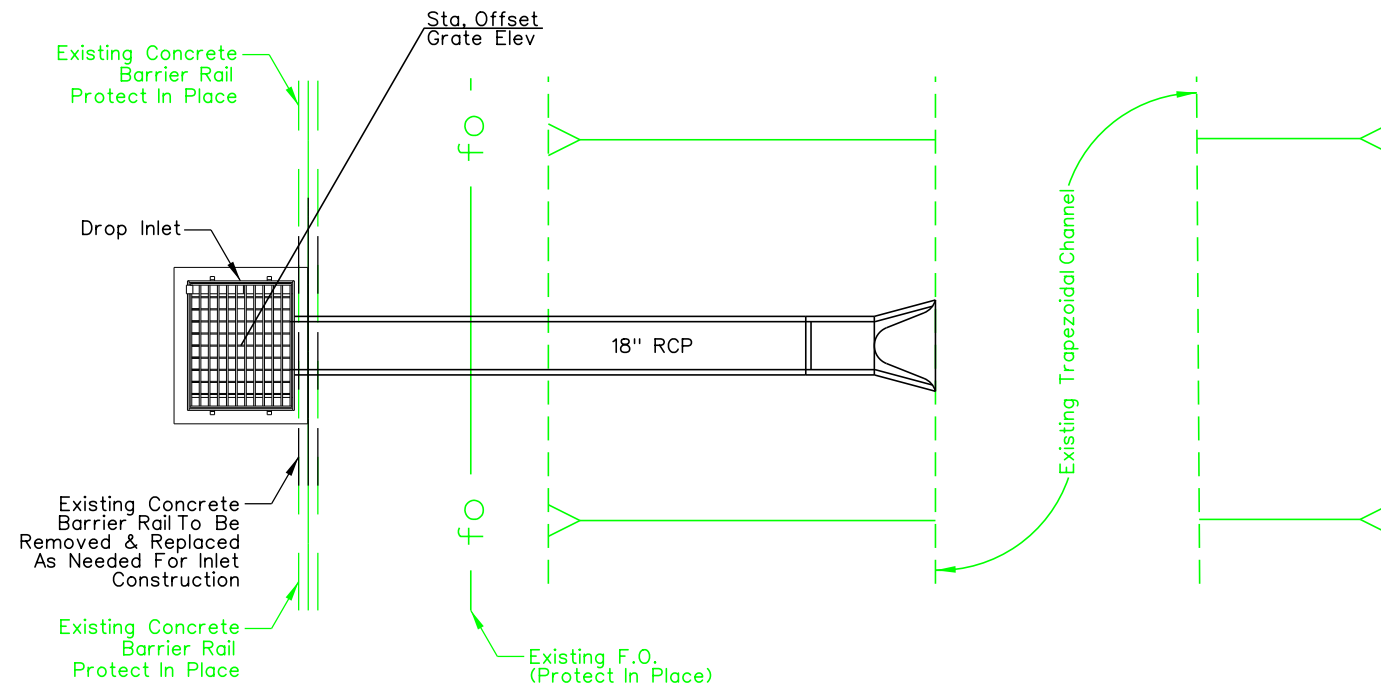


# PRELIMINARY

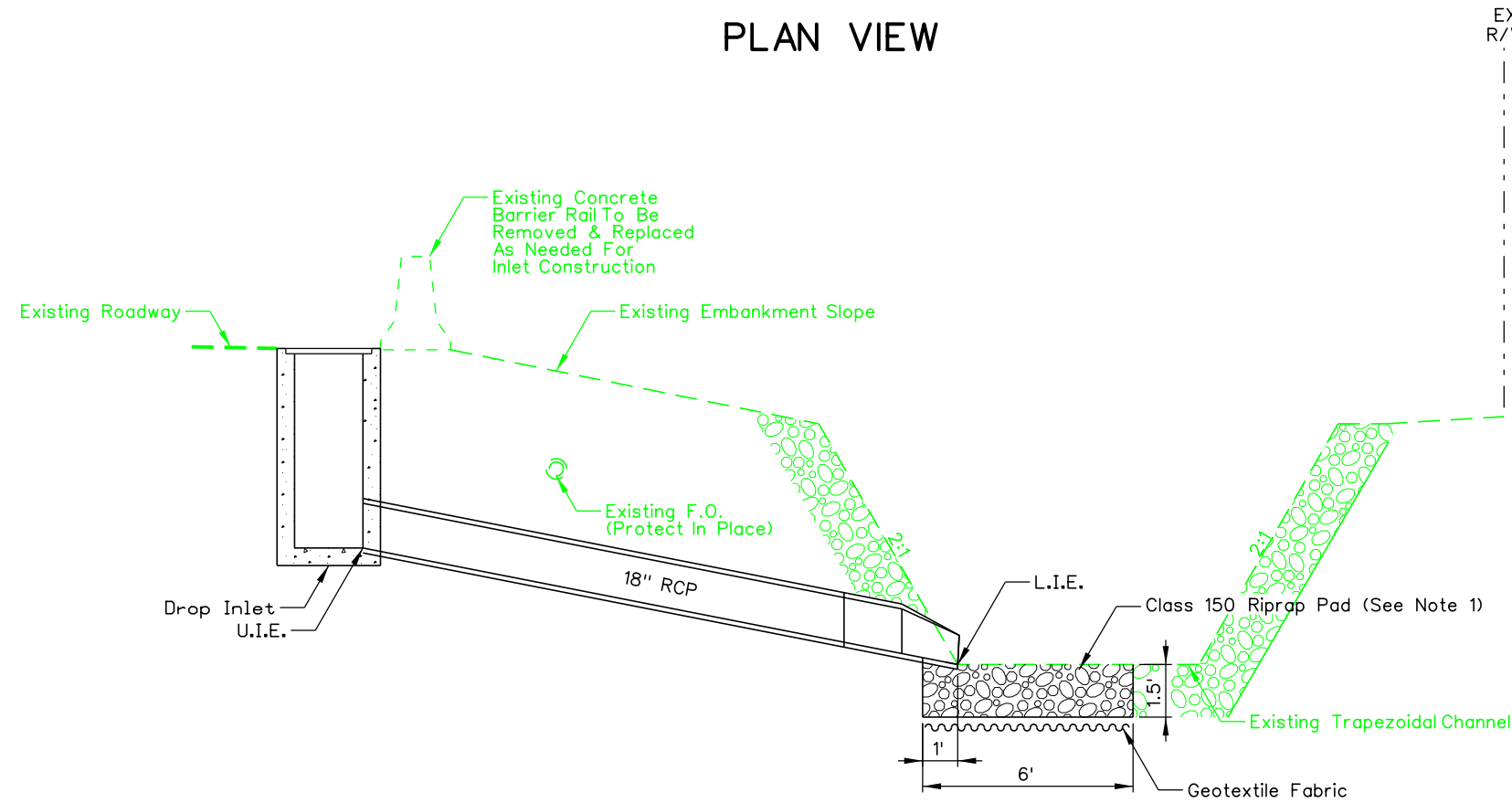
SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD1

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE



PLAN VIEW



DROP INLET TO EXISTING TRAPEZOIDAL CHANNEL  
TYPICAL CROSS SECTION

EX  
R/W

**NOTE:**

1. Install Class 300 Riprap Pad For Inlet At "MS" 712+99, 61.3' LT In lieu Of Class 150 Riprap Pad.

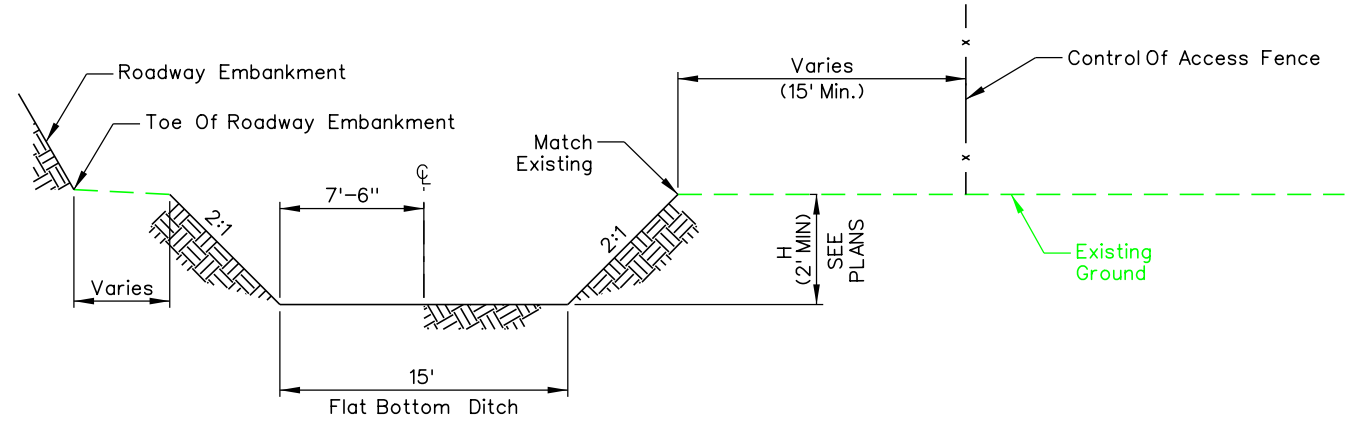
STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

## I-15 DRAINAGE DETAILS

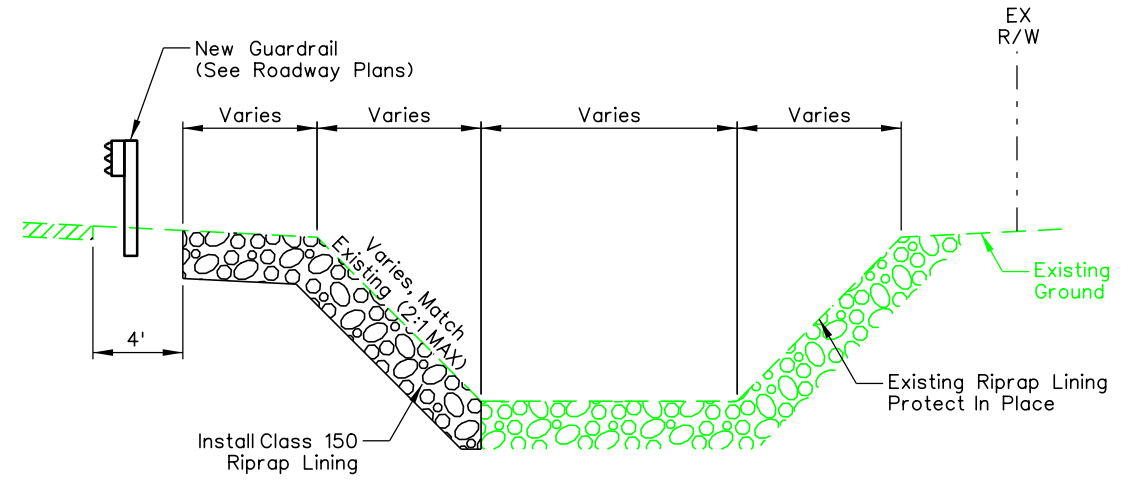
# PRELIMINARY

SUBJECT TO REVISION  
17-DEC-2013

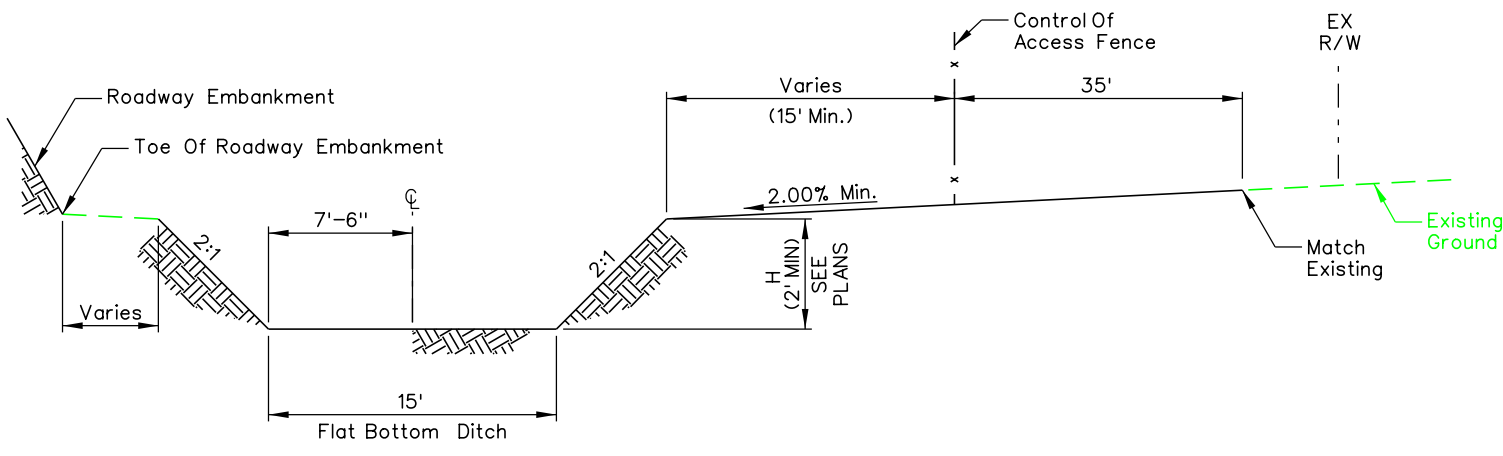
STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD2



