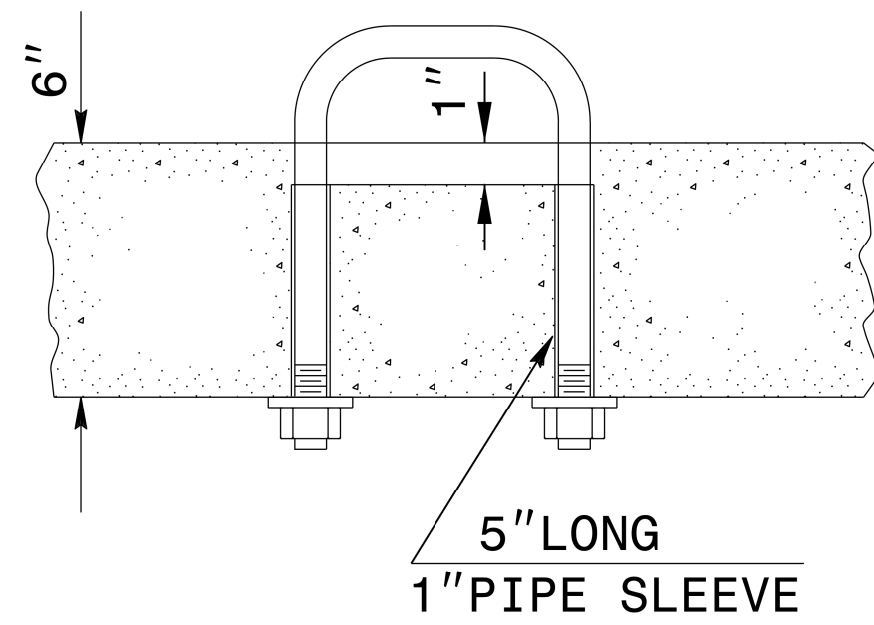


**This electronic collection of documents is provided  
for the convenience of the user  
and is Not a Certified Document –**

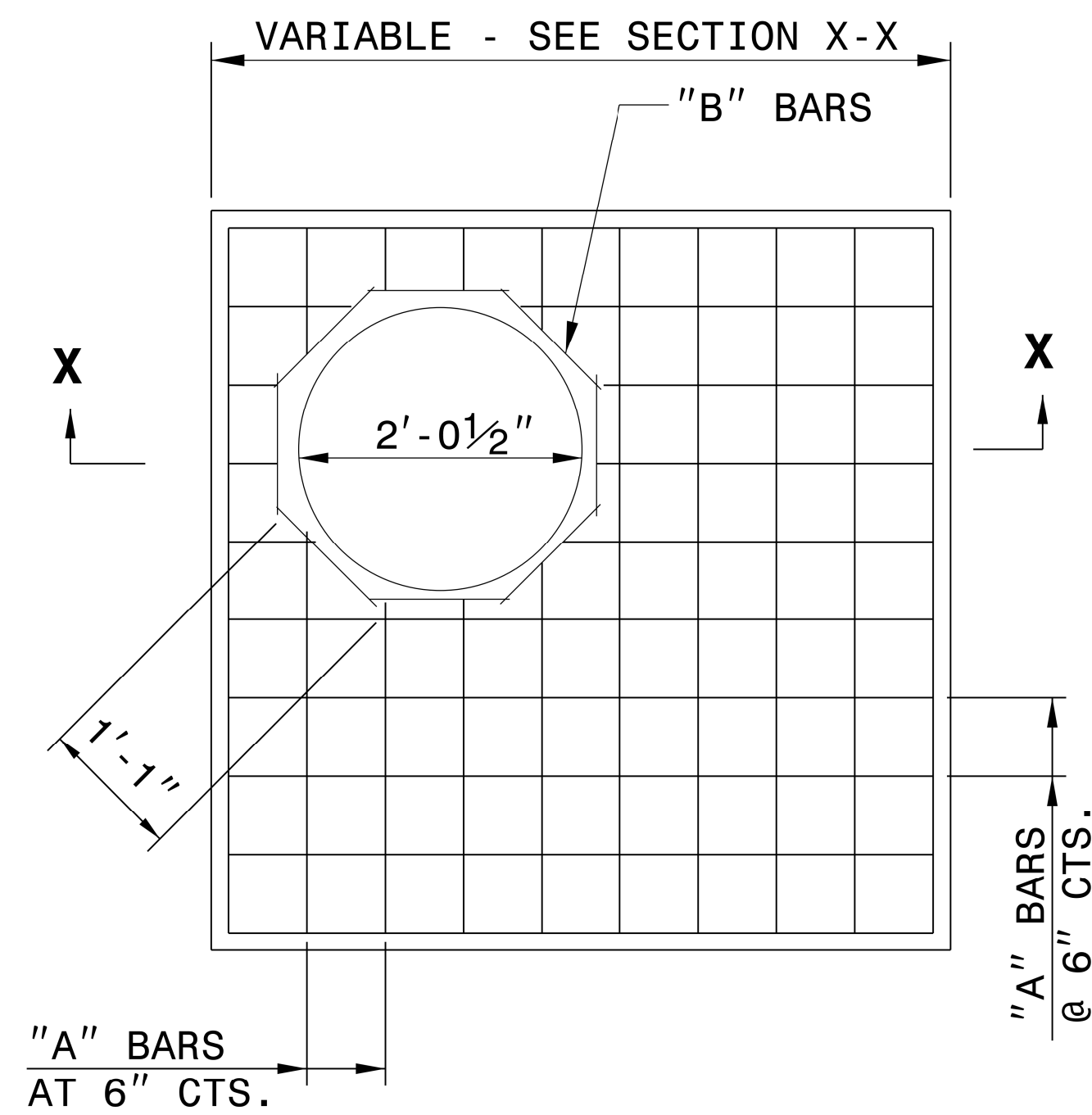
**The documents contained herein were originally issued  
and sealed by the individuals whose names and license  
numbers appear on each page, on the dates appearing  
with their signature on that page.**

