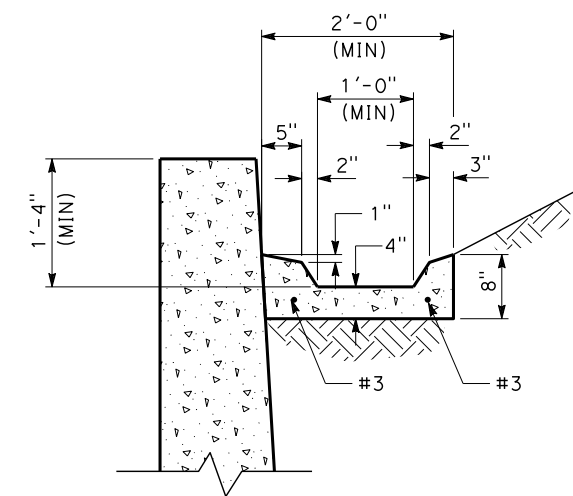
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NOTES:

1. RETAINING WALL STRUCTURE IS SCHEMATIC AND DOES NOT REPRESENT DESIGN.



RETAINING WALL DRAINAGE



TYPICAL GUTTER DETAIL

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Cheung

REV	DATE	BY	CHK	APP	DESCRIPTION

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DATE
01/24/2014

**PARSONS
BRINCKERHOFF**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD**

RETAINING WALL DRAINAGE DETAILS

CONTRACT NO.
DRAWING NO.
SD-CD-903
SCALE
NO SCALE
SHEET NO.

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