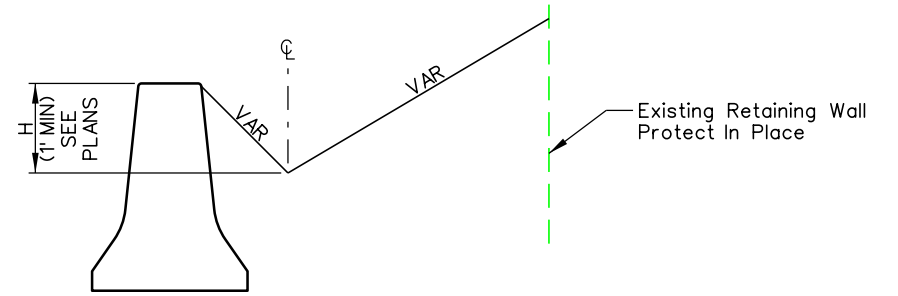
### DITCH SECTION A



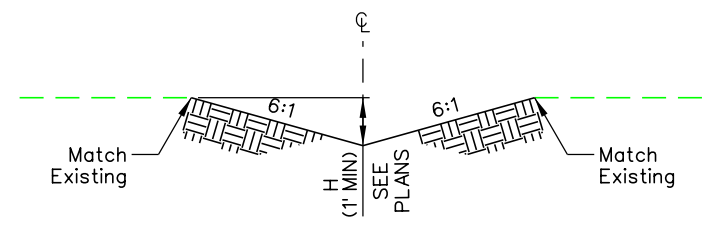
### DITCH SECTION G



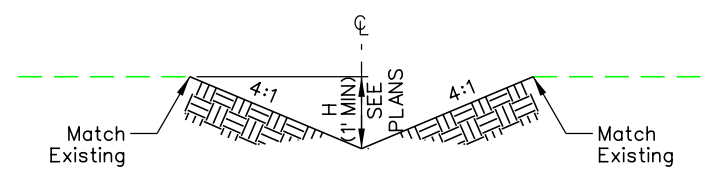
### DITCH SECTION B



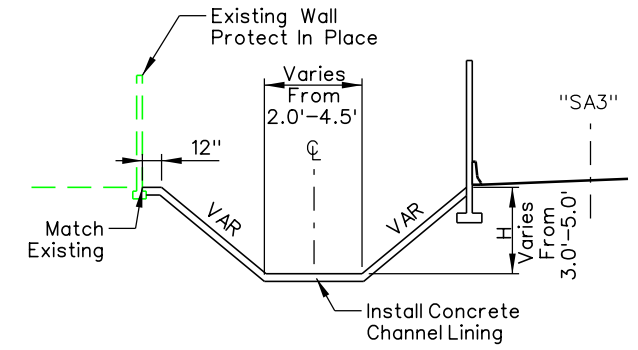
### DITCH SECTION H



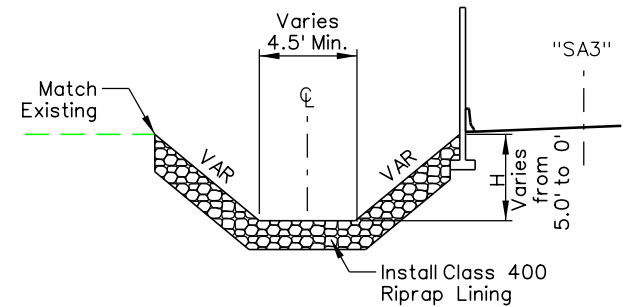
### DITCH SECTION C



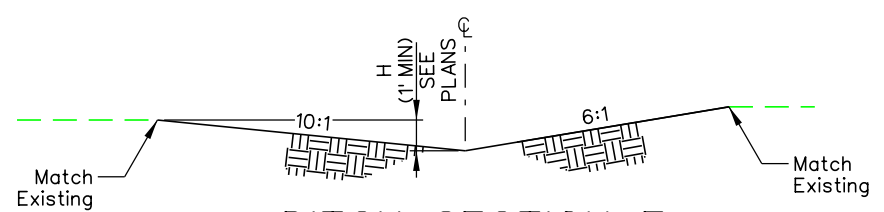
### DITCH SECTION D



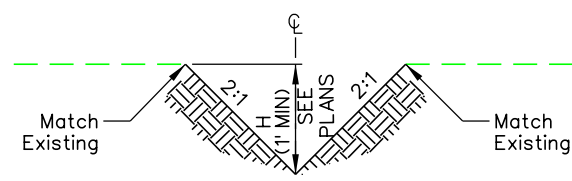
### DITCH SECTION I



### DITCH SECTION J



### DITCH SECTION E



### DITCH SECTION F

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN  
**I-15  
DRAINAGE DETAILS**

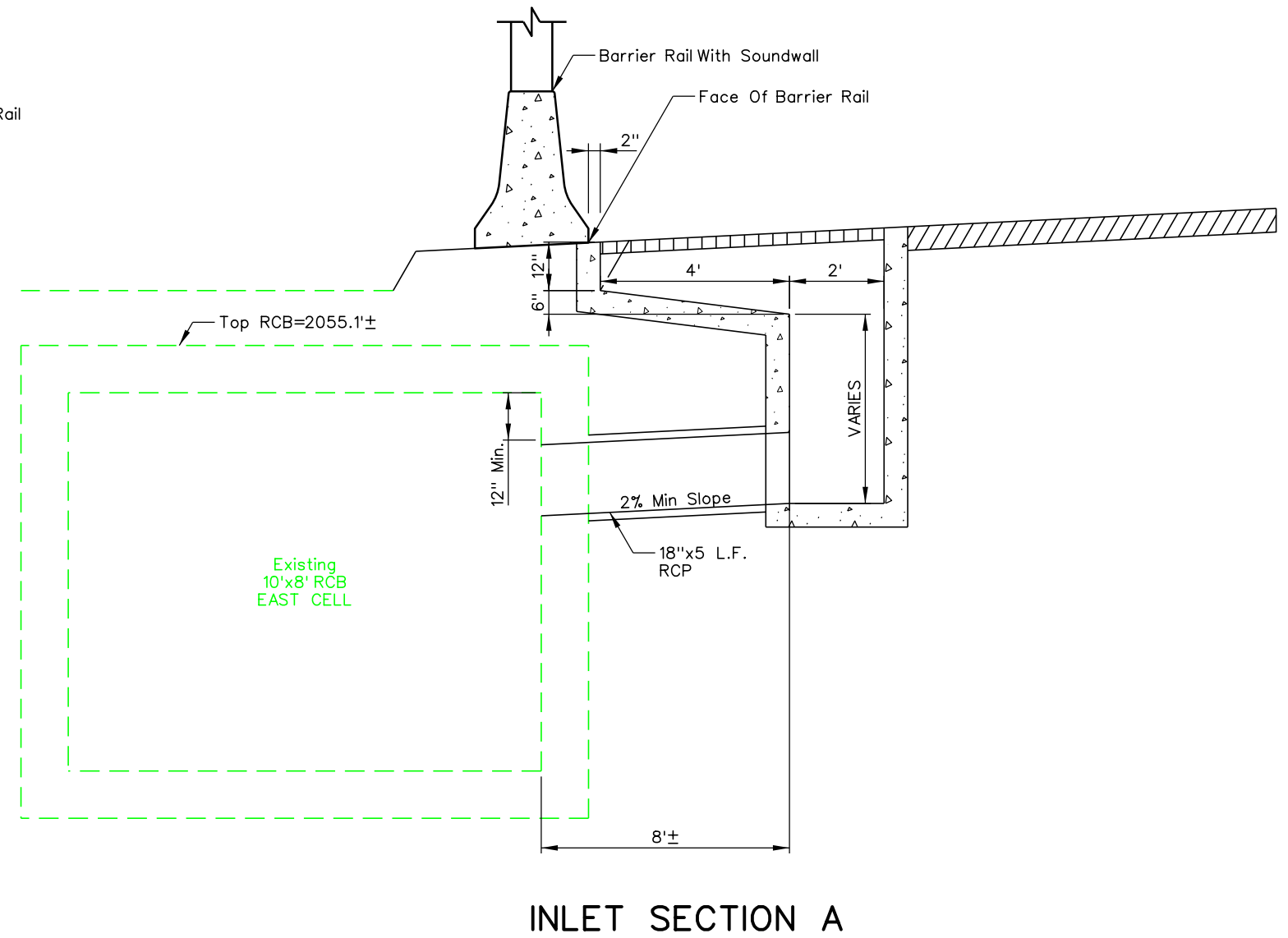
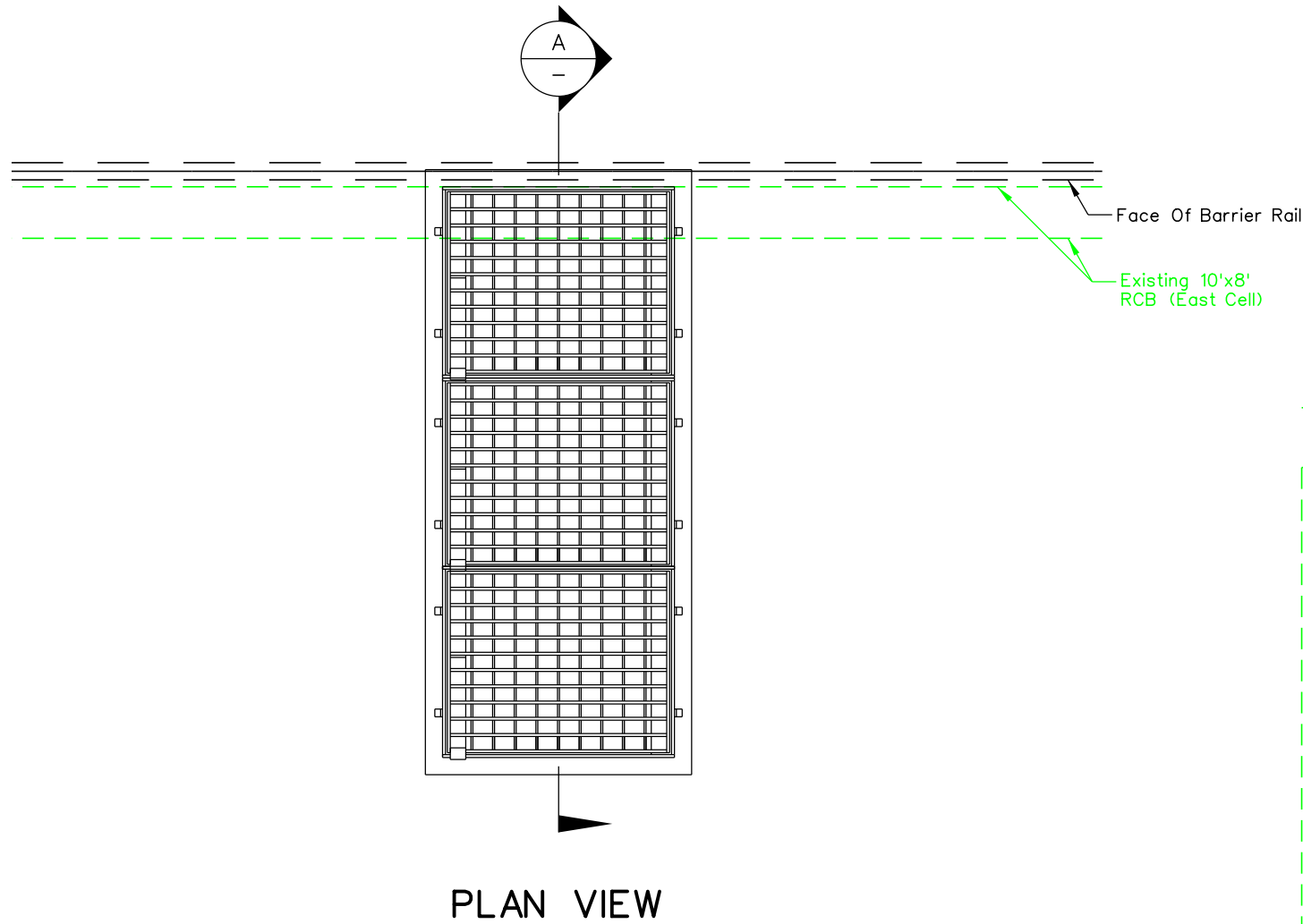
P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE

# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD3

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE



NOTE:  
Refer To NDOT STD DWG R-4.2.1  
For Inlet Details Not Shown.

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

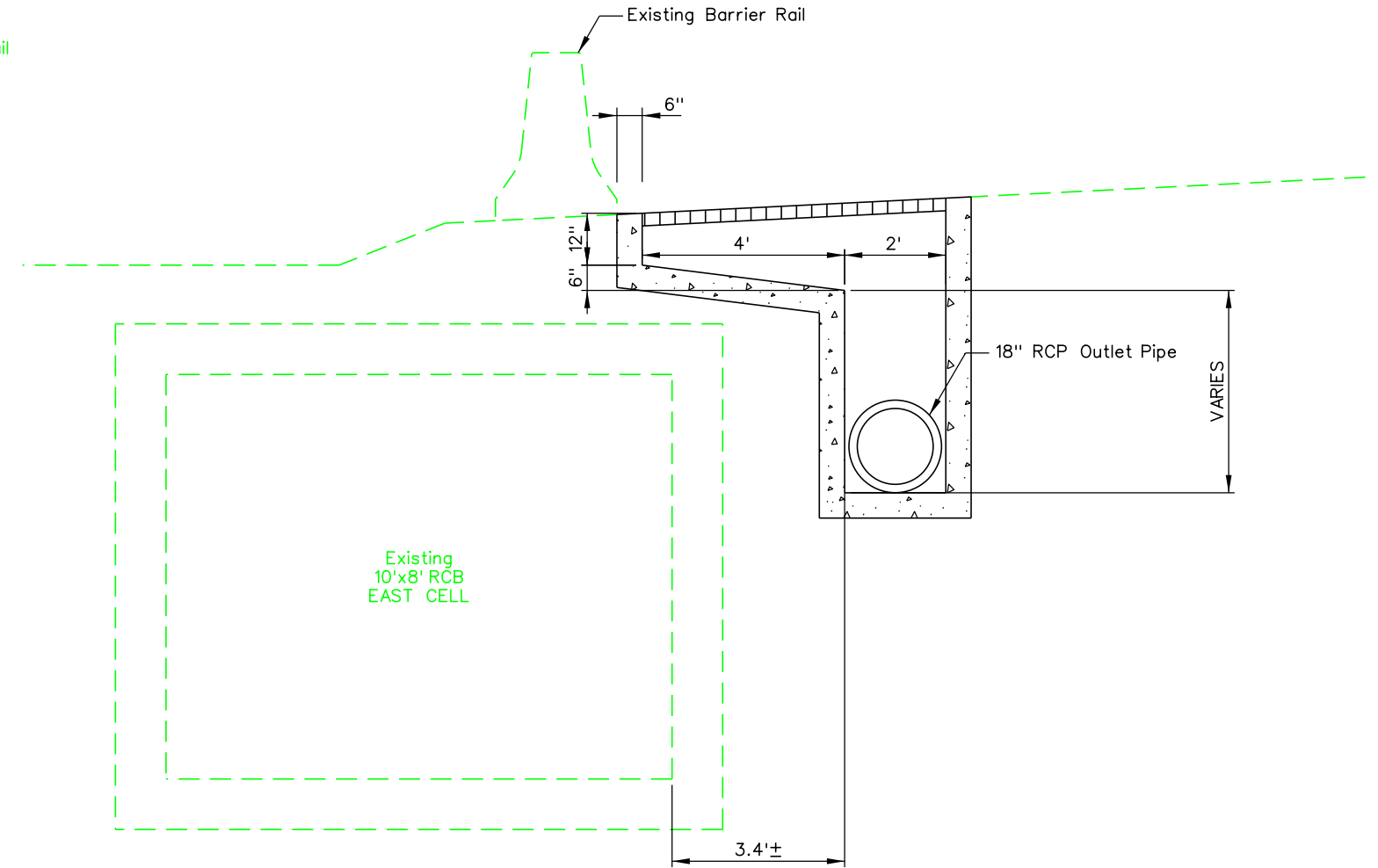
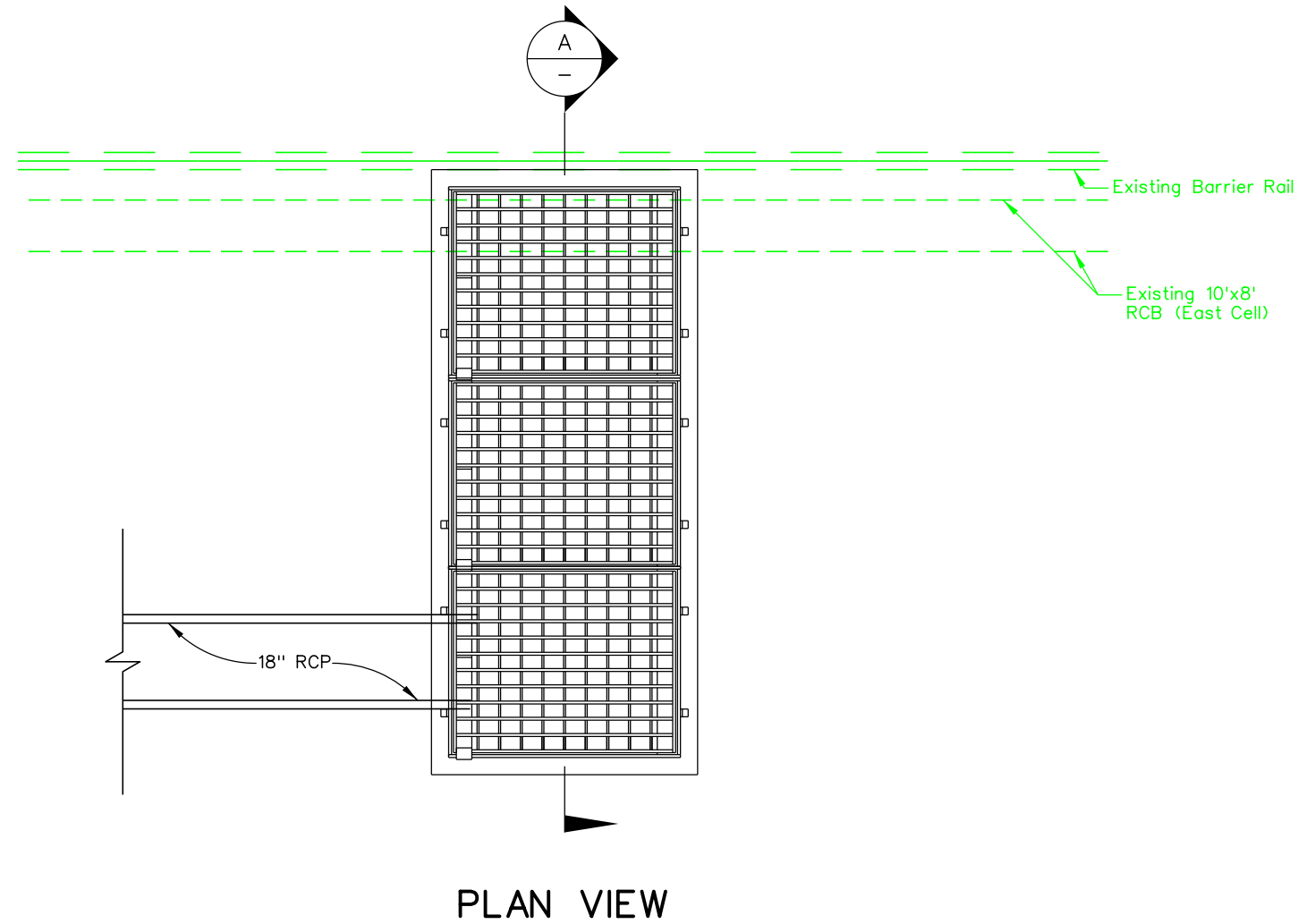
## I-15 DRAINAGE DETAILS

# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD4

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE



NOTE:

Refer To NDOT STD DWG R-4.2.1  
For Inlet Details Not Shown.

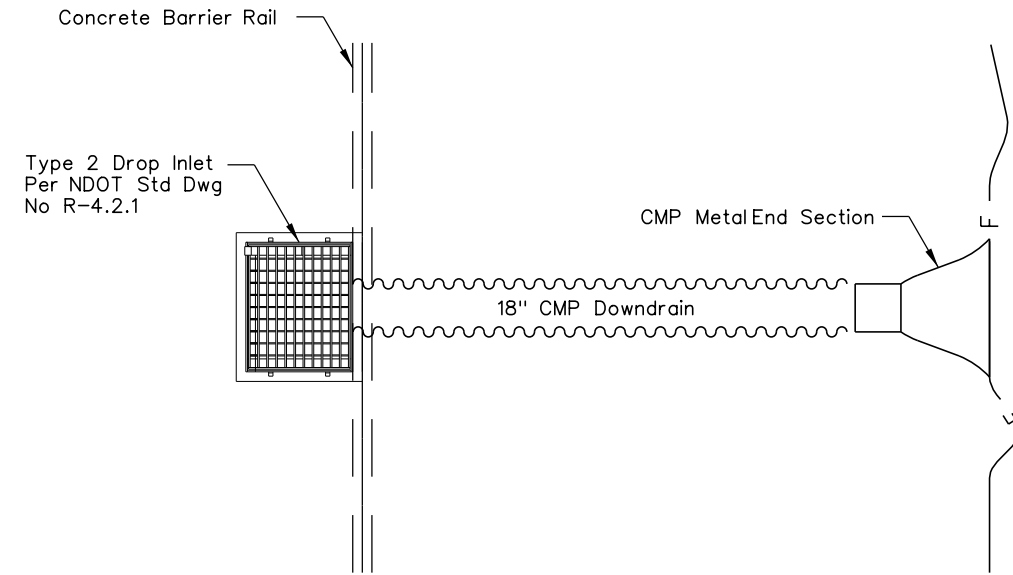
STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

## I-15 DRAINAGE DETAILS

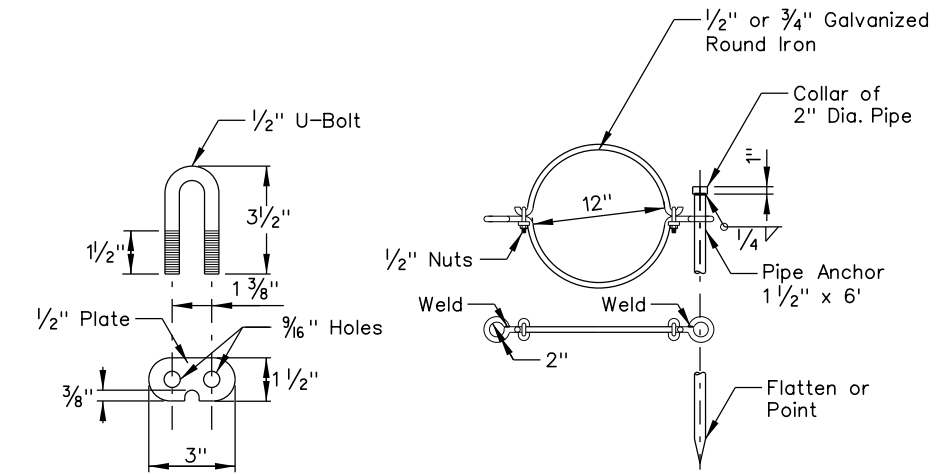
# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD5



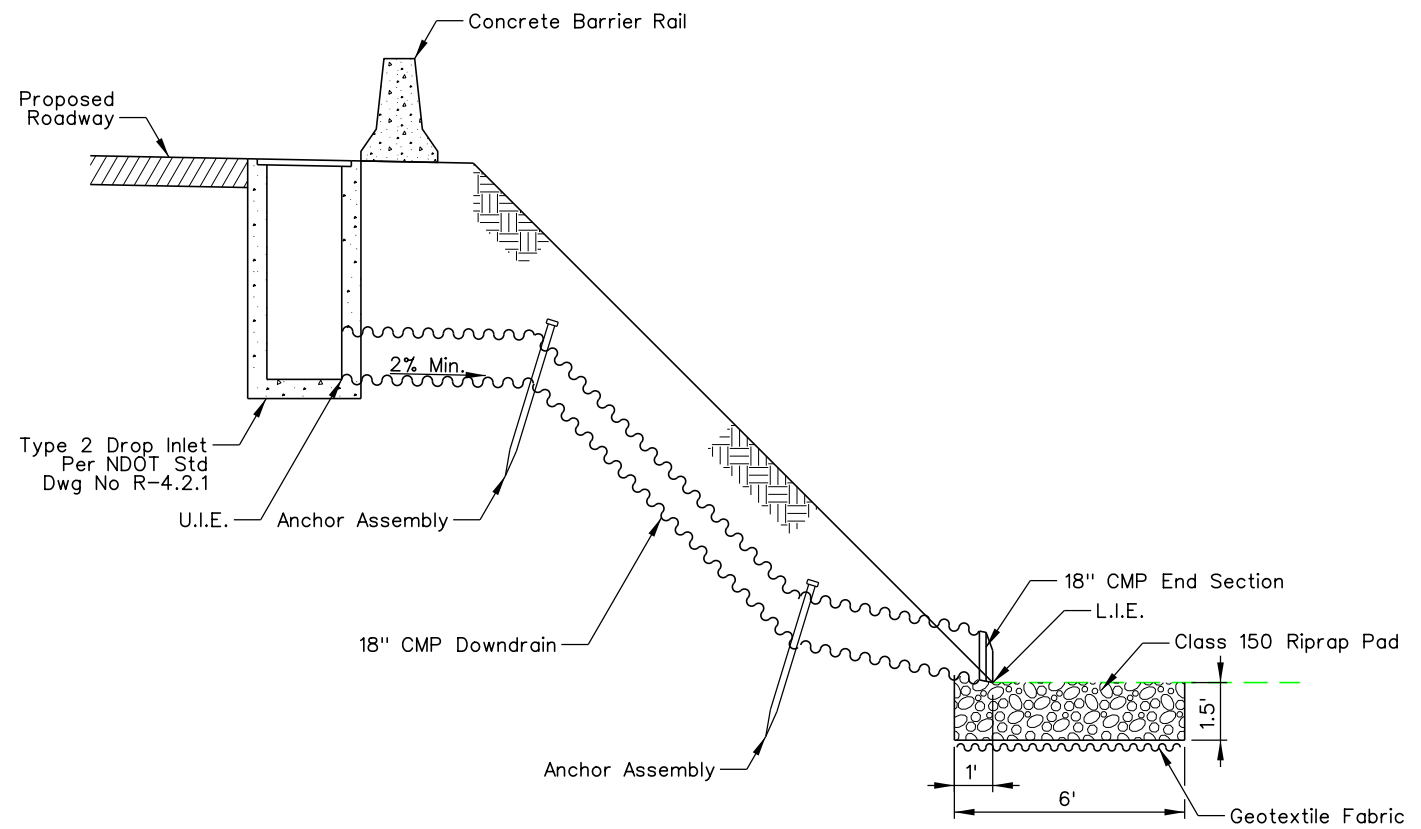
PLAN VIEW



ANCHOR ASSEMBLY DETAIL

**NOTES:**

1. Refer To Drainage Plans For Type 2 Drop Inlet Dimensions.
2. Refer To NDOT Std Dwg R-4.2.1 For Type 2 Drop Inlet Details Not Shown And R-3.1.2 For Down Drain Details Not Shown.



TYPE 2 DROP INLET WITH DOWNDRAIN  
TYPICAL CROSS SECTION

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN  
**I-15**  
**DRAINAGE DETAILS**

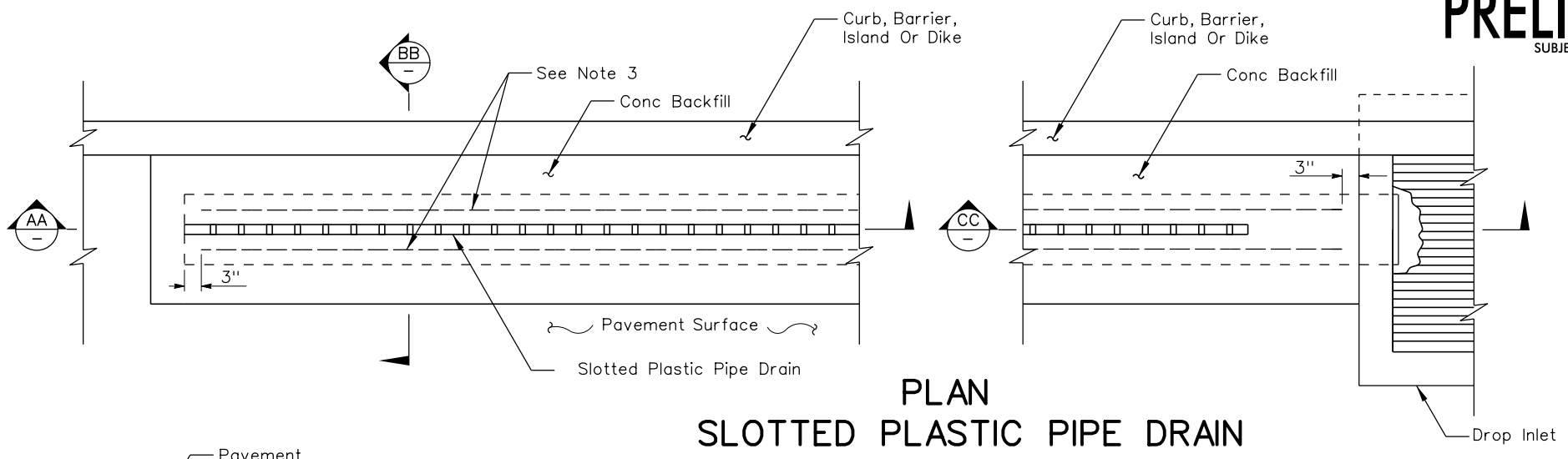
P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD6

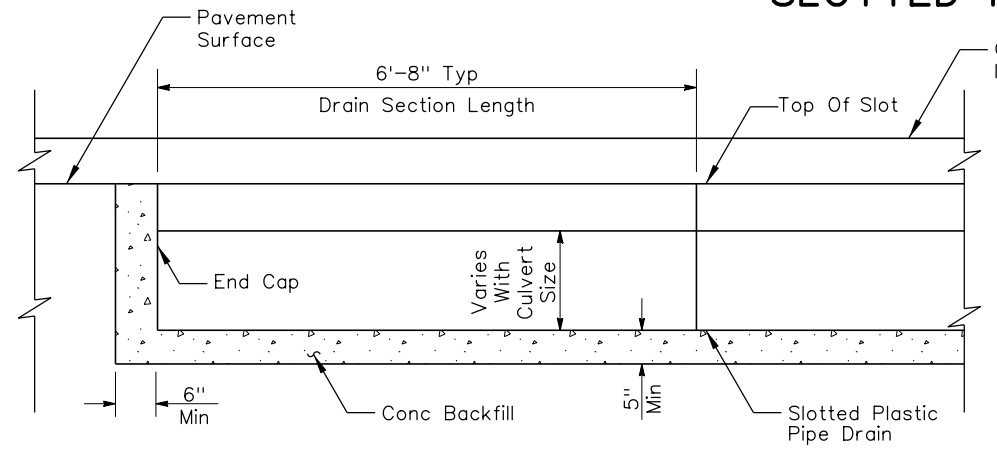
# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