**This file or an individual page  
shall not be considered a certified document.**

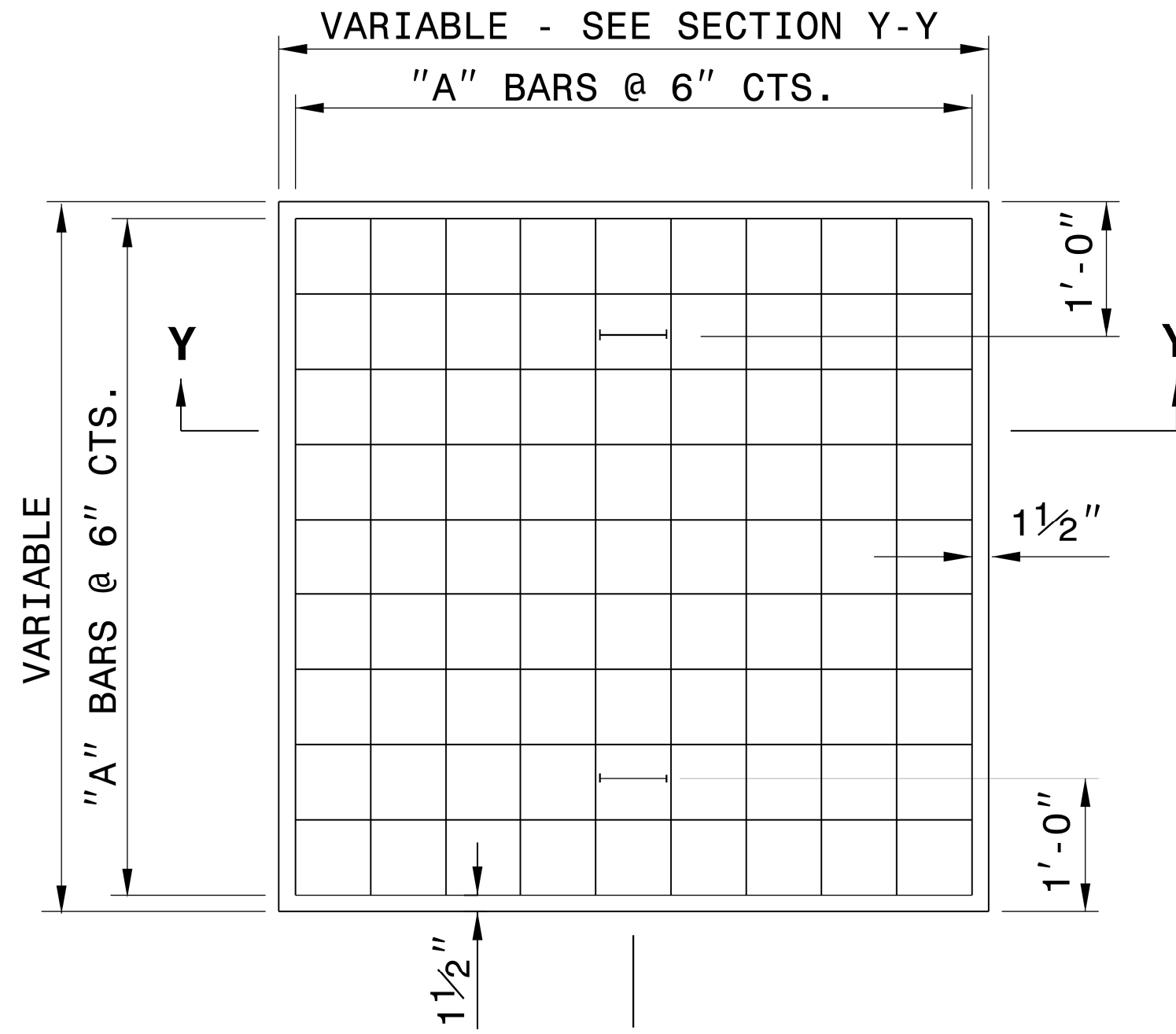




**PARTIAL SECTION**



**PLAN**



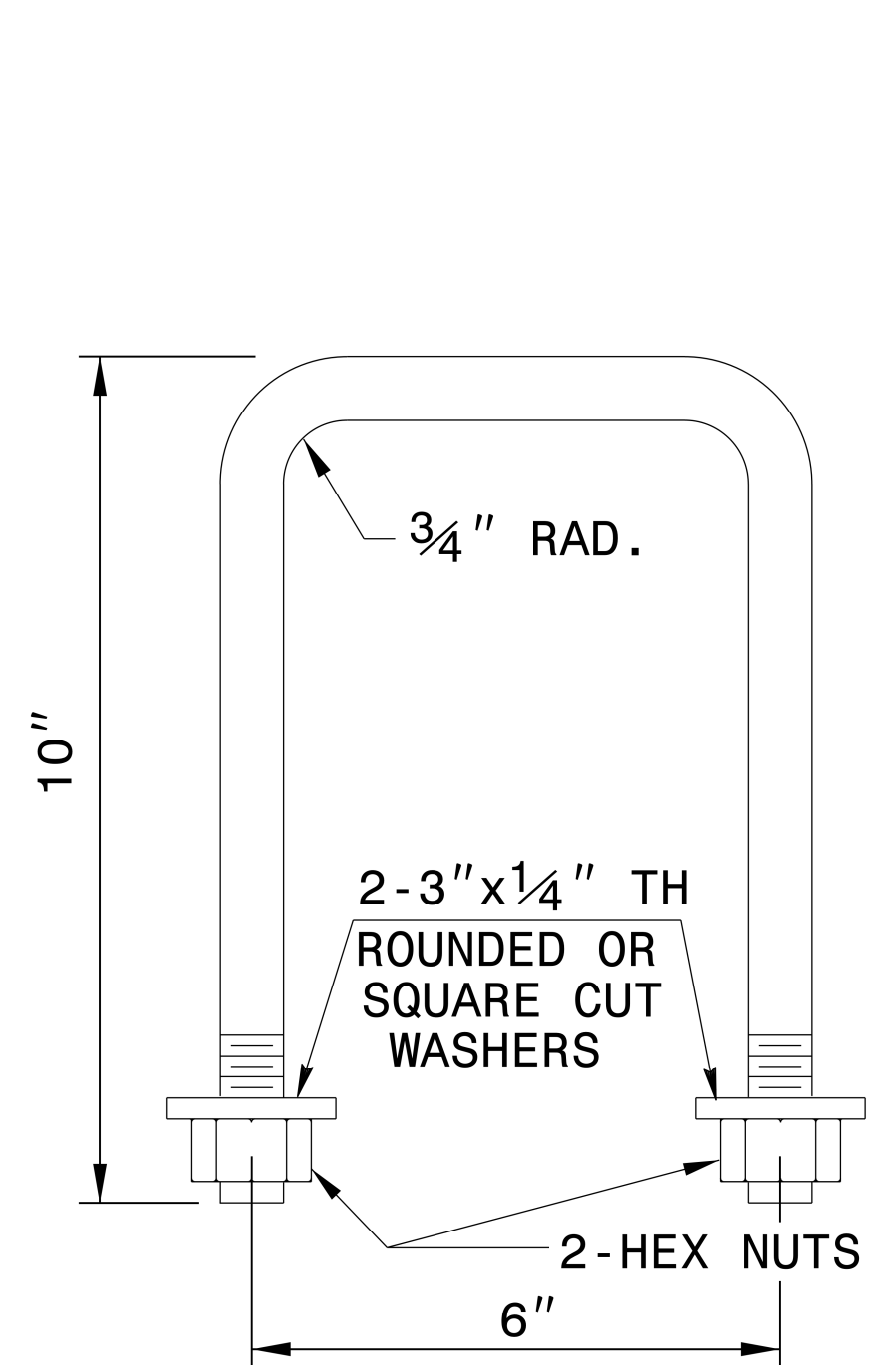
**PLAN**

**GENERAL NOTES:**

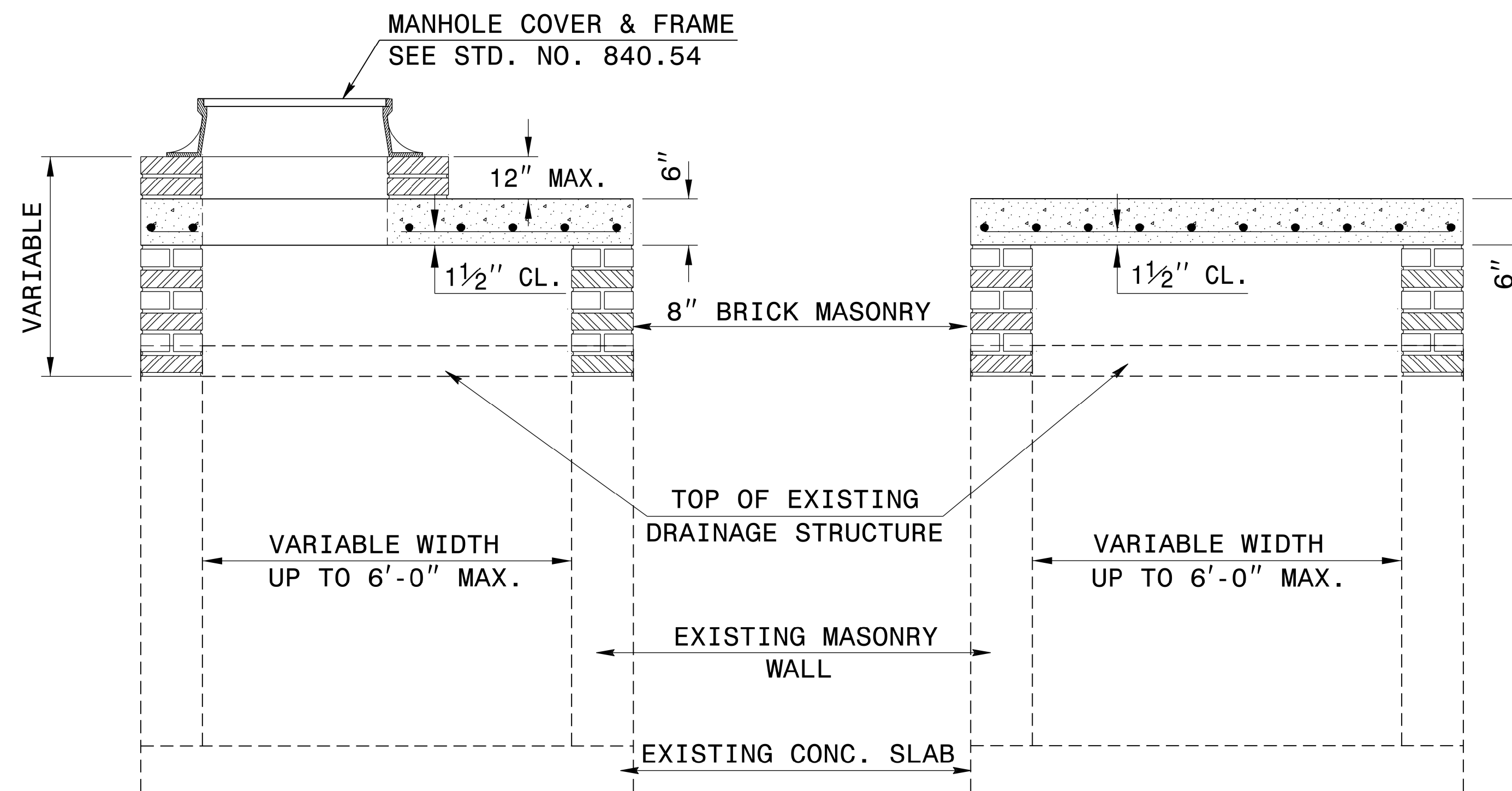
CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.

THE DIMENSIONS FOR THE EXISTING BOXES ARE APPROXIMATE AND MAY VARY SLIGHTLY.

DETAIL INTENDED FOR NON-TRAFFIC BEARING DRAINAGE STRUCTURES.



**DETAIL OF HANDLE**



**SECTION X-X**

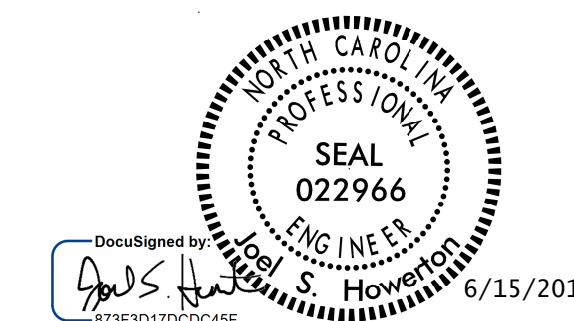
**SECTION Y-Y**

**BILL OF MATERIALS**

REINFORCING STEEL				
CODE	SIZE	QTY.	LENGTH	REINF. STEEL LBS.
A	#4	20	4'-6"	60.12
B	#4	8	1'-1"	5.79
<b>TOTAL</b>				<b>65.91 *</b>
MASONRY				CU YDS
TOP SLAB CONCRETE CLASS "B"				.4326 *
BRICK MASONRY PER FT HT (MIN)				.4111

**\* NOTE:**  
QUANTITIES BASED ON 3'-6" X 3'-6" DRAINAGE STRUCTURE. ADJUST QUANTITIES FOR LARGER STRUCTURES AND MANHOLE CONSTRUCTION.

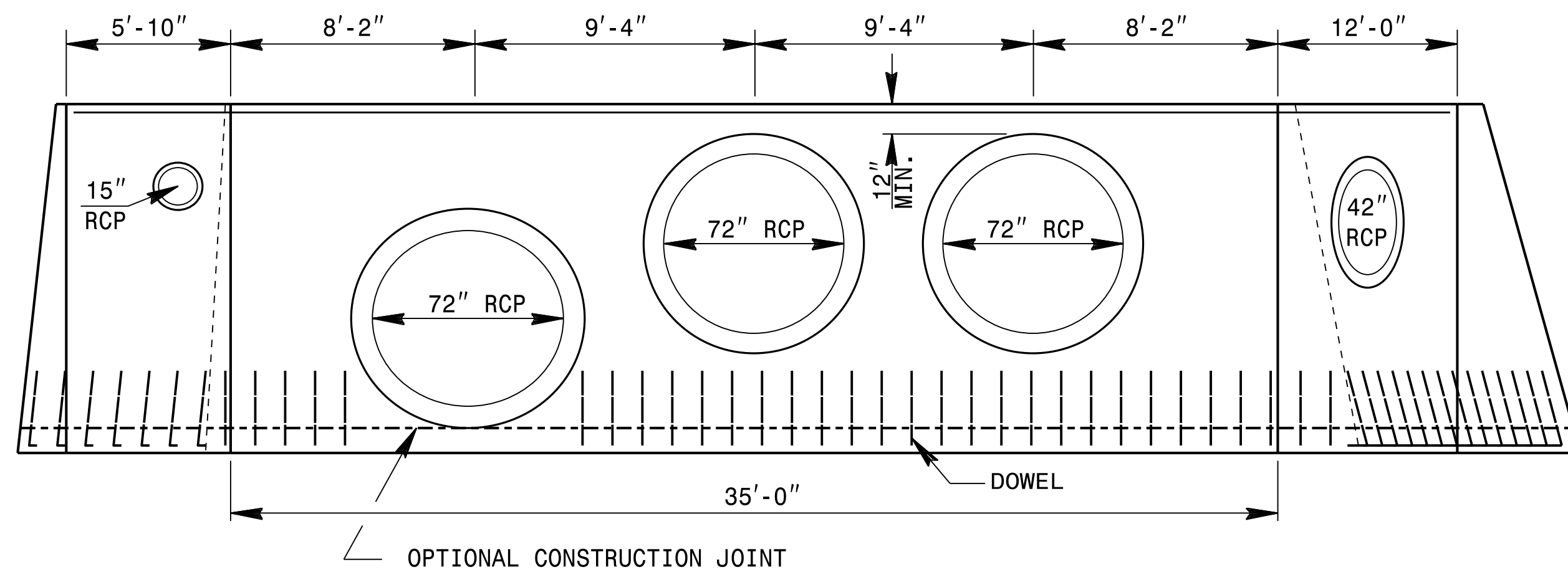
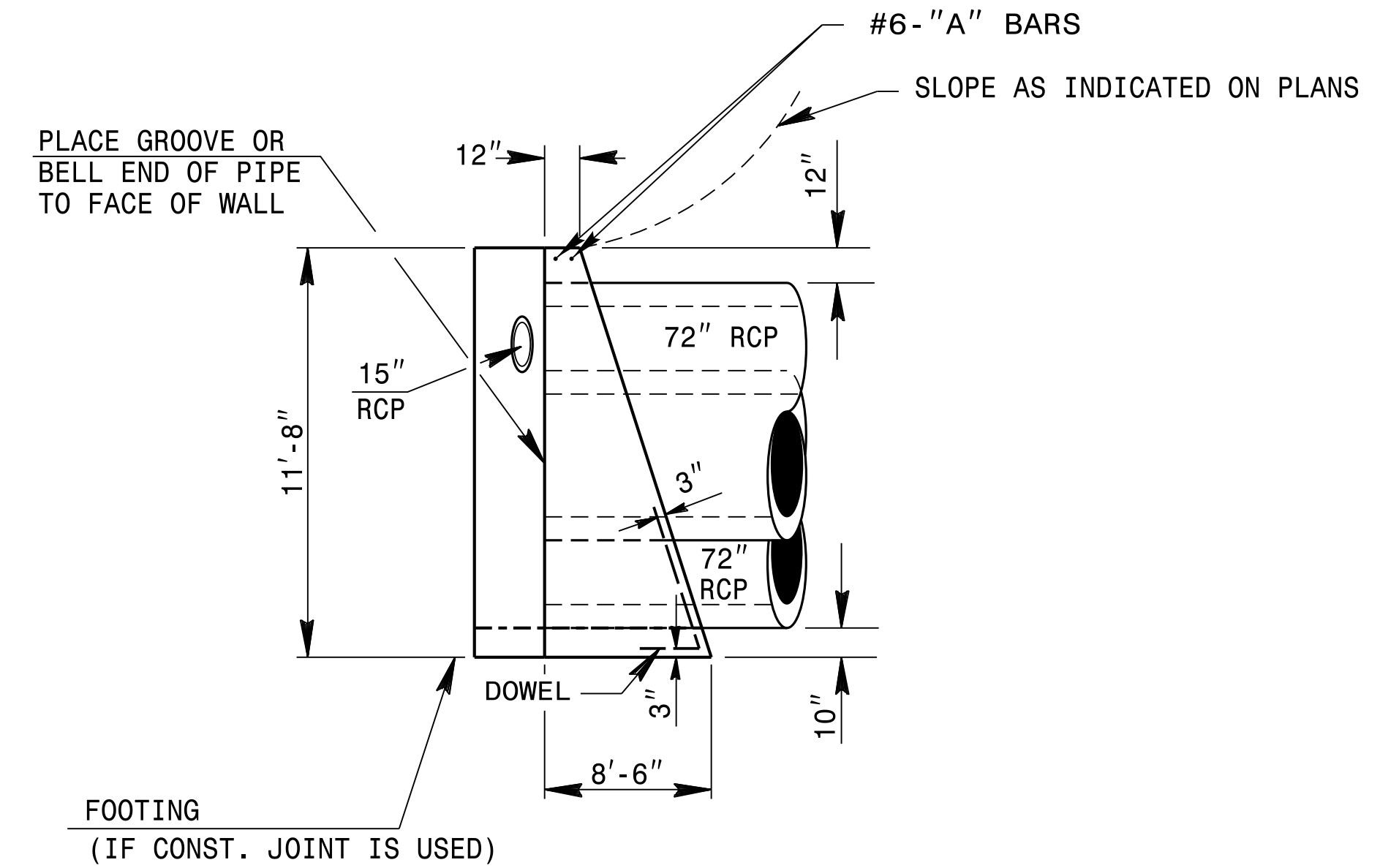
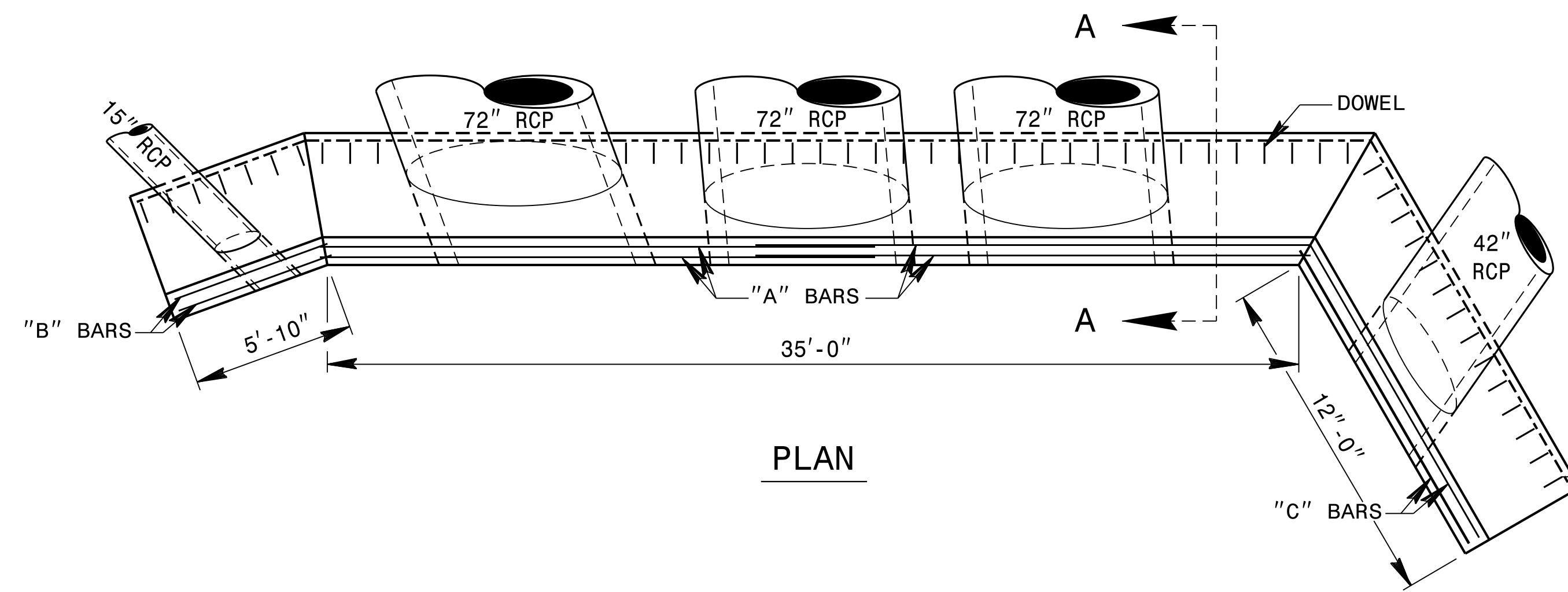
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