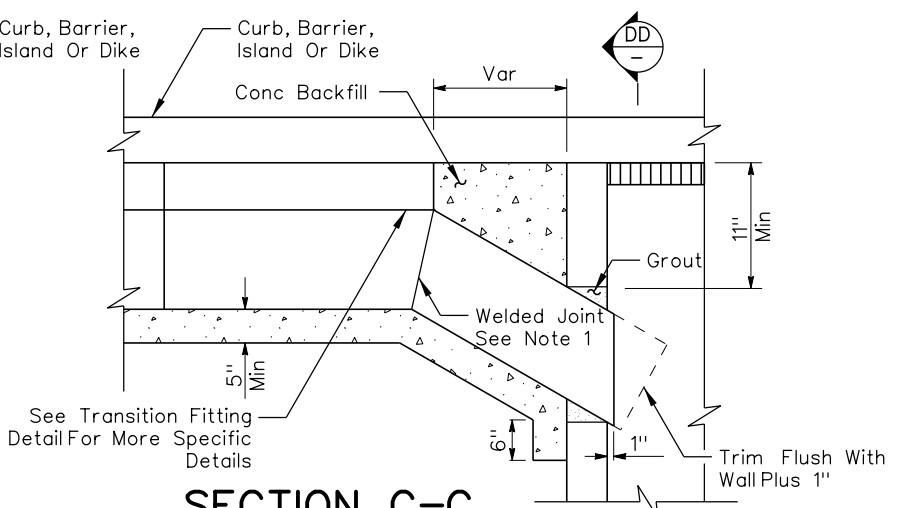
- Notes:**
1. Plastic Weld Shall Be Factory Fabricated.
  2. Exterior Wall Stiffener Ridges And Details Not Shown On Section Views. See Transition Fitting Detail For Typical Exterior Ridges And Throat Stiffeners.
  3. Lateral Support, #4 Bar, To Be Placed On Both Sides Of Slotted Plastic Pipe.
  4. Concrete Backfill Shall Be Class A or AA



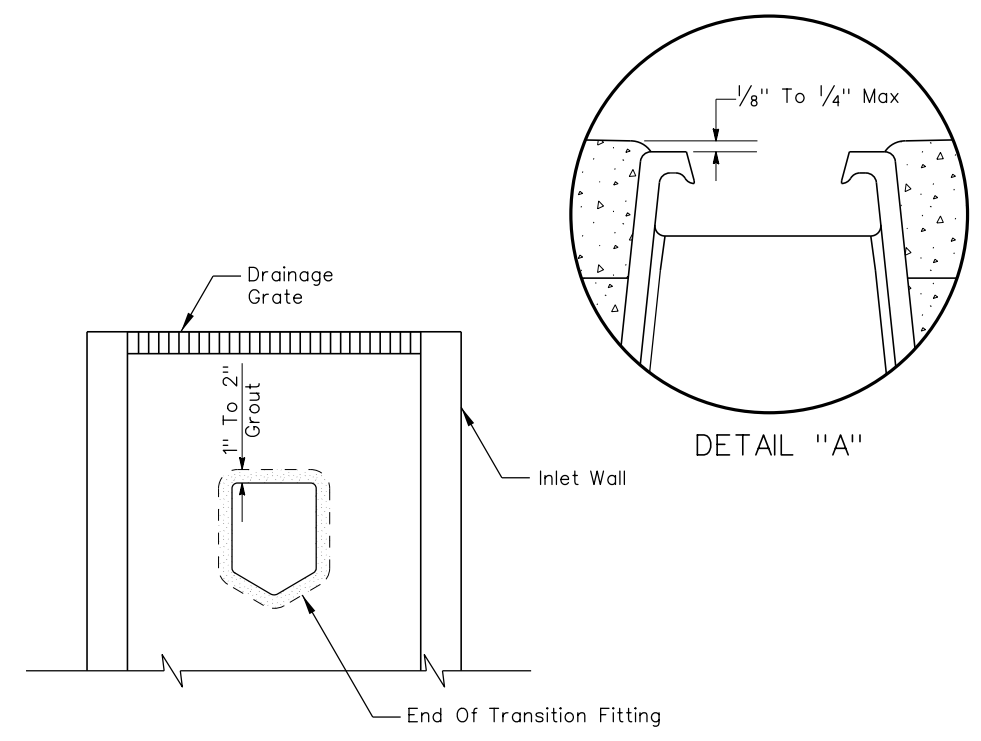
**PLAN**  
**SLOTTED PLASTIC PIPE DRAIN**



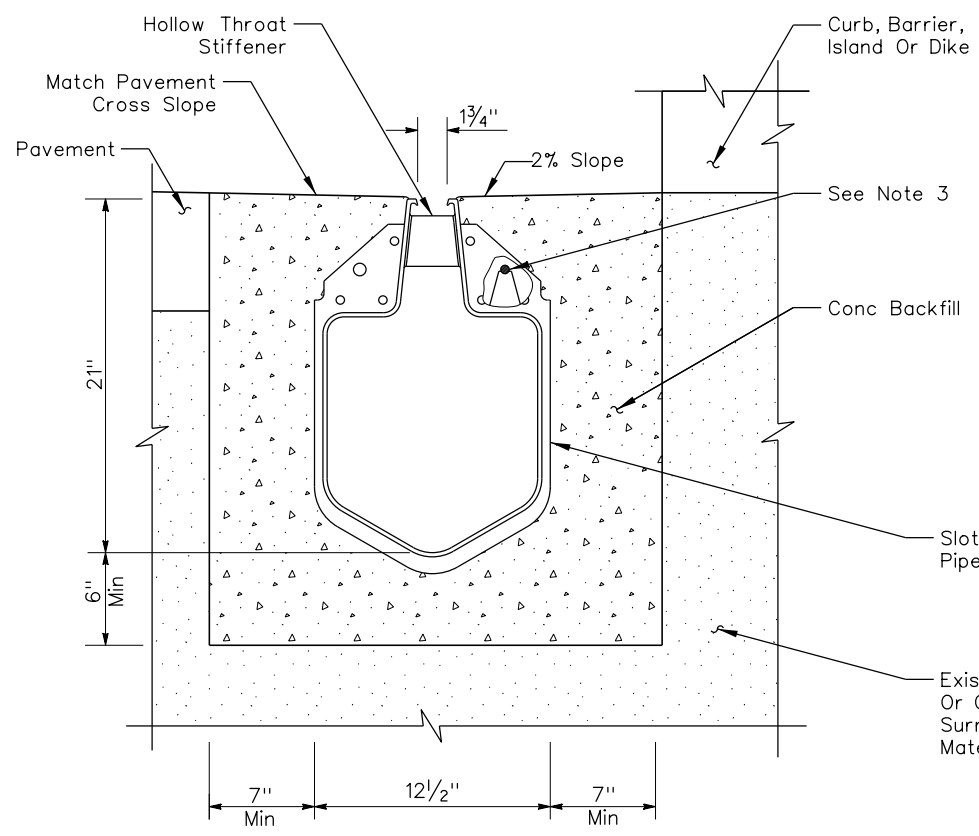
**SECTION A-A**



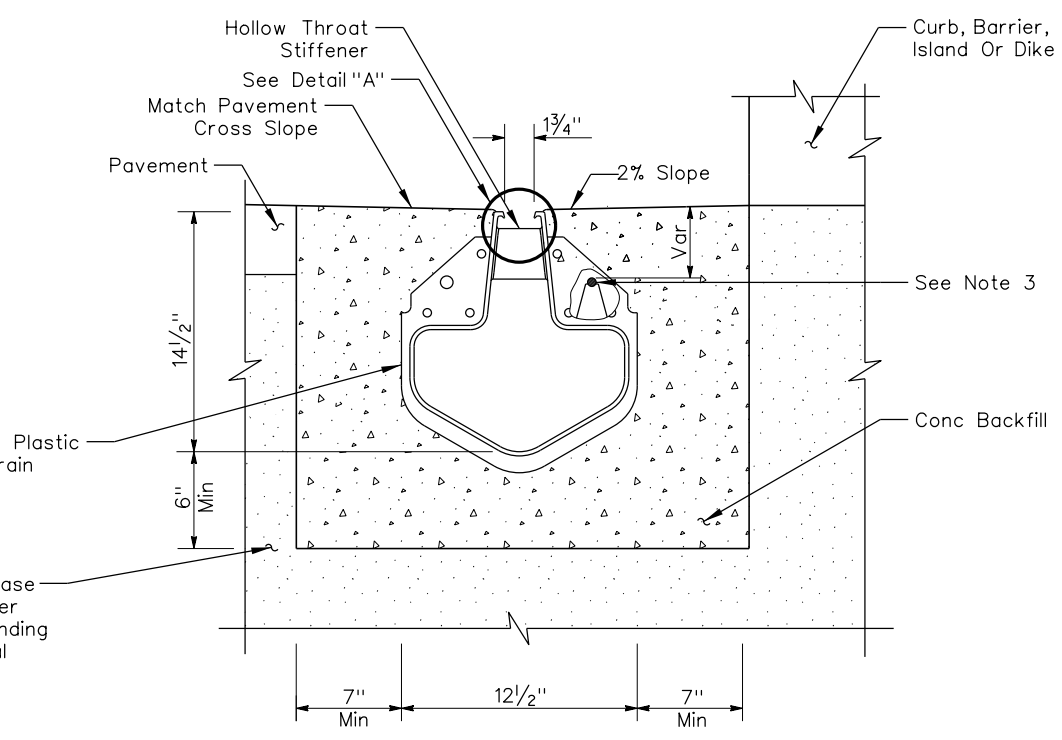
**SECTION C-C**



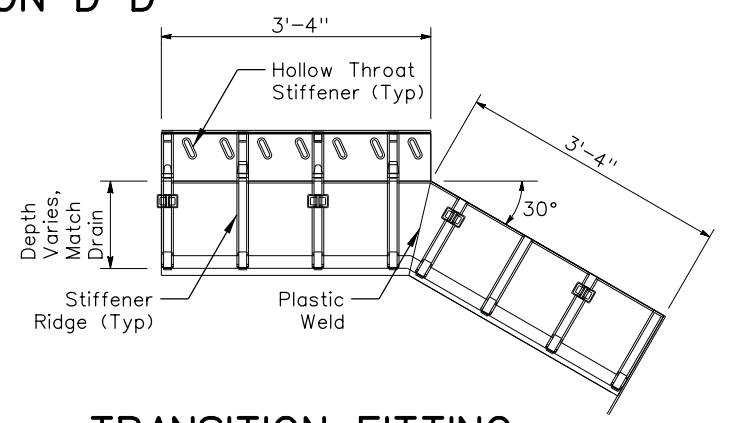
**SECTION D-D**



**SECTION B-B**  
**18\"/>**



**SECTION B-B**  
**12\"/>**



**TRANSITION FITTING**  
WITH STIFFENERS AND  
DETAILS SHOWN

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

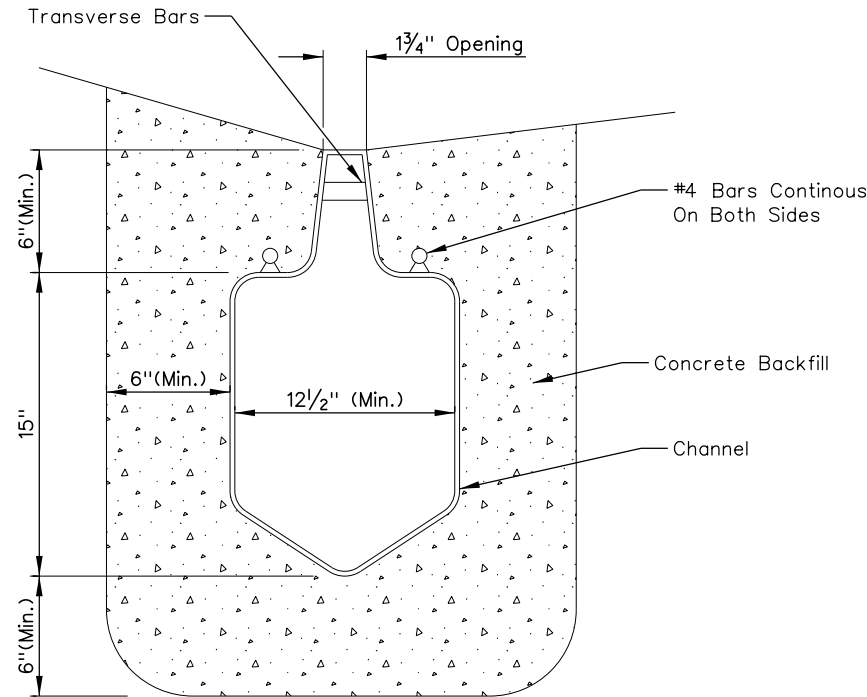
## I-15 DRAINAGE DETAILS

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE

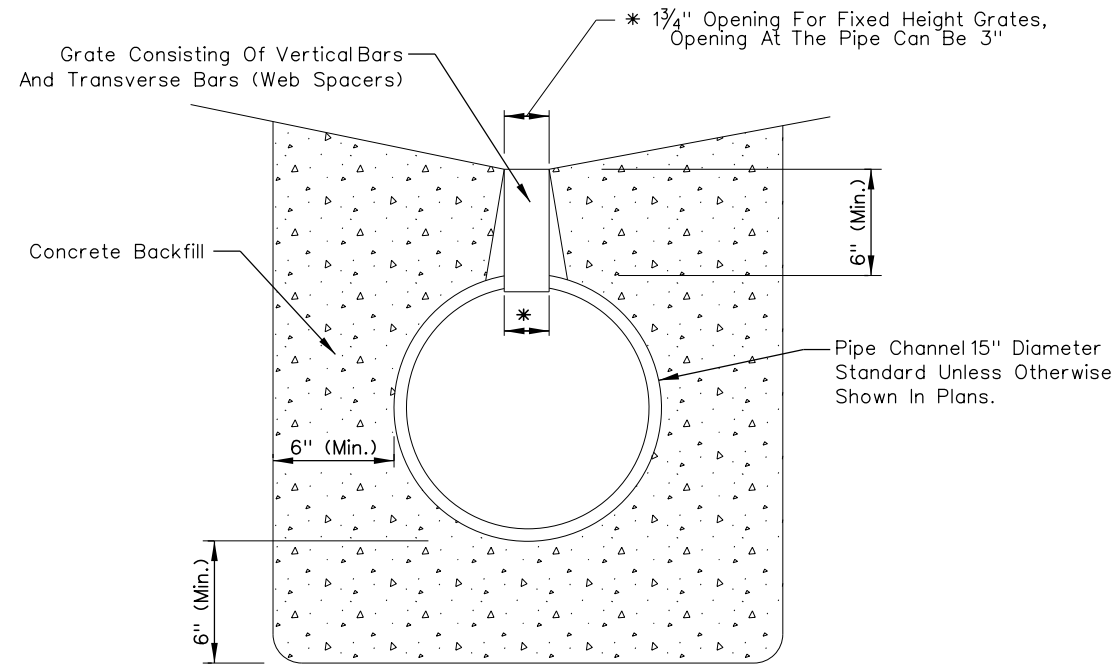
# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD7