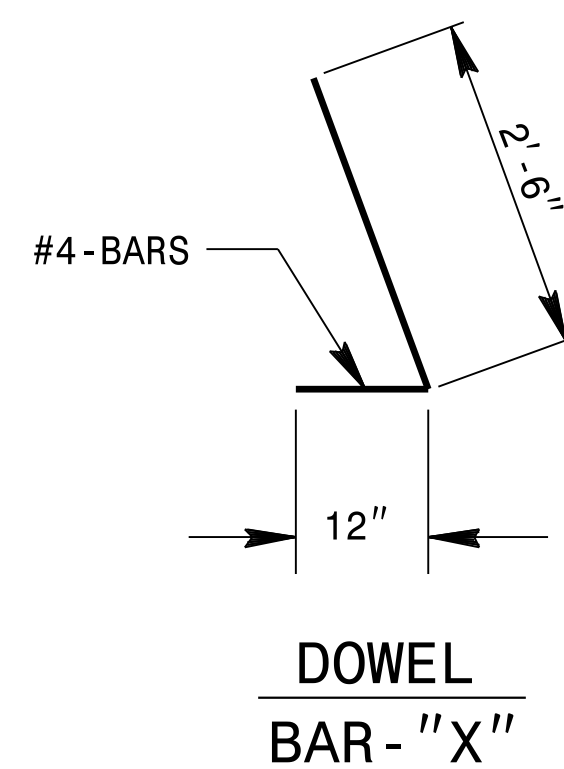
**CONTRACT STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119  
**DETAIL TO CONVERT EXISTING DI, CB, OTCB or GI TO JUNCTION BOX (MANHOLE OPTIONAL)**

ORIGINAL BY: T.S.S. DATE: NOV. 1997  
MODIFIED BY: T.S.S. DATE: FEB. 2000  
CHECKED BY: DATE:  
FILE SPEC.: ds174:/usr/details/stand/boxtojb.dgn

\* NOT TO SCALE

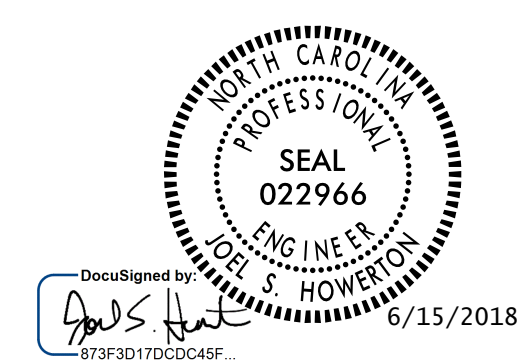


ELEVATION



- GENERAL NOTES:
- CHAMFER ALL CORNERS 1".
  - USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE, PLACE BAR 'X' DOWELS IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS IS TO BE APPROXIMATELY 12" CENTERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE AND POUR THE BASE SEPARATELY THE POUR SHALL BE LEFT ROUGH.
  - REINFORCING STEEL TO BE CUT, BENT OR RELOCATED AS DIRECTED BY THE ENGINEER.
  - FINAL LOCATION OF PIPES TO BE DETERMINED BY THE ENGINEER.
  - SEE SPECIAL DETAIL FOR FENCE INSTALLATION IF REQUIRED BY THE ENGINEER.
  - USE CLASS "B" CONCRETE.

BILL OF MATERIALS				
BAR	QTY	SIZE	LENGTH	WEIGHT
A	4	#6	20'-0"	120
B	2	#6	5'-10"	18
C	2	#6	12'-2"	37
X	51	#4	3'-6"	119
TOTAL REINF. STEEL (lbs.)				294
TOTAL CONC. CU. YDS.				116.4
PIPE DEDUCTIONS CU. YDS.				15.6



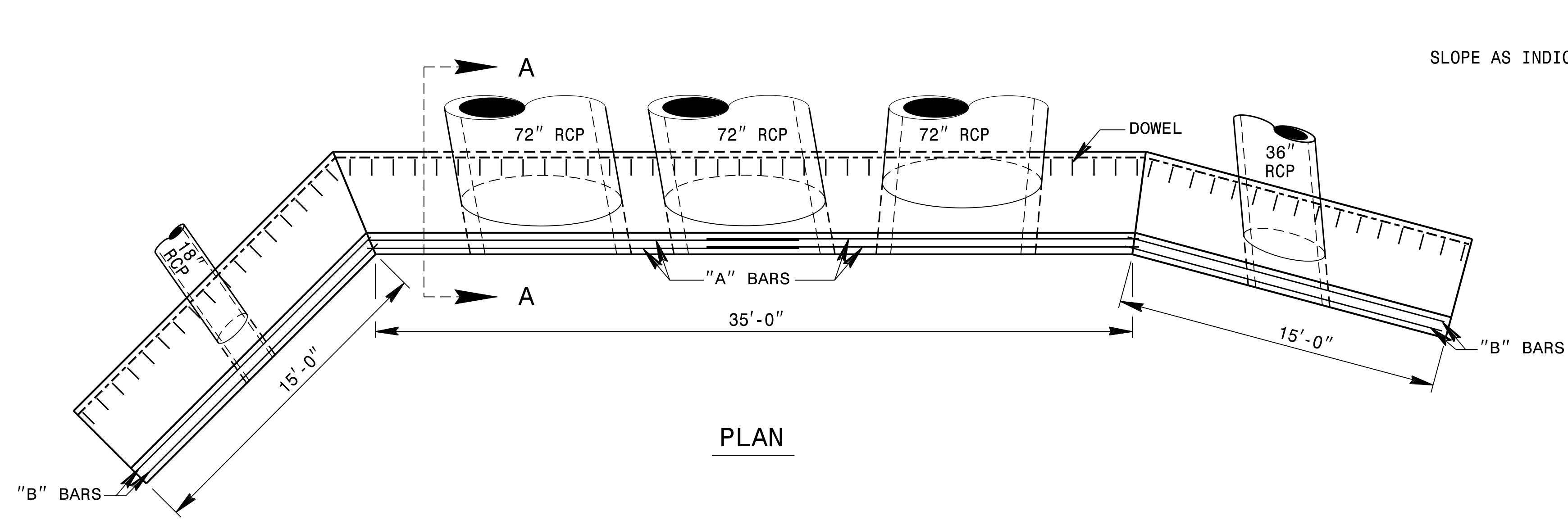
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**CONTRACTS STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**CONCRETE ENDWALL FOR 3 - 72" RCP, W/ PIPES IN WINGWALLS**

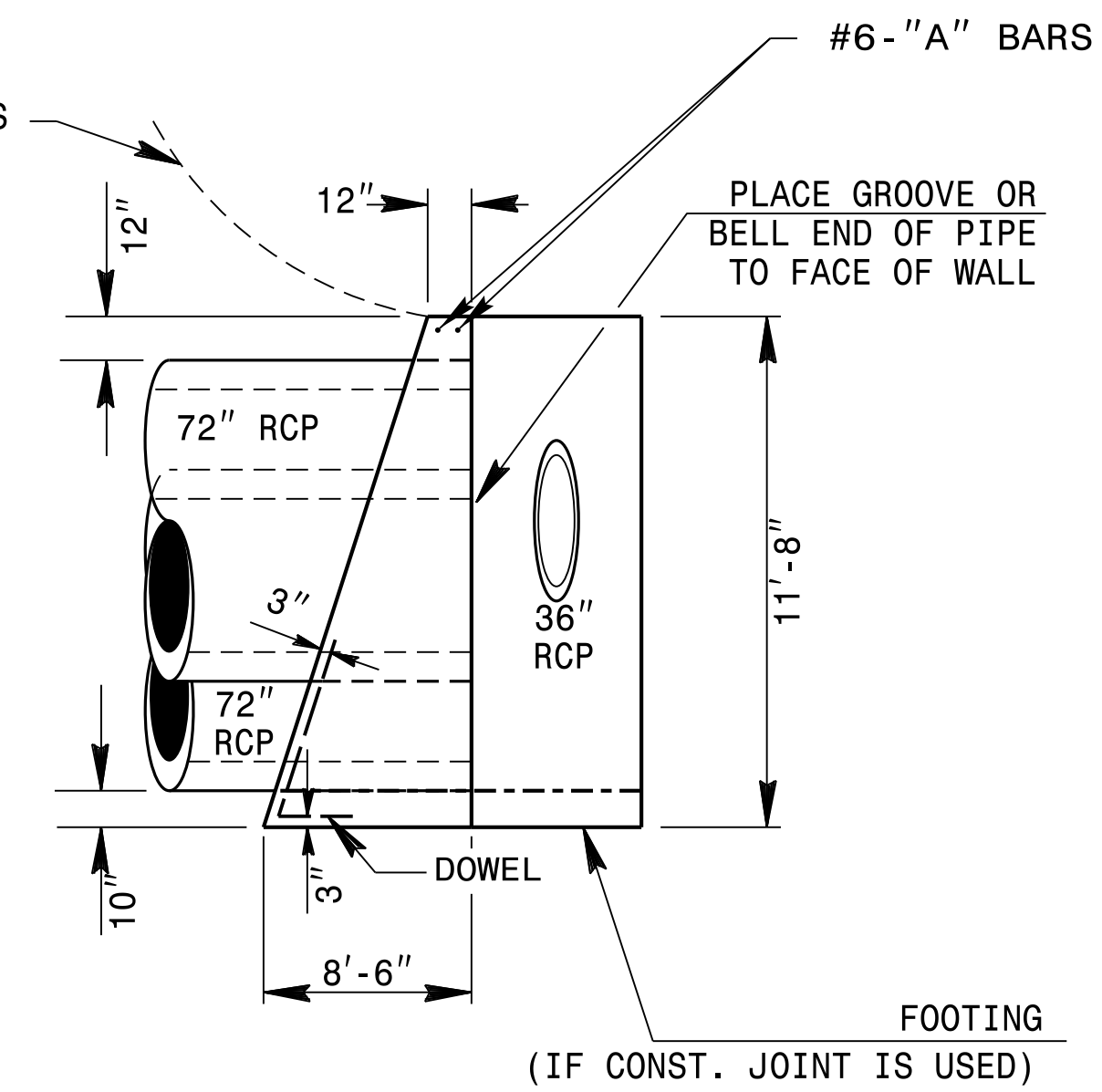
ORIGINAL BY: K KEMPF DATE: 04-25-18  
 MODIFIED BY: DATE:  
 CHECKED BY: DATE:  
 FILE SPEC.: kkempf\english\U4405\_endwalls.dgn

\* NOT TO SCALE

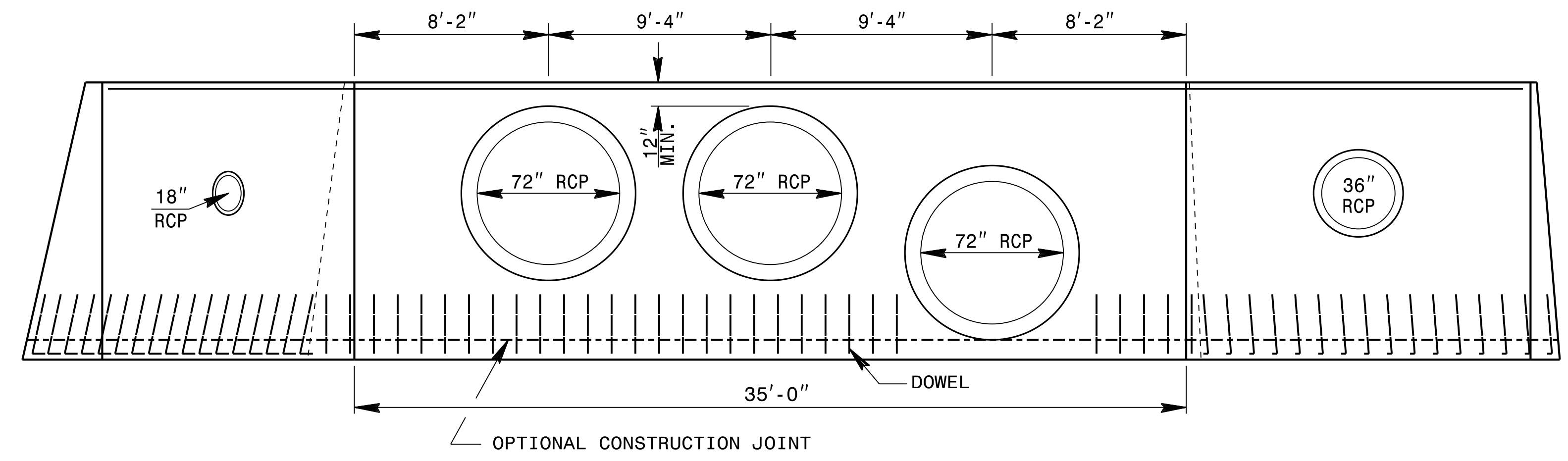


PLAN

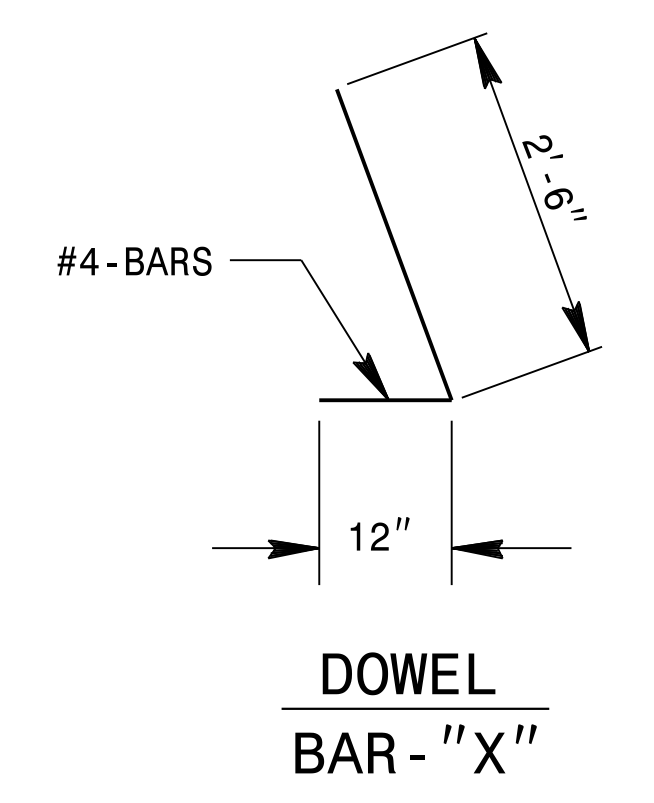
SLOPE AS INDICATED ON PLANS



'A' SECTION



ELEVATION



- GENERAL NOTES:
- CHAMFER ALL CORNERS 1".
  - USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE, PLACE BAR 'X' DOWELS IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS IS TO BE APPROXIMATELY 12" CENTERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE AND POUR THE BASE SEPARATELY THE POUR SHALL BE LEFT ROUGH.
  - REINFORCING STEEL TO BE CUT, BENT OR RELOCATED AS DIRECTED BY THE ENGINEER.
  - FINAL LOCATION OF PIPES TO BE DETERMINED BY THE ENGINEER.
  - SEE SPECIAL DETAIL FOR FENCE INSTALLATION IF REQUIRED BY THE ENGINEER.
  - USE CLASS "B" CONCRETE.

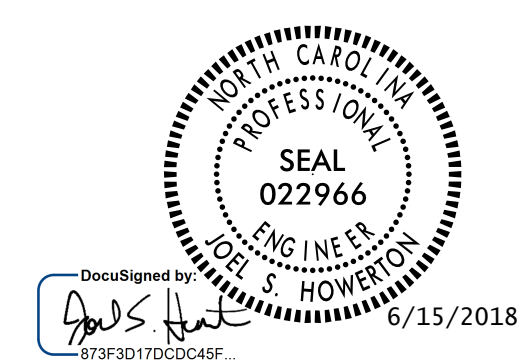
BILL OF MATERIALS				
BAR	QTY	SIZE	LENGTH	WEIGHT
A	4	#6	20'-0"	120
B	4	#6	15'-0"	90
X	63	#4	3'-6"	147
TOTAL REINF. STEEL (lbs.)				357
TOTAL CONC. CU. YDS.				142.8
PIPE DEDUCTIONS CU. YDS.				15.7

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

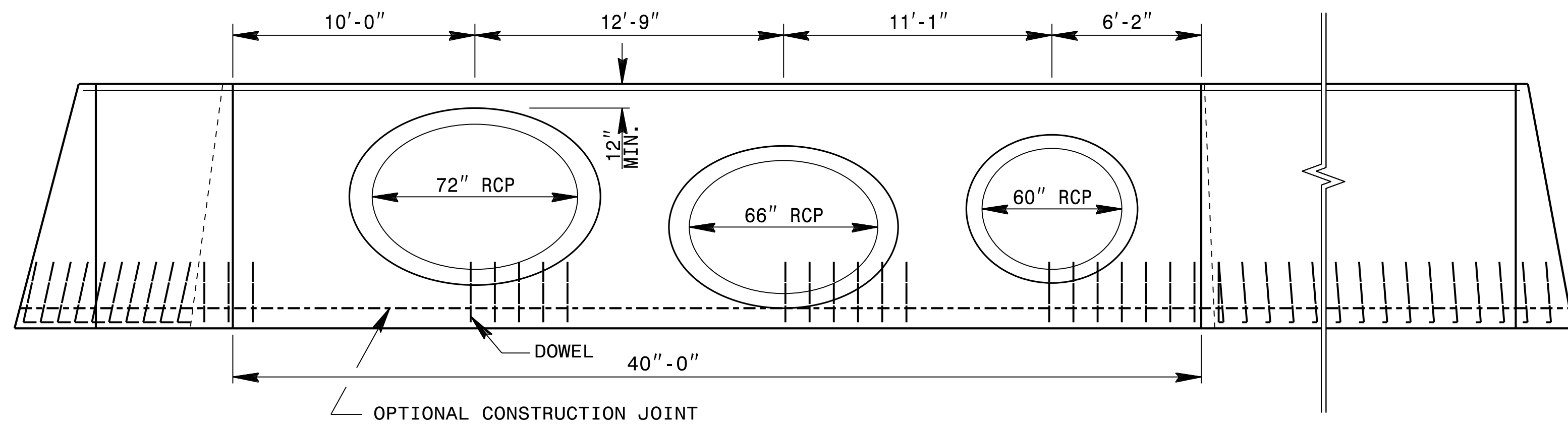
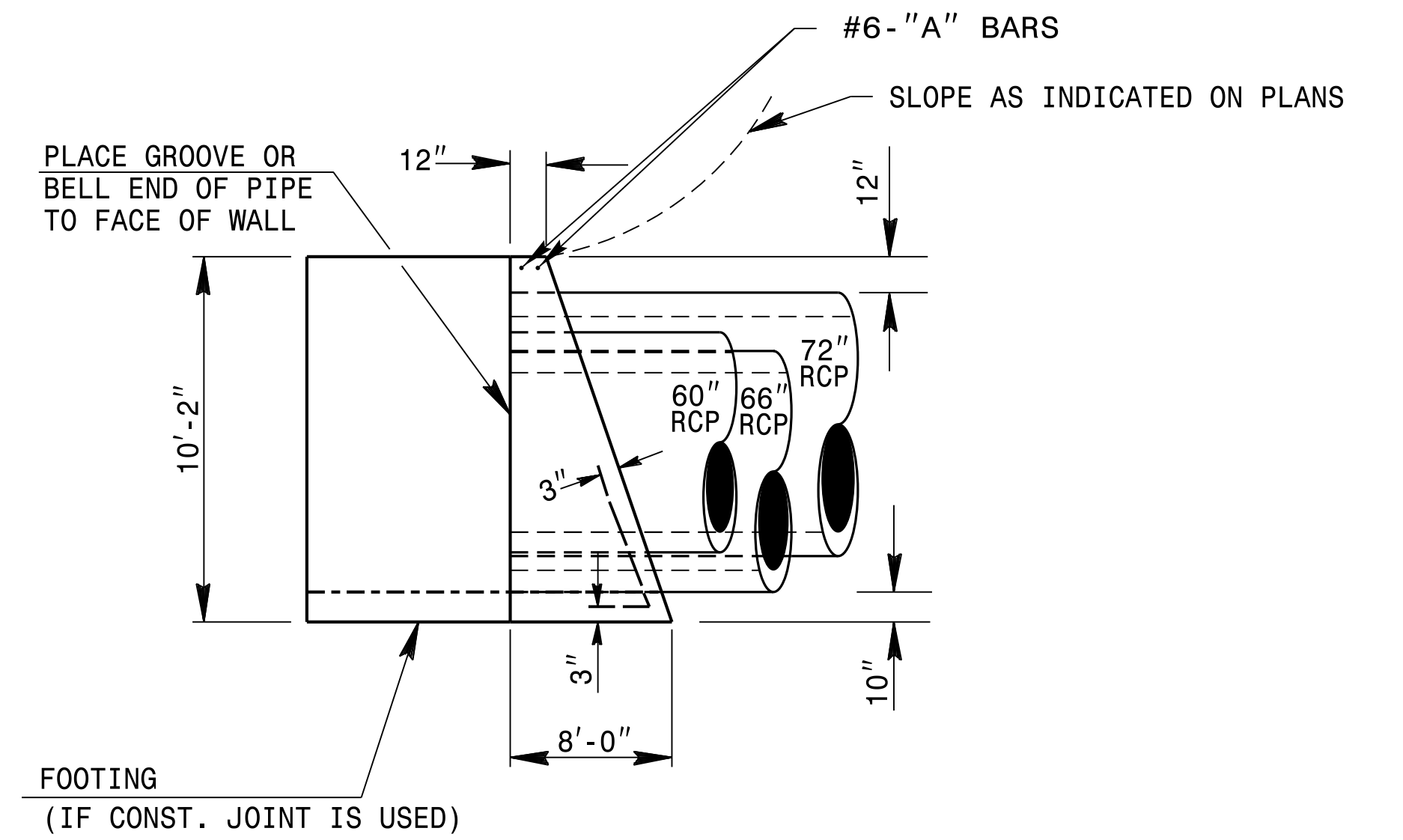
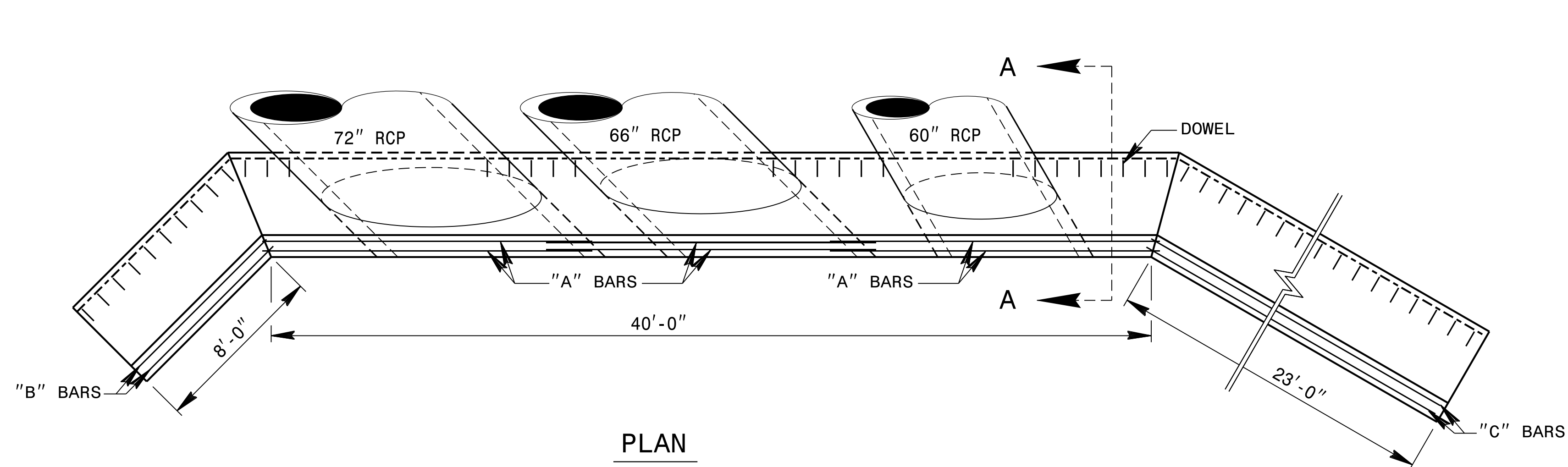
CONTRACTS STANDARDS AND DEVELOPMENT UNIT  
Office 919-707-6950 FAX 919-250-4119