PREFORMED POLYETHYLENE ALTERNATE



ROUND ALTERNATE

**GENERAL NOTES:**

1. Unless Shown In The Plans, Outlet Pipes And Preformed Channel Inverts Shall Be Sloped 0.6% Or Steeper Toward The Outlet Regardless Of The Surface Slope.
2. Slotted Drain May Be Stubbed Directly Into Drainage Structures, Or Outlet Pipes May Be Used To Connect Slotted Drain To Drainage Structures.
3. A Cleanout Port Compatible With The Manufactured System Shall Be Provided For Slotted Drains At The Upstream End And At Intervals Not To Exceed 50 Feet. The Cleanout Port Shall Provide An Opening 6" To 10" Wide (Transverse To The Slotted Drain Length) And 18" To 24" Long. Where Cleanouts Are Placed Adjacent To Raised Curb Or Separator, The Curb Or Separator Shall Be Formed Around The Cleanout. The Cleanout Shall Have A Removable Load Resistant Cover Or Grate.
4. Trench Excavation Must Allow For A Minimum Of 6" Of Concrete To Be Placed Under And Alongside The Slotted Drain Channel System. Concrete Backfill Shall Meet The Requirements Of Section 501 Of The Standard Specifications. At The End Of All Units, The Concrete Backfill Shall Extend 6" Minimum Past The End Of The Drain Opening.
5. Transverse Bars For Slotted Drain Shall Be Spaced 4" To 6" On Center.
6. Whenever The Work Disturbs Existing Conditions Or Work Already Completed, Restore The Same To Its Original Condition In Every Detail. All Such Repair And Replacement Shall Meet The Approval Of The Engineer.
7. Payment To Be Made Under The Contract Unit Price For Slotted Drain, LF.

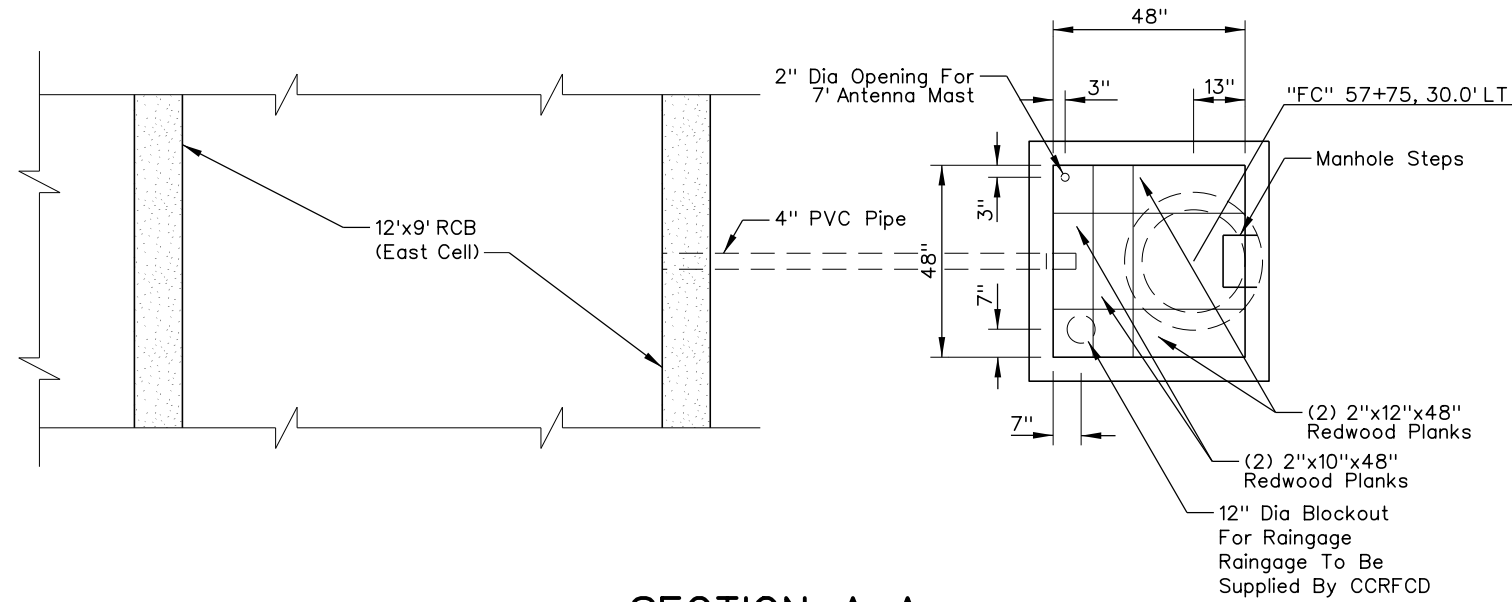
P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN  
**I-15**  
**DRAINAGE DETAILS**

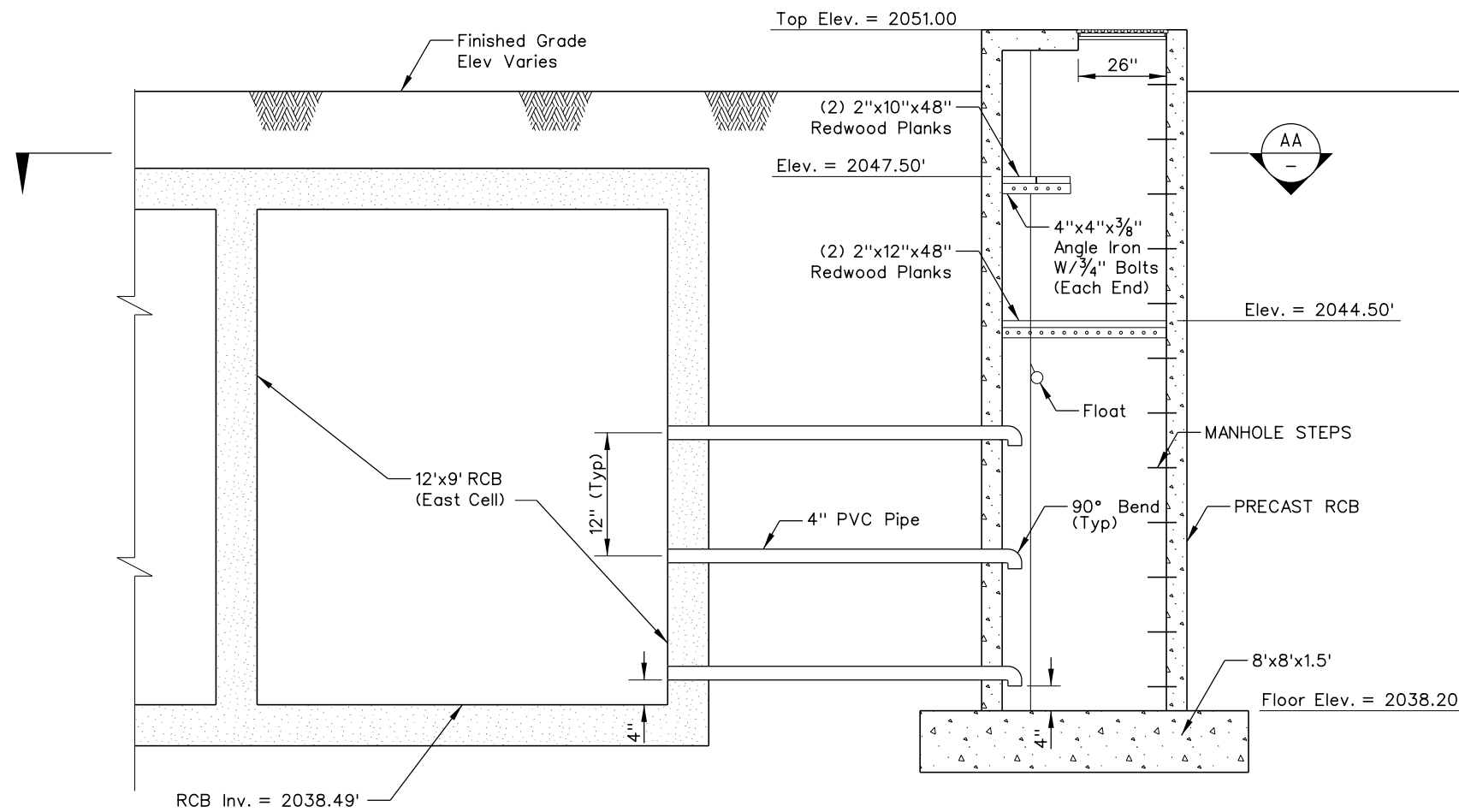
# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD8



### SECTION A-A



### ELEVATION VIEW CCRFCD MONITORING STATION DETAIL

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

## I-15 DRAINAGE DETAILS

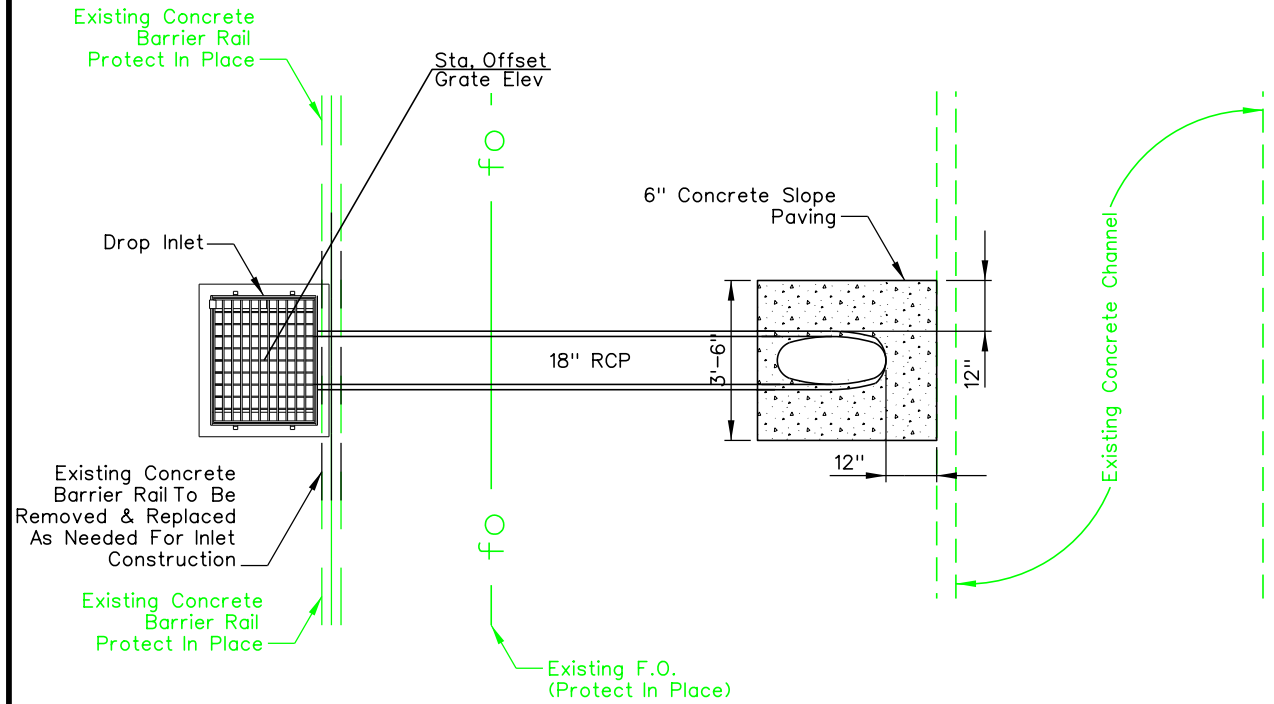


# PRELIMINARY

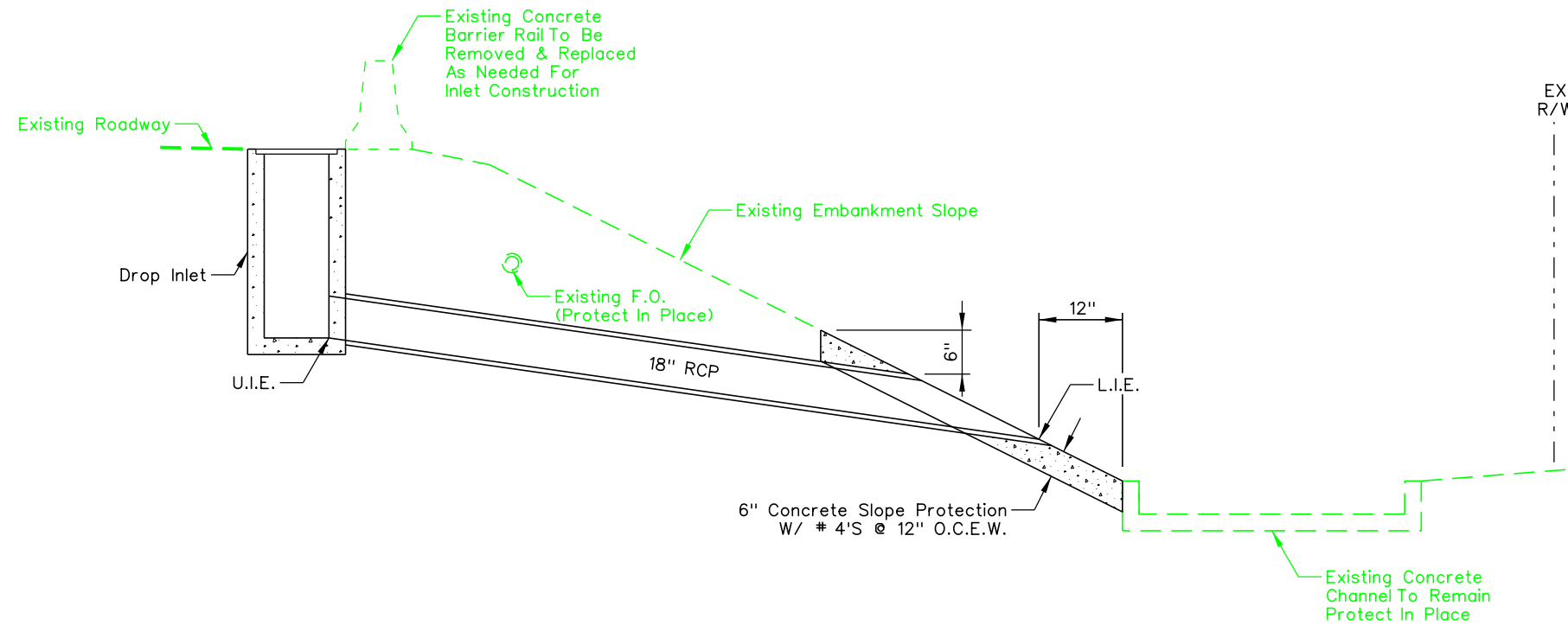
SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD9

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE



### PLAN VIEW



### DROP INLET TO EXISTING CONCRETE CHANNEL TYPICAL CROSS SECTION

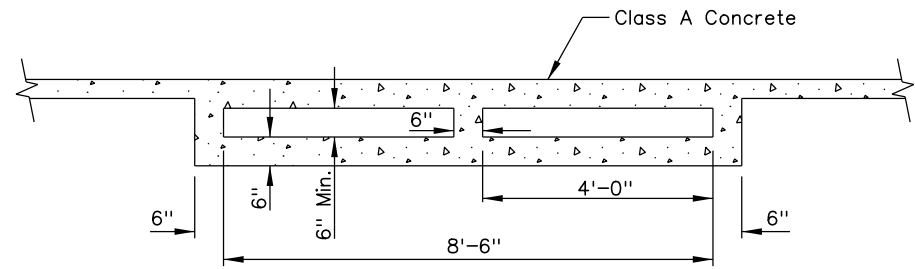
STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

## I-15 DRAINAGE DETAILS

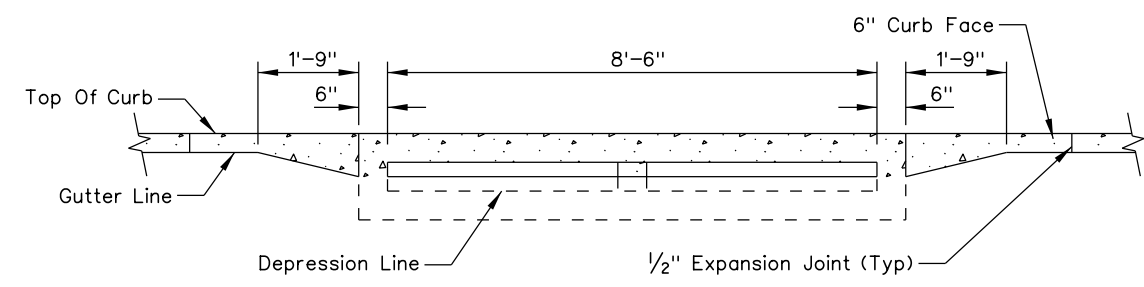
# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

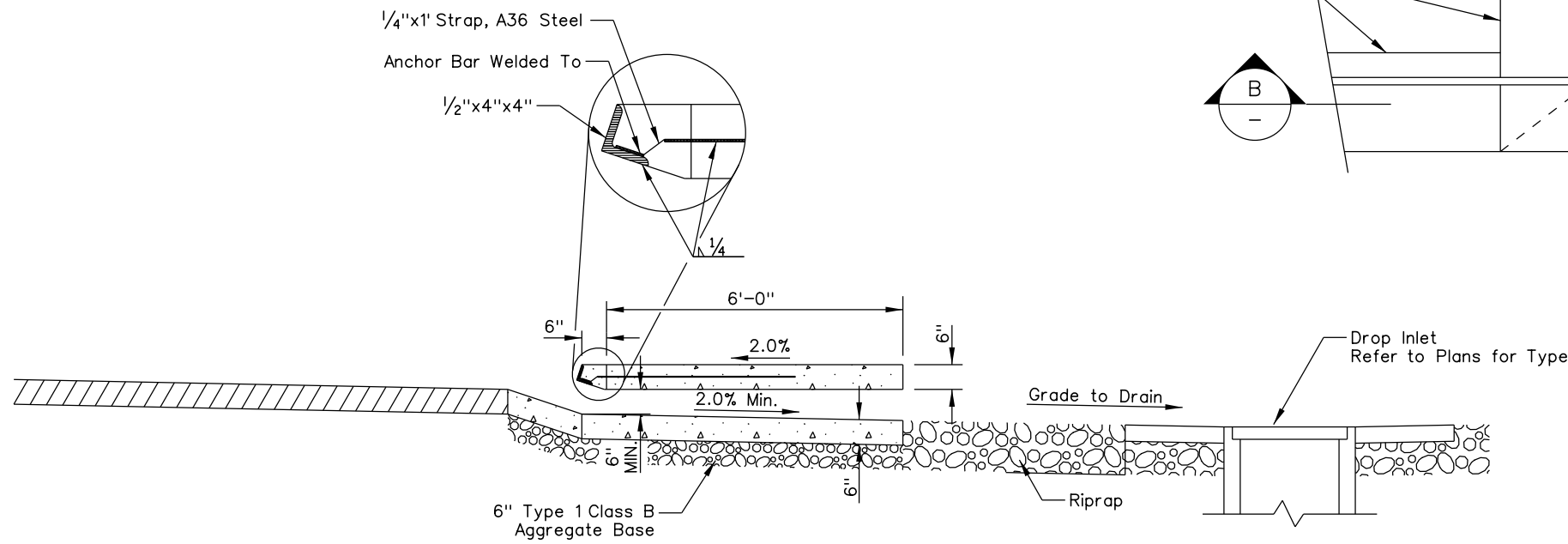
STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD10



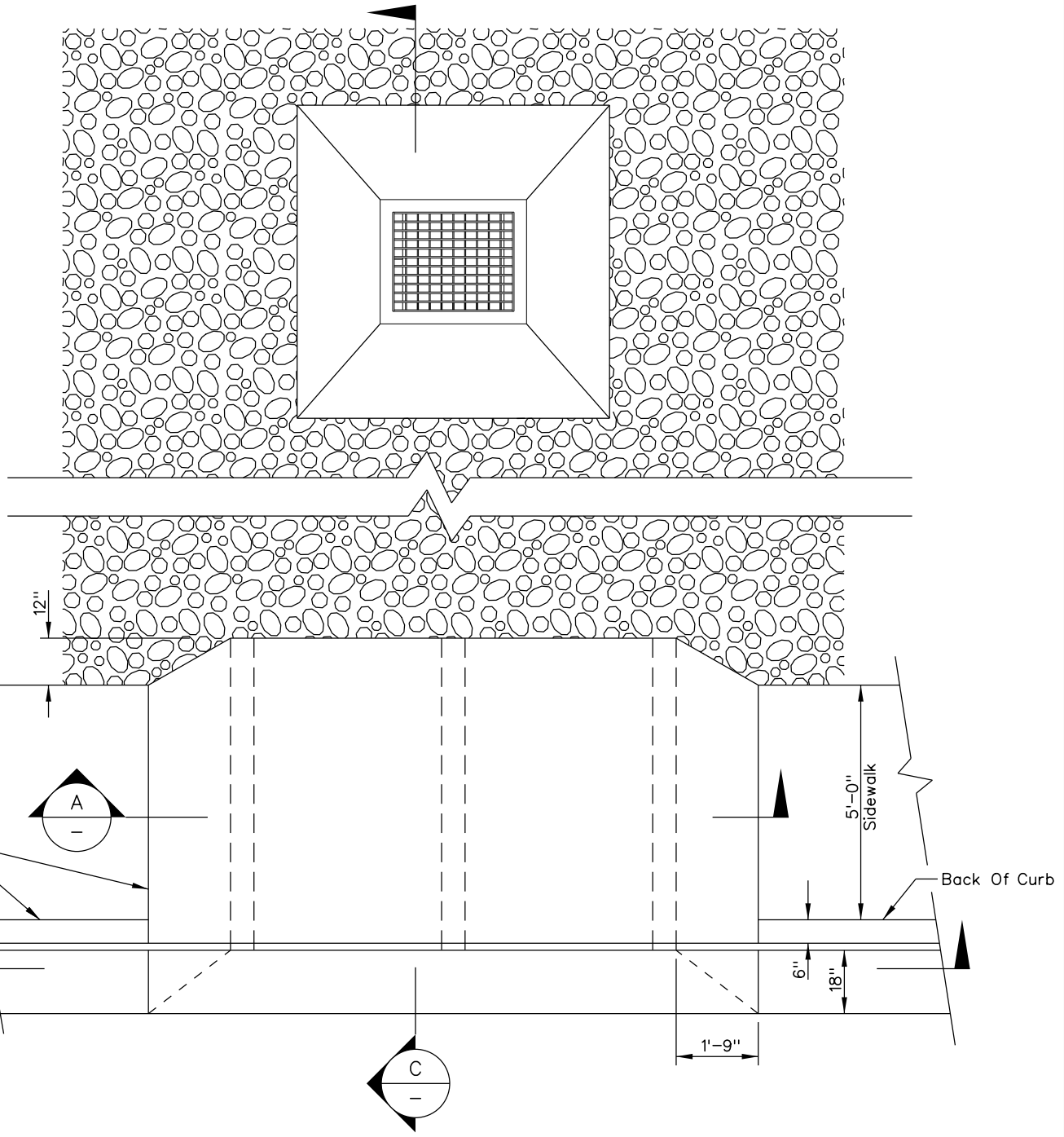
### SECTION A-A



### SECTION B-B



### SECTION C-C CONCRETE SIDEWALK UNDERDRAIN "SA3-R" 10+58, 46.50' LT



### PLAN

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN  
**I-15  
DRAINAGE DETAILS**

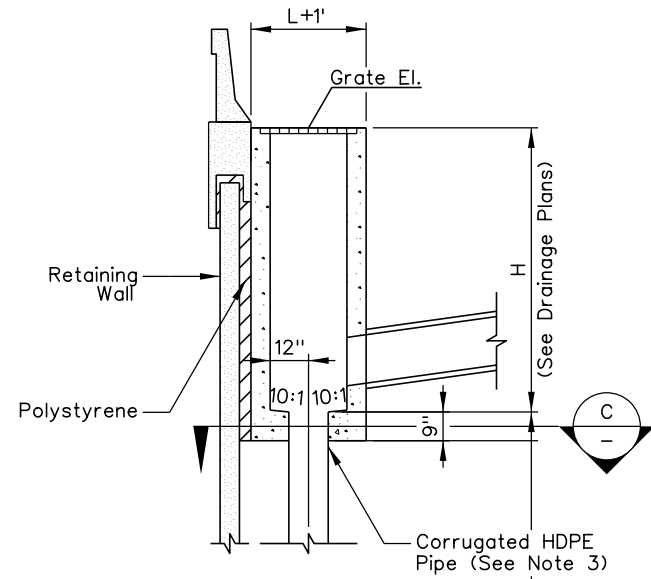
P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE

# PRELIMINARY

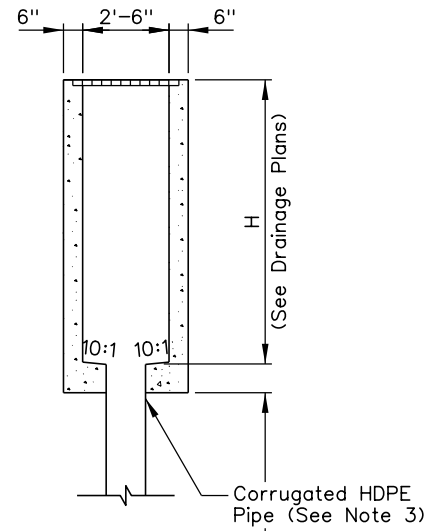
SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD11

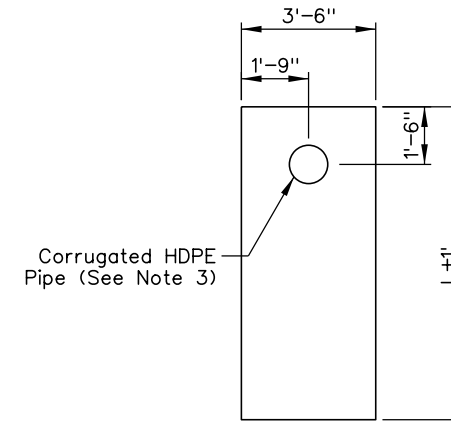
P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE



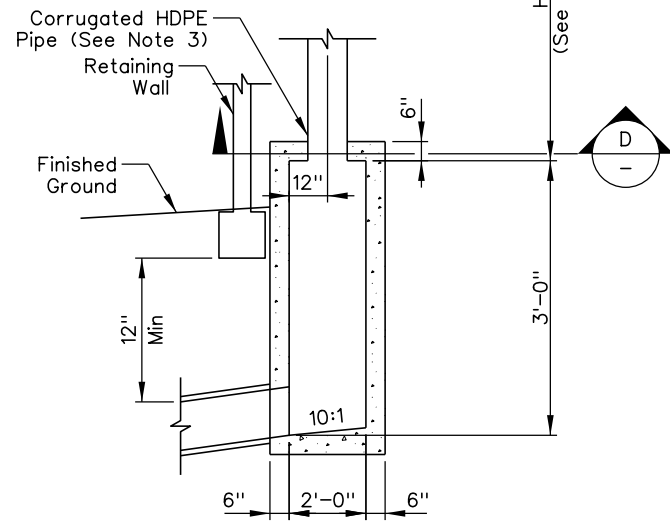
SECTION A



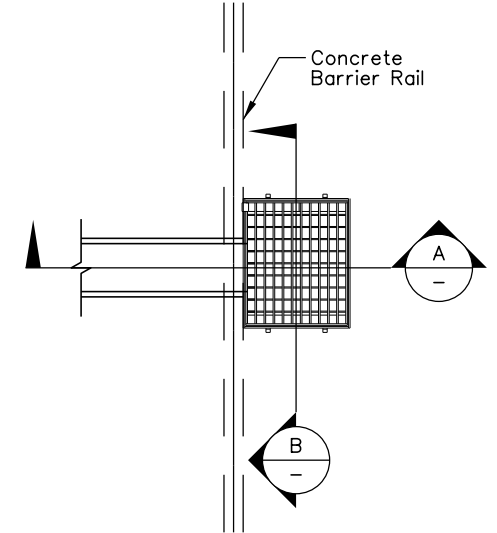
SECTION B



SECTION C



SECTION D



**Notes:**

1. For Details Not Shown, See NDOT Std. DWG R-4.2.1.
2. Station And Offset Shown Is Measured To Center Of Grate Of Drop Inlet.
3. Refer To Plan Sheets For Pipe Diameter.
4. See NDOT Std. DWG R-2.9.1 For HDPE Pipe Connection Details. Water Tight Connection Required.
5. All Corrugated HDPE Pipes Shall Be Type 5, ASTM F2736