CONCRETE ENDWALL FOR 3 - 72" RCP, W/ PIPES IN WINGWALLS

ORIGINAL BY: K KEMPF DATE: 05-01-18  
MODIFIED BY: DATE:  
CHECKED BY: DATE:  
FILE SPEC.: kkempf\english\U4405\_endwalls.dgn

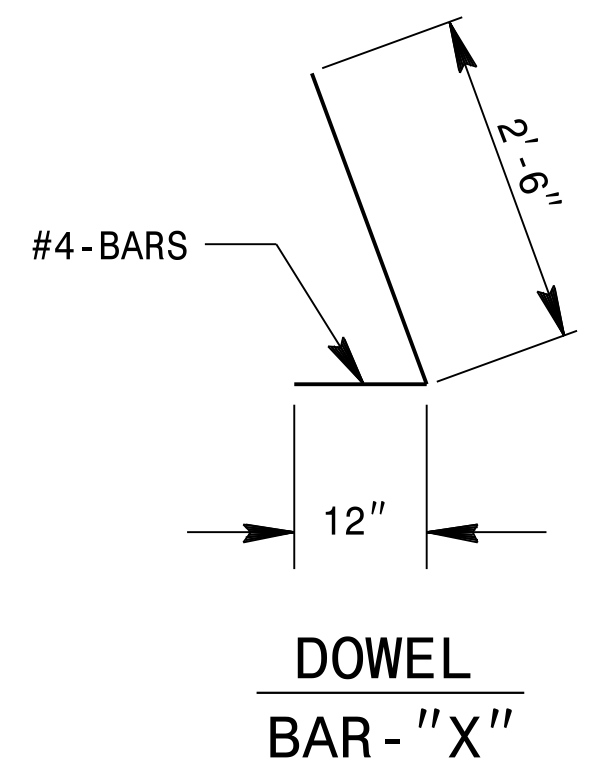


\* NOT TO SCALE



- GENERAL NOTES:
- CHAMFER ALL CORNERS 1".
  - USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE, PLACE BAR 'X' DOWELS IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS IS TO BE APPROXIMATELY 12" CENTERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
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  - REINFORCING STEEL TO BE CUT, BENT OR RELOCATED AS DIRECTED BY THE ENGINEER.
  - FINAL LOCATION OF PIPES TO BE DETERMINED BY THE ENGINEER.
  - SEE SPECIAL DETAIL FOR FENCE INSTALLATION IF REQUIRED BY THE ENGINEER.
  - USE CLASS "B" CONCRETE.

ELEVATION



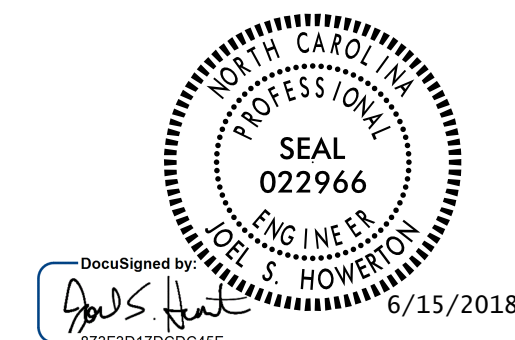
BILL OF MATERIALS				
BAR	QTY	SIZE	LENGTH	WEIGHT
A	6	#6	15'-0"	120
B	2	#6	8'-0"	90
C	2	#6	23'-0"	90
X	63	#4	3'-6"	147
TOTAL REINF. STEEL (lbs.)				447
TOTAL CONC. CU. YDS.				120.3
PIPE DEDUCTIONS CU. YDS.				23.0

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS AND DEVELOPMENT UNIT  
Office 919-707-6950 FAX 919-250-4119

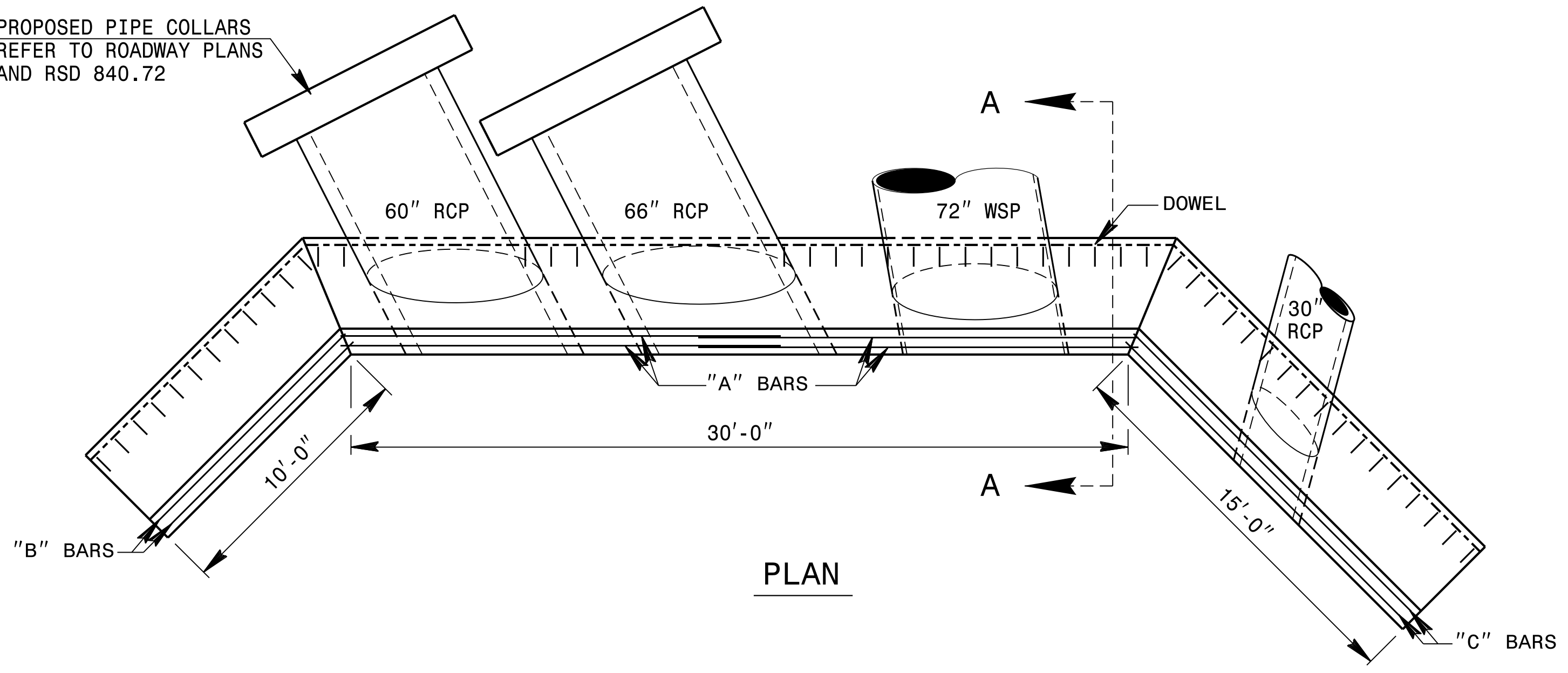
CONCRETE ENDWALL FOR 60" RCP, 66" RCP, 72" WSP, W/ WINGWALL

ORIGINAL BY: K KEMPF DATE: 05-07-18  
MODIFIED BY: DATE:  
CHECKED BY: DATE:  
FILE SPEC.: kkempf\english\U4405\_endwalls.dgn