## TYPE 2 DROP INLET WITH PIPE RISER

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

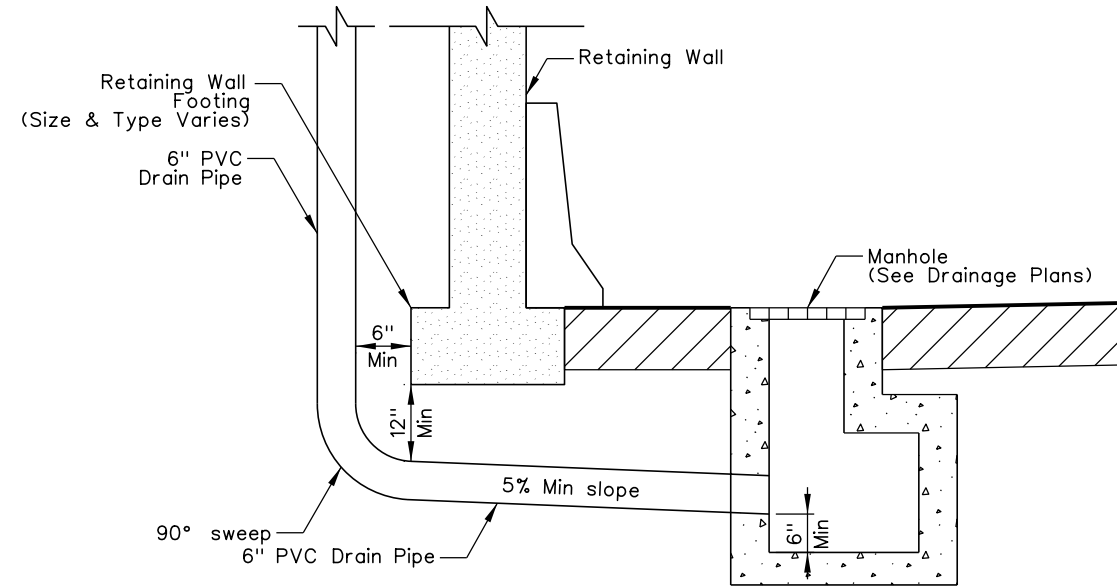
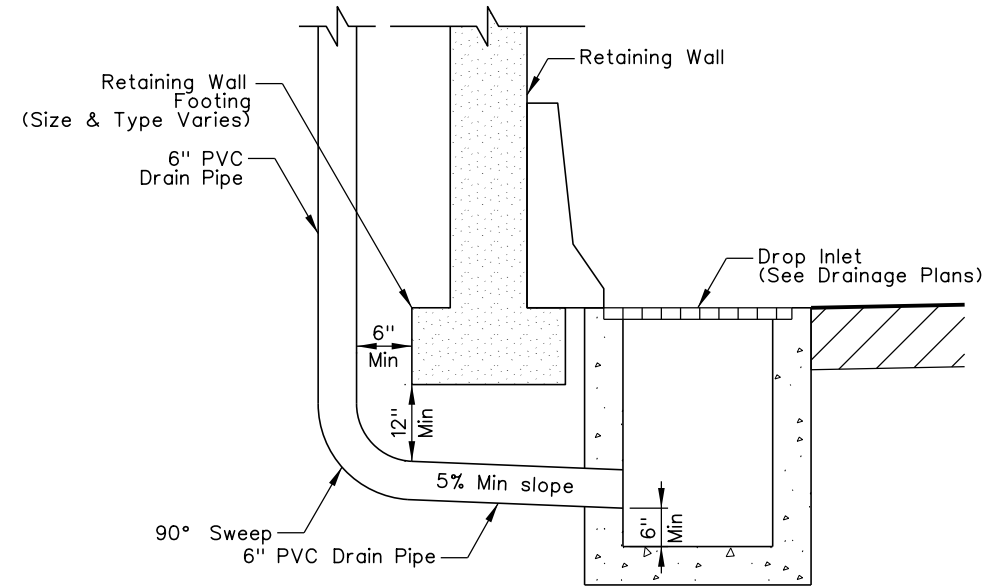
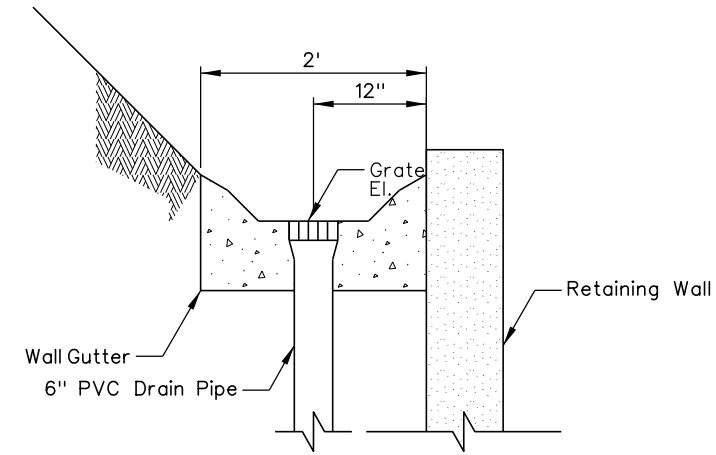
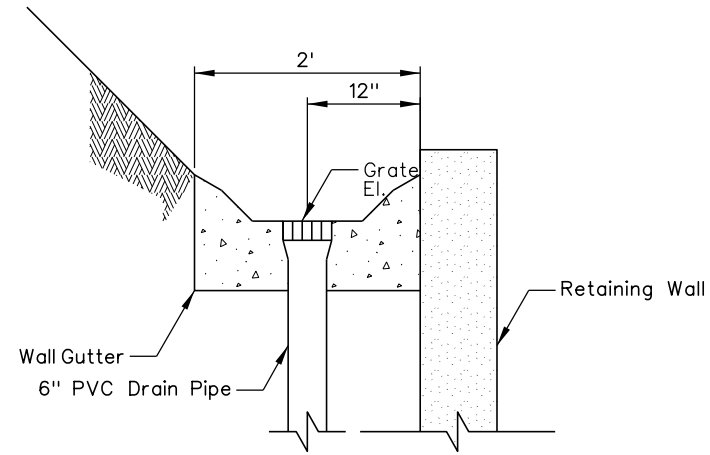
# I-15 DRAINAGE DETAILS

# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD12

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE



### WALL DRAIN DETAIL DROP INLET CONNECTION

### WALL DRAIN DETAIL MANHOLE CONNECTION

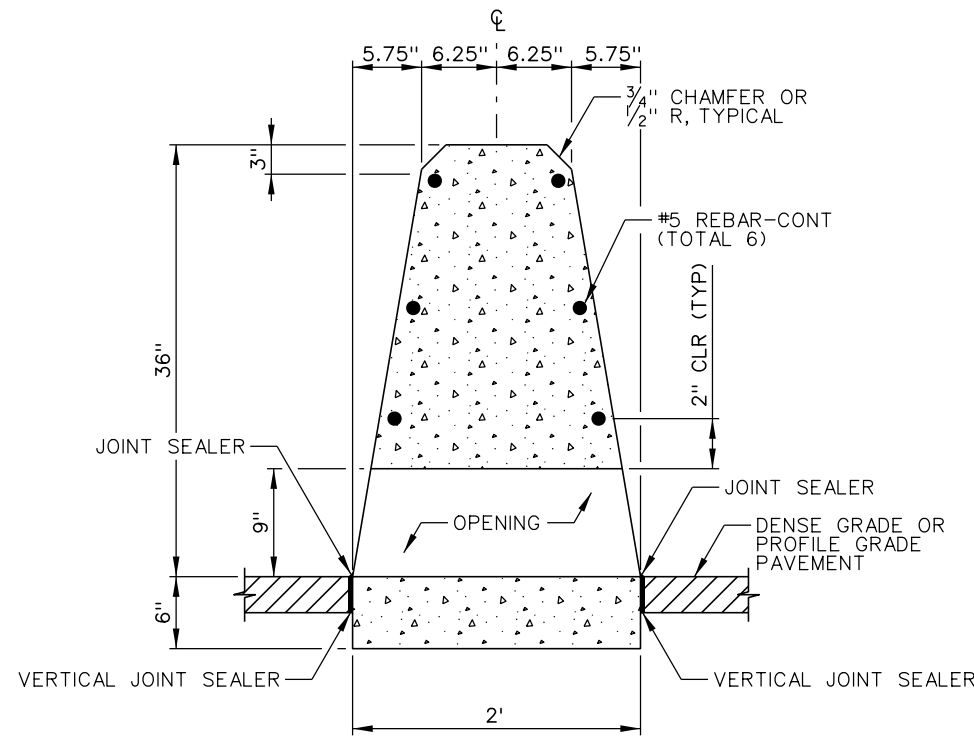
STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

## I-15 DRAINAGE DETAILS

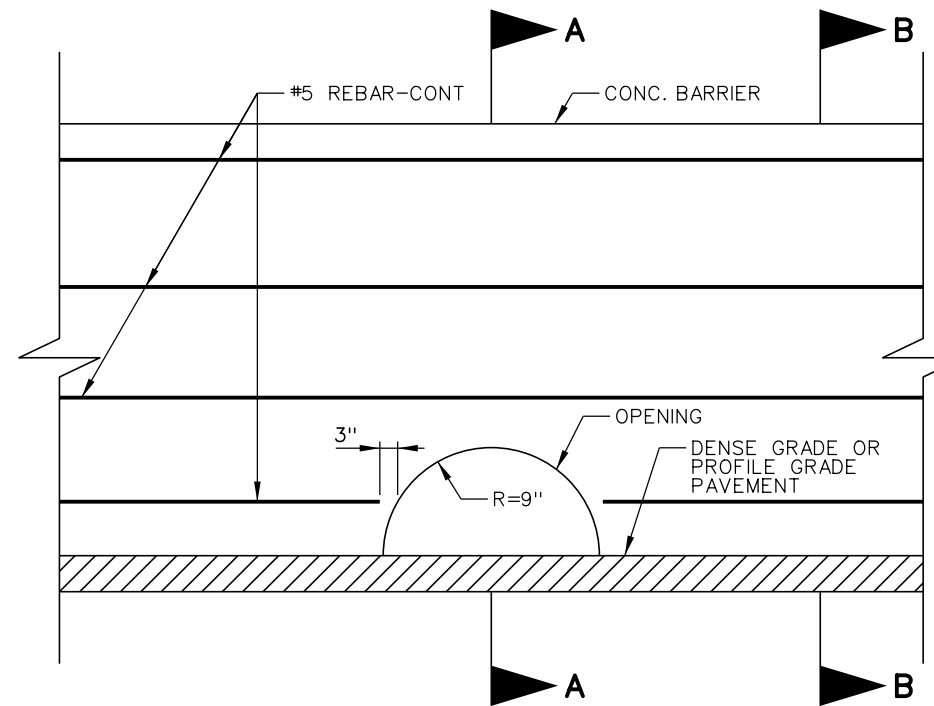
# PRELIMINARY

SUBJECT TO REVISION  
16-DEC-2013

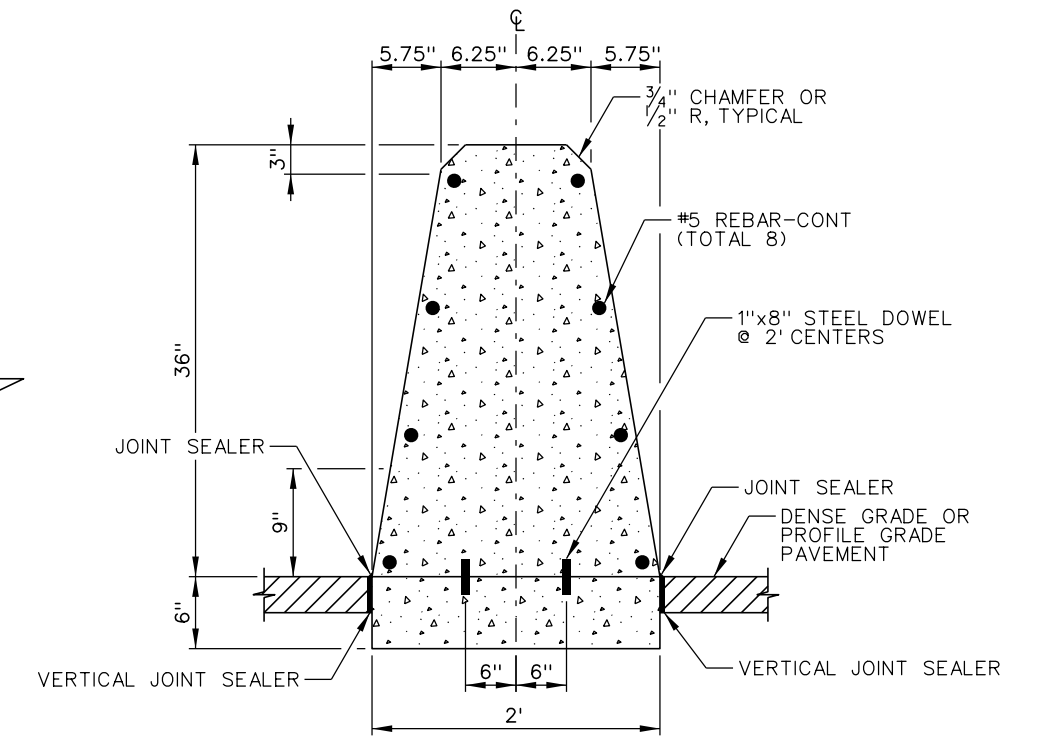
STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD13



SECTION A-A



ELEVATION

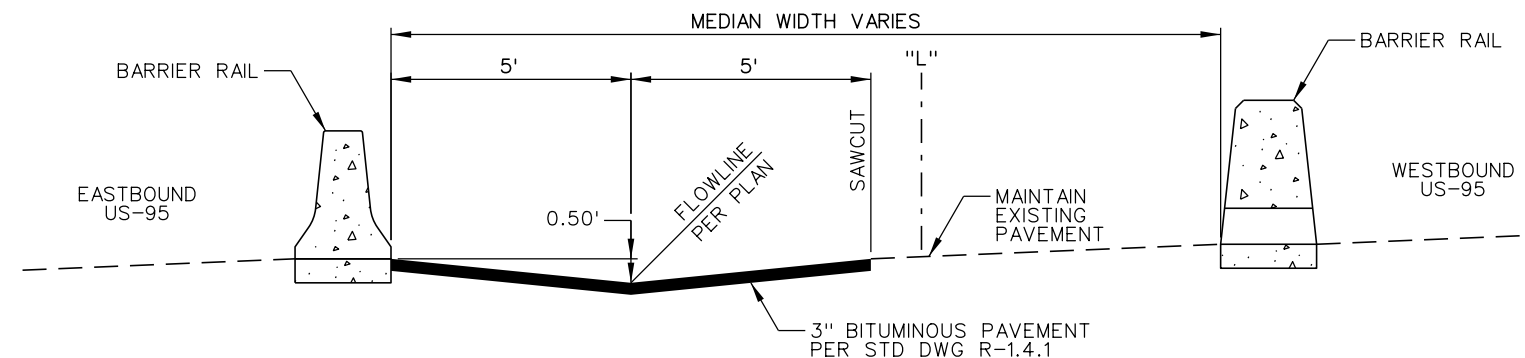


SECTION B-B

NOTES:

1. THE SCUPPER OPENING SHALL BE CAST-IN-PLACE.
2. THE SCUPPER FORM MAY BE LEFT IN PLACE PROVIDED THAT THE FORM IS TRIMMED FLUSH WITH THE OUTSIDE FACE OF THE BARRIER RAIL AND MINIMUM OPENING IS MAINTAINED.
3. CONCRETE SHALL BE CLASS A OR AA. REINFORCING STEEL: USE 4-NO.4 BARS CONTINUOUS IN TYPE A AND TYPE D, CONCRETE BARRIER RAIL. USE 3-NO.4 BARS CONTINUOUS IN TYPE B AND TYPE C, CONCRETE BARRIER RAIL.
4. EXPANSION JOINTS AT ALL STRUCTURES. JOINTS IN BARRIER RAIL OVER A STRUCTURE SHALL BE AT THE SAME LOCATION AND OF THE SAME DIMENSIONS AS THOSE IN THE STRUCTURE. JOINT FILLER NOT REQUIRED IN EXPANSION JOINT IN THE BARRIER RAIL.
5. VERTICAL JOINTS SHALL HAVE A SINGLE COMPONENT HOT APPLIED SEALANT FULL DEPTH OF JOINT.
6. JOINT SEALER SHALL BE A SINGLE COMPONENT HOT APPLIED SEALANT 1" THICK.
7. THE HEIGHT OF THE BARRIER SHALL BE MEASURED FROM THE TOP OF THE PLANTMIX BITUMINOUS SURFACE OR THE TOP OF CONCRETE PAVEMENT.

## BARRIER RAIL SCUPPER



BITUMINOUS V-DITCH

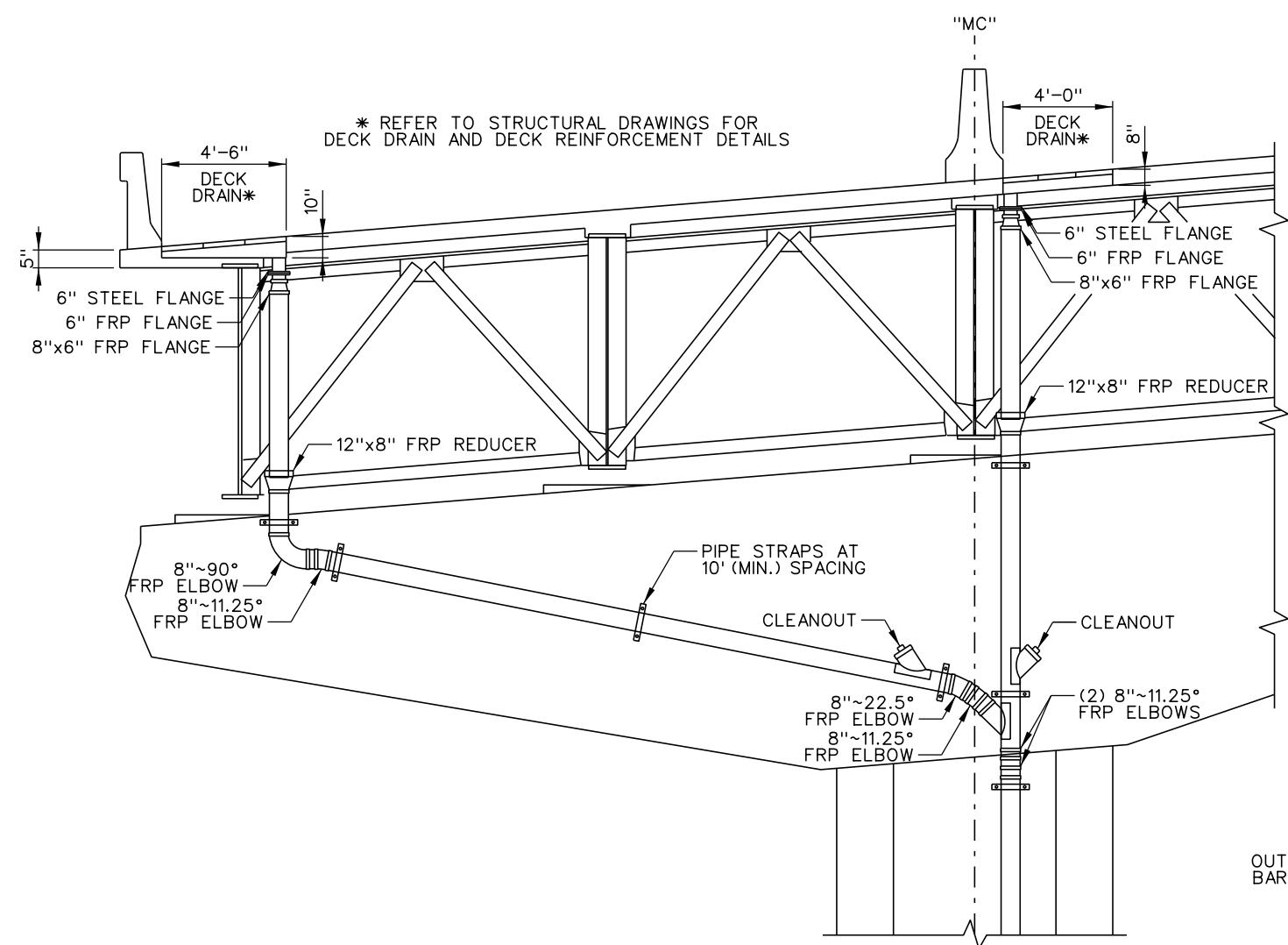
STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN  
**US 95  
DRAINAGE DETAILS**

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE

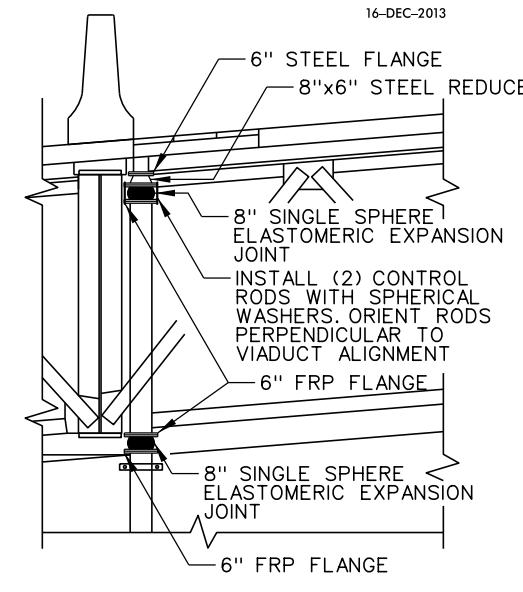
STATE	PROJECT NO.	COUNTY	SHEET NO.
NEVADA	NH-STP-015-1 (147)	CLARK	DD14

# PRELIMINARY

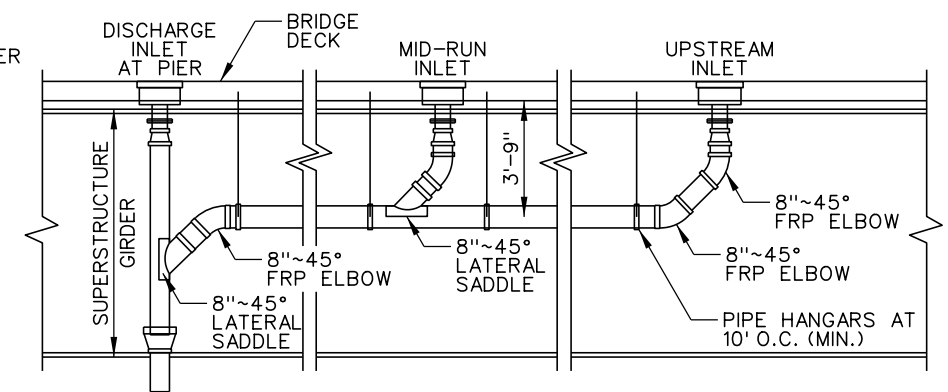
SUBJECT TO REVISION  
16-DEC-2013



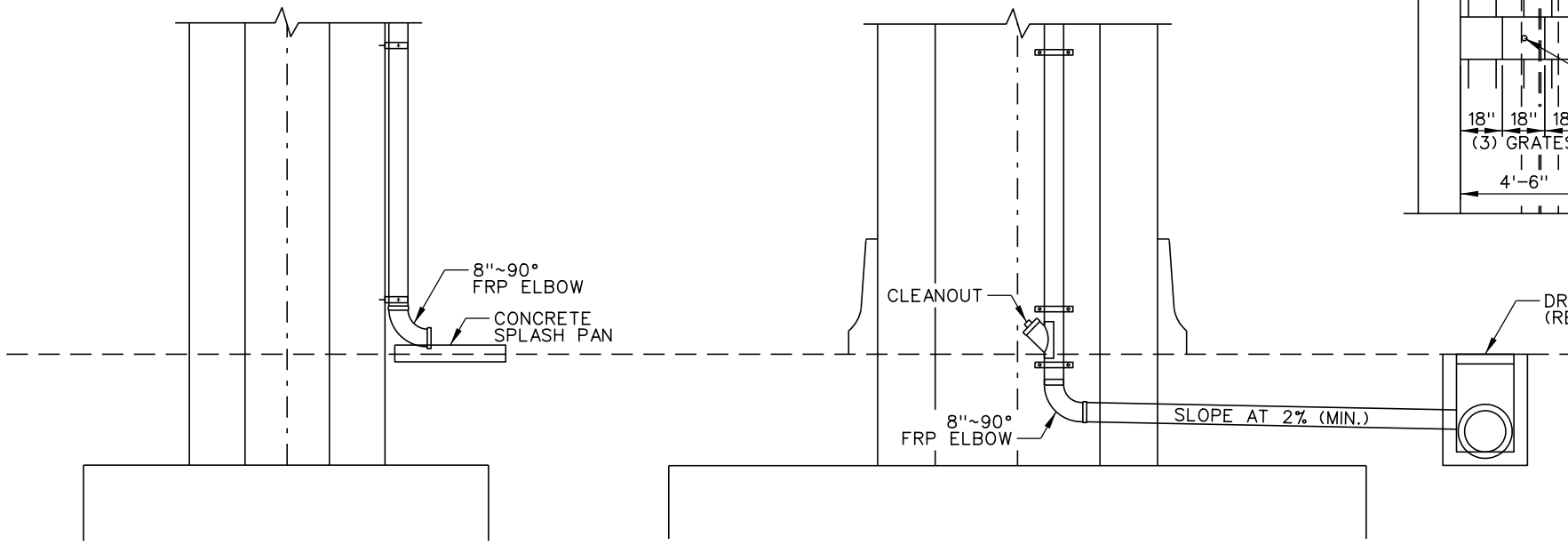
**PIER DOWNDRAIN PIPE SYSTEM**



**DOWNDRAIN AT EXPANSION JOINTS**

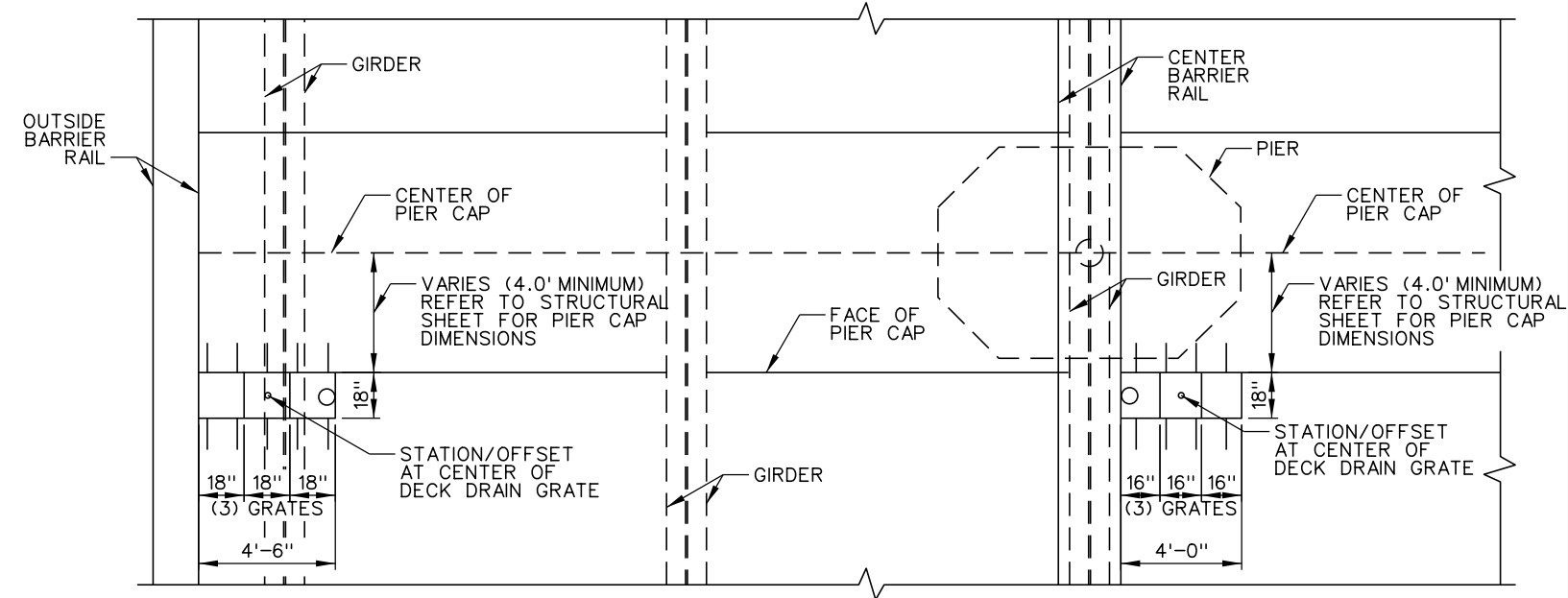


**LONGITUDINAL PIPE SYSTEM**



**DISCHARGE TO SURFACE**

**DISCHARGE TO STORM DRAIN**



**TYPICAL PLAN VIEW**

\* REFER TO STRUCTURAL DRAWINGS FOR DECK DRAIN AND DECK REINFORCEMENT DETAILS

P3 BASE DESIGN DRAWINGS - NOT FOR CONSTRUCTION - SUBJECT TO CHANGE

STATE OF NEVADA  
DEPARTMENT OF TRANSPORTATION  
PROJECT NEON - P3 DESIGN

## US 95 DRAINAGE DETAILS