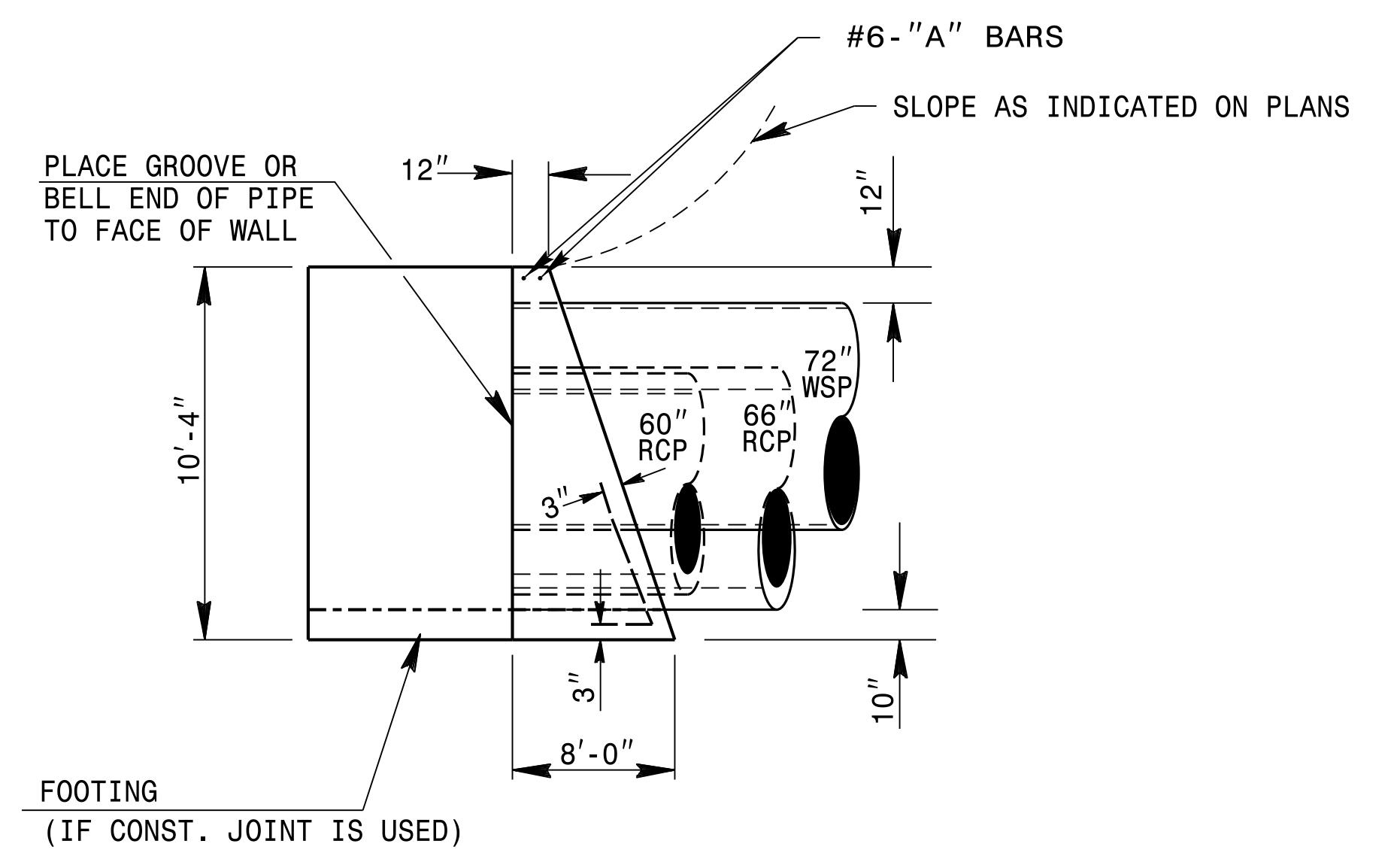


\* NOT TO SCALE

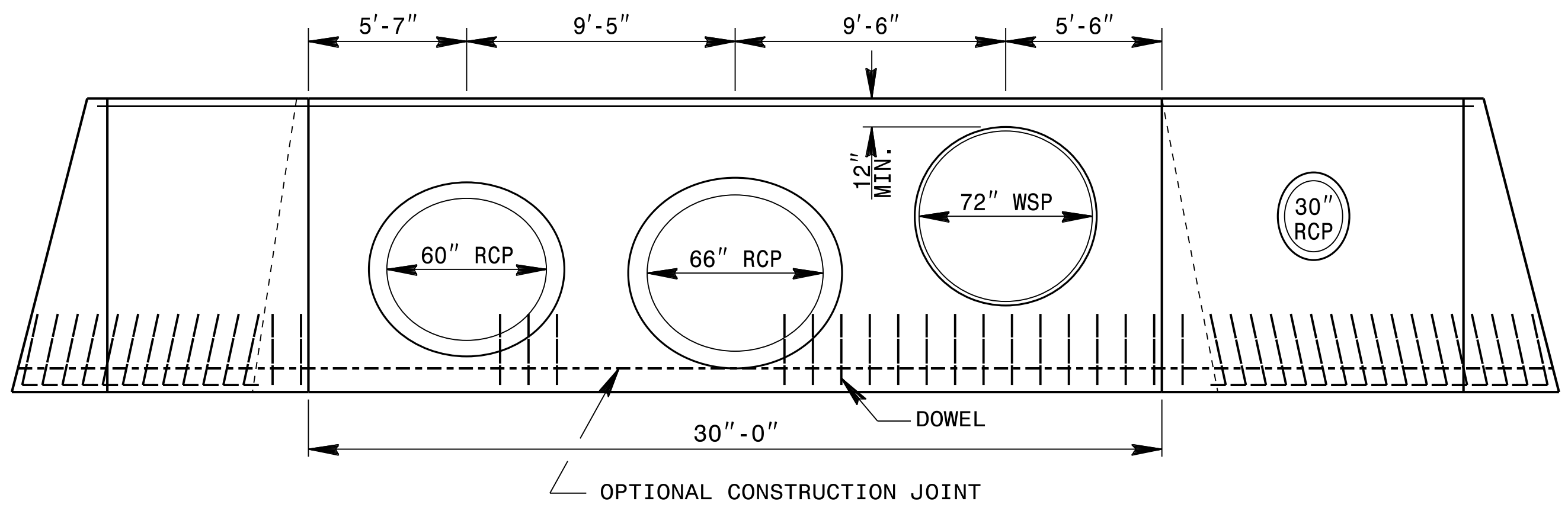
PROPOSED PIPE COLLARS  
REFER TO ROADWAY PLANS  
AND RSD 840.72



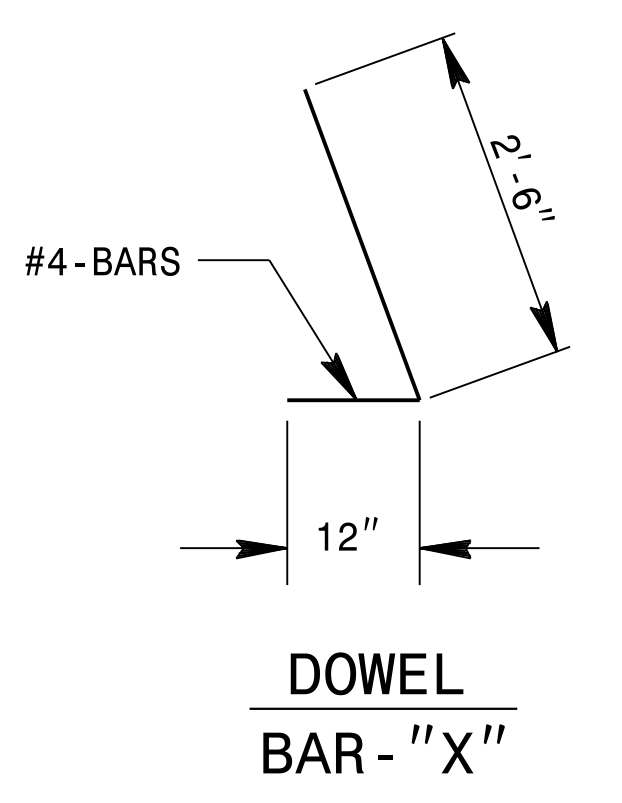
PLAN



'A' SECTION



ELEVATION



DOWEL  
BAR - "X"

- GENERAL NOTES:
- CHAMFER ALL CORNERS 1".
  - USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE, PLACE BAR 'X' DOWELS IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS IS TO BE APPROXIMATELY 12" CENTERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE AND POUR THE BASE SEPARATELY THE POUR SHALL BE LEFT ROUGH.
  - REINFORCING STEEL TO BE CUT, BENT OR RELOCATED AS DIRECTED BY THE ENGINEER.
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  - SEE SPECIAL DETAIL FOR FENCE INSTALLATION IF REQUIRED BY THE ENGINEER.
  - USE CLASS "B" CONCRETE.

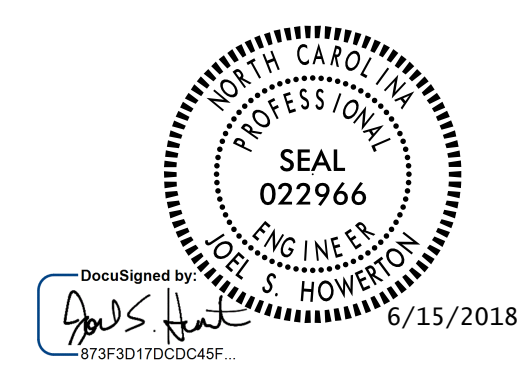
BILL OF MATERIALS				
BAR	QTY	SIZE	LENGTH	WEIGHT
A	4	#6	17'-0"	102
B	2	#6	10'-2"	31
C	2	#6	15'-2"	46
X	49	#4	3'-6"	115
TOTAL REINF. STEEL (lbs.)				294
TOTAL CONC. CU. YDS.				94.7
PIPE DEDUCTIONS CU. YDS.				13.4

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

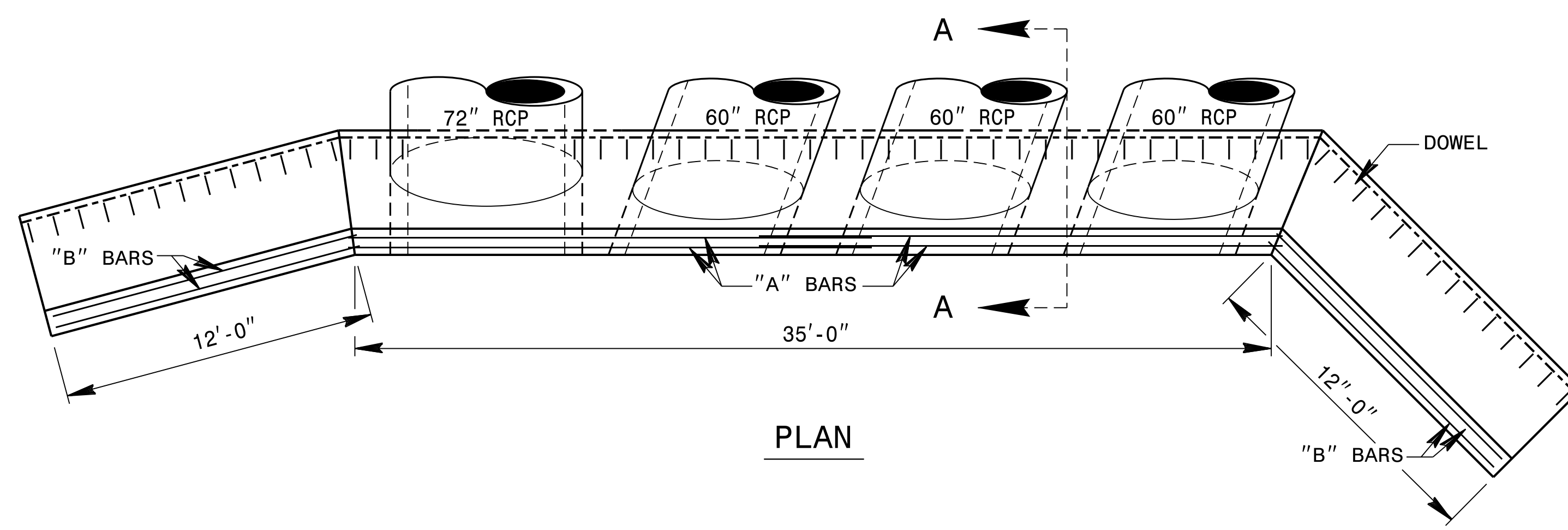
**CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**CONCRETE ENDWALL FOR  
60" RCP, 66" RCP, 72" WSP,  
W/ PIPE IN WINGWALL**

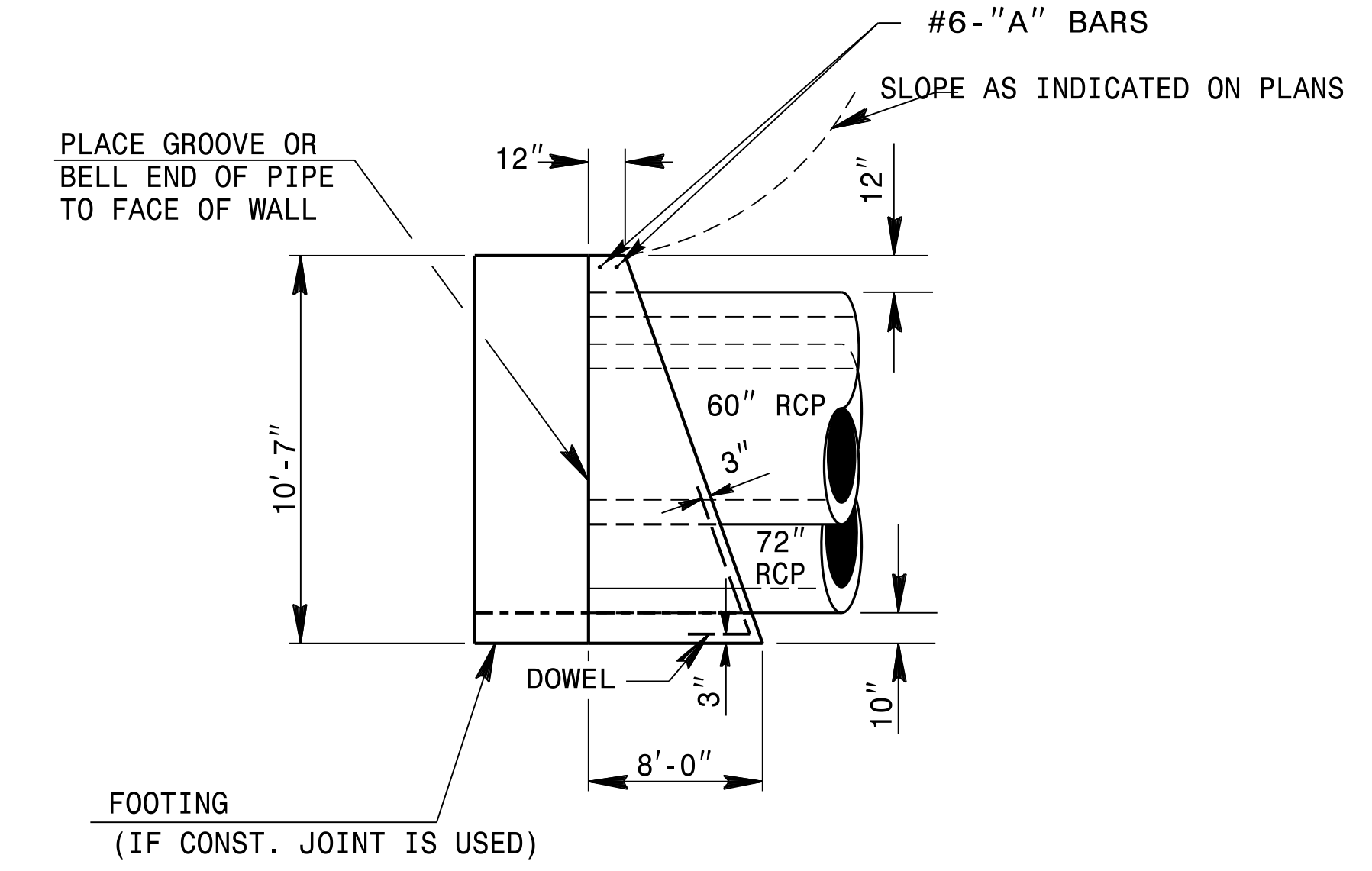
ORIGINAL BY: K KEMPF DATE: 05-08-18  
 MODIFIED BY: DATE:  
 CHECKED BY: DATE:  
 FILE SPEC.: kkempfe\english\U4405\_endwalls.dgn



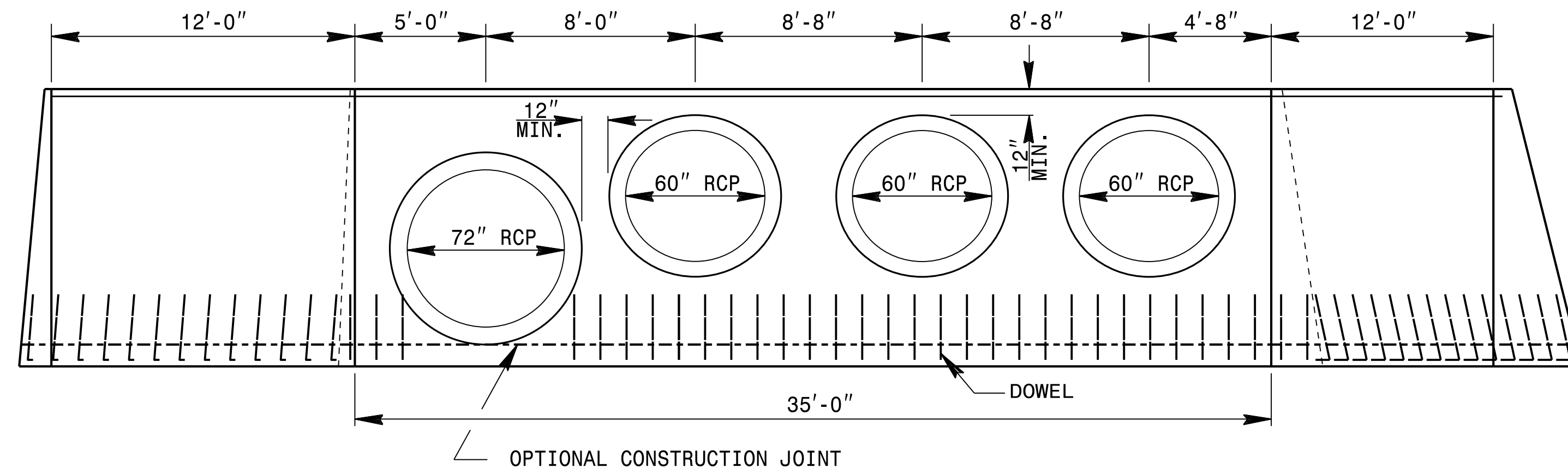
\* NOT TO SCALE



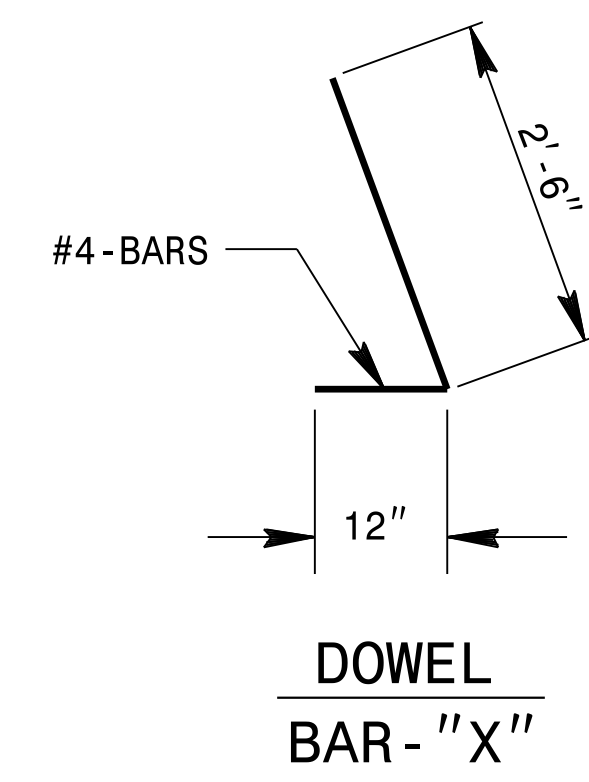
PLAN



'A' SECTION



ELEVATION



DOWEL BAR - "X"

- GENERAL NOTES:
- CHAMFER ALL CORNERS 1".
  - USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE, PLACE BAR "X" DOWELS IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS IS TO BE APPROXIMATELY 12" CENTERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE AND POUR THE BASE SEPARATELY THE POUR SHALL BE LEFT ROUGH.
  - REINFORCING STEEL TO BE CUT, BENT OR RELOCATED AS DIRECTED BY THE ENGINEER.
  - FINAL LOCATION OF PIPES TO BE DETERMINED BY THE ENGINEER.
  - SEE SPECIAL DETAIL FOR FENCE INSTALLATION IF REQUIRED BY THE ENGINEER.
  - USE CLASS "B" CONCRETE.

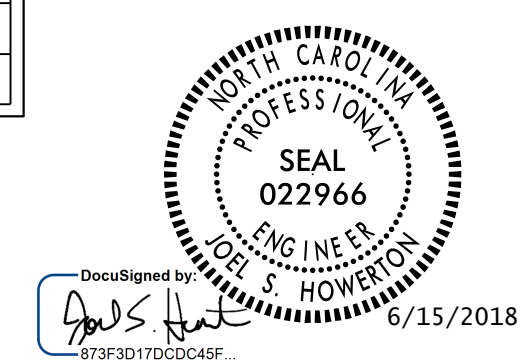
BILL OF MATERIALS				
BAR	QTY	SIZE	LENGTH	WEIGHT
A	4	#6	20'-0"	120
B	4	#6	12'-2"	73
X	59	#4	3'-6"	138
TOTAL REINF. STEEL (lbs.)				331
TOTAL CONC. CU. YDS.				103.3
PIPE DEDUCTIONS CU. YDS.				14.7

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS AND DEVELOPMENT UNIT  
Office 919-707-6950 FAX 919-250-4119

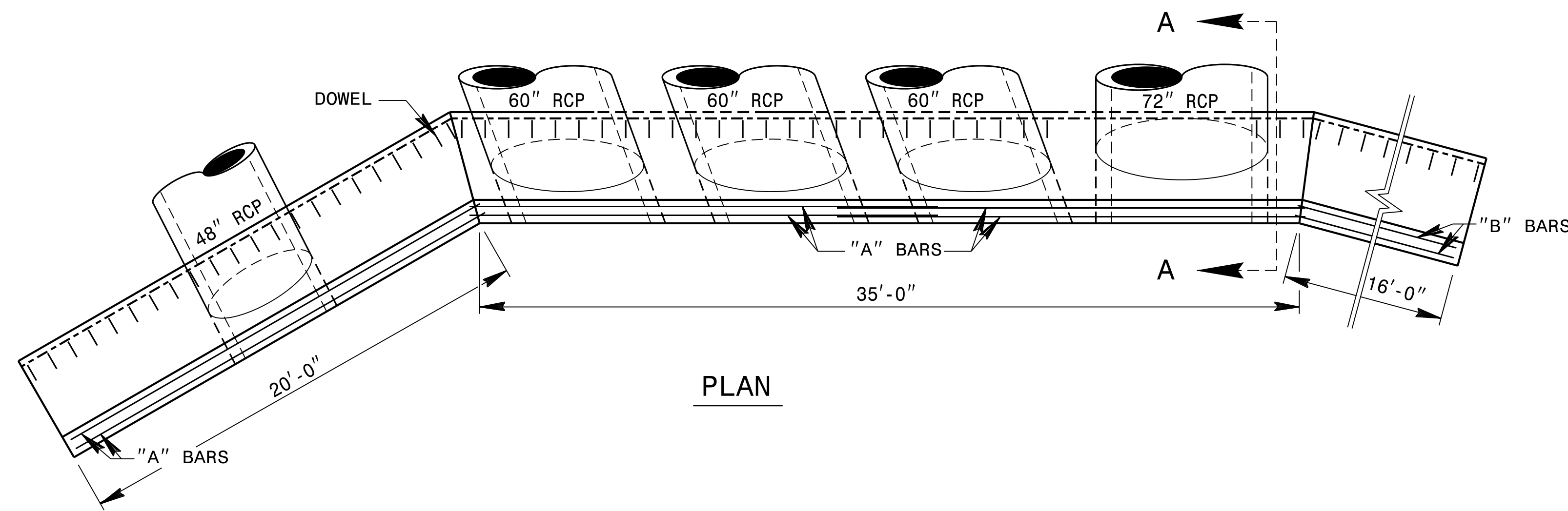
CONCRETE ENDWALL FOR 3 - 60" RCP, 72" RCP W/ WINGWALLS

ORIGINAL BY: K KEMPF DATE: 05-10-18  
MODIFIED BY: DATE:  
CHECKED BY: DATE:  
FILE SPEC.: kkempf\english\U4405\_endwalls.dgn

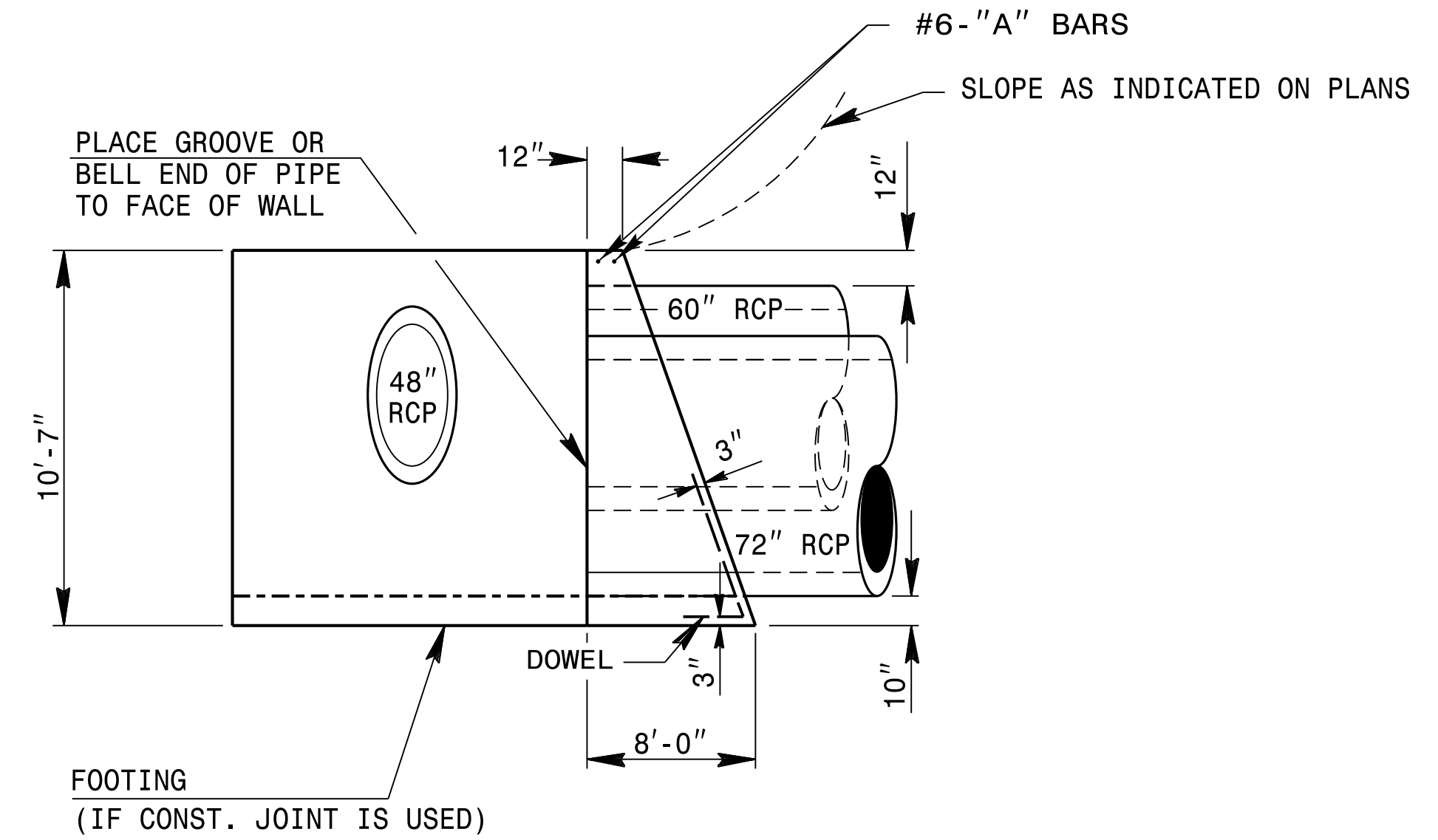




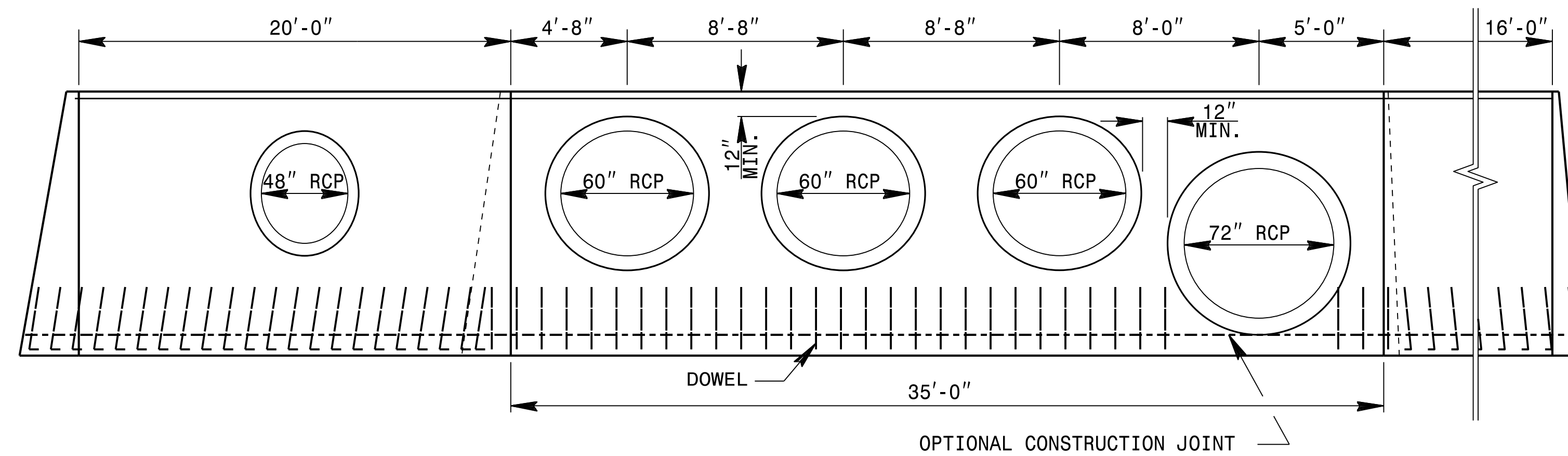
\* NOT TO SCALE



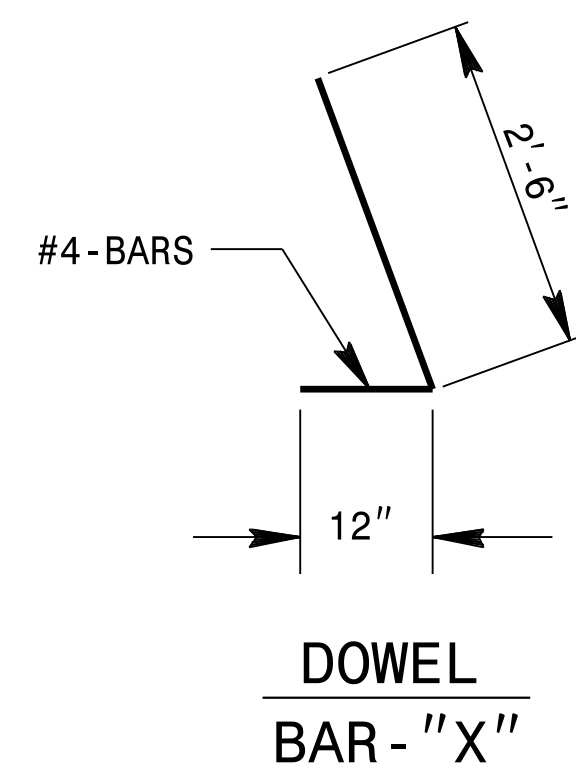
PLAN



'A' SECTION



ELEVATION



DOWEL  
BAR - "X"

- GENERAL NOTES:
- CHAMFER ALL CORNERS 1".
  - USE FORMS TO CONSTRUCT THE BOTTOM SLAB.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE, PLACE BAR "X" DOWELS IN THE BASE AS SHOWN ON PLANS. SPACING OF BARS IS TO BE APPROXIMATELY 12" CENTERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
  - WHEN THE CONTRACTOR ELECTS TO USE A CONSTRUCTION JOINT AT THE BOTTOM OF THE PIPE AND POUR THE BASE SEPARATELY THE POUR SHALL BE LEFT ROUGH.
  - REINFORCING STEEL TO BE CUT, BENT OR RELOCATED AS DIRECTED BY THE ENGINEER.
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  - SEE SPECIAL DETAIL FOR FENCE INSTALLATION IF REQUIRED BY THE ENGINEER.
  - USE CLASS "B" CONCRETE.

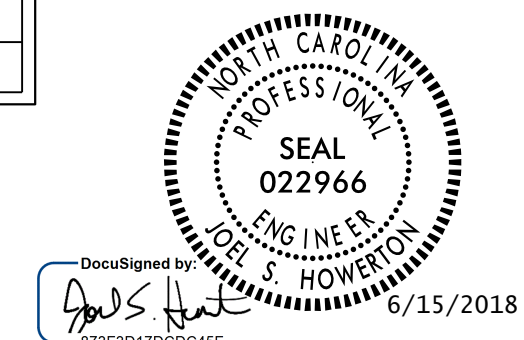
BILL OF MATERIALS				
BAR	QTY	SIZE	LENGTH	WEIGHT
A	6	#6	20'-0"	180
B	2	#6	16'-2"	49
X	69	#4	3'-6"	161
TOTAL REINF. STEEL (lbs.)				390
TOTAL CONC. CU. YDS.				124.3
PIPE DEDUCTIONS CU. YDS.				16.3

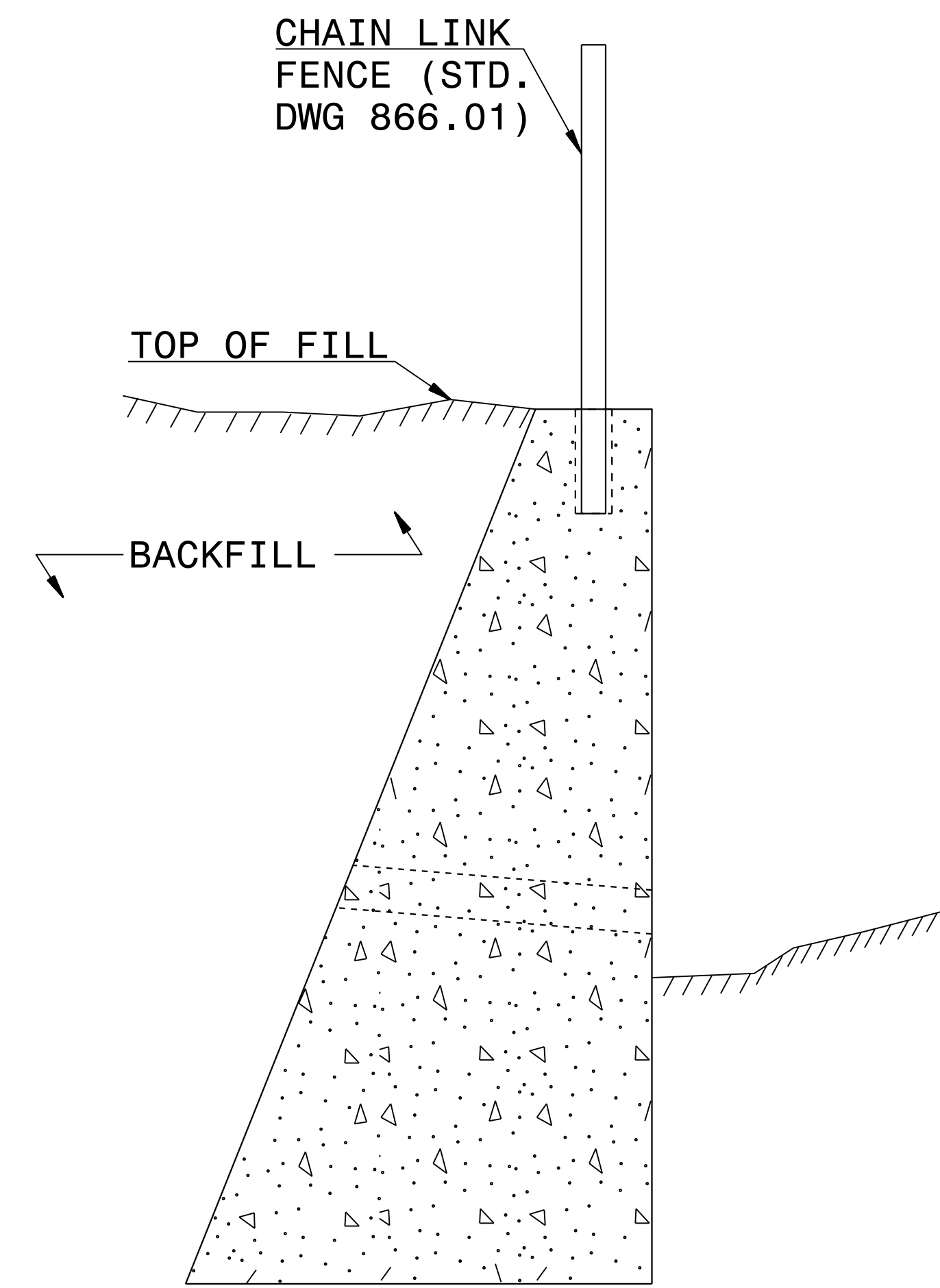
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT  
Office 919-707-6950 FAX 919-250-4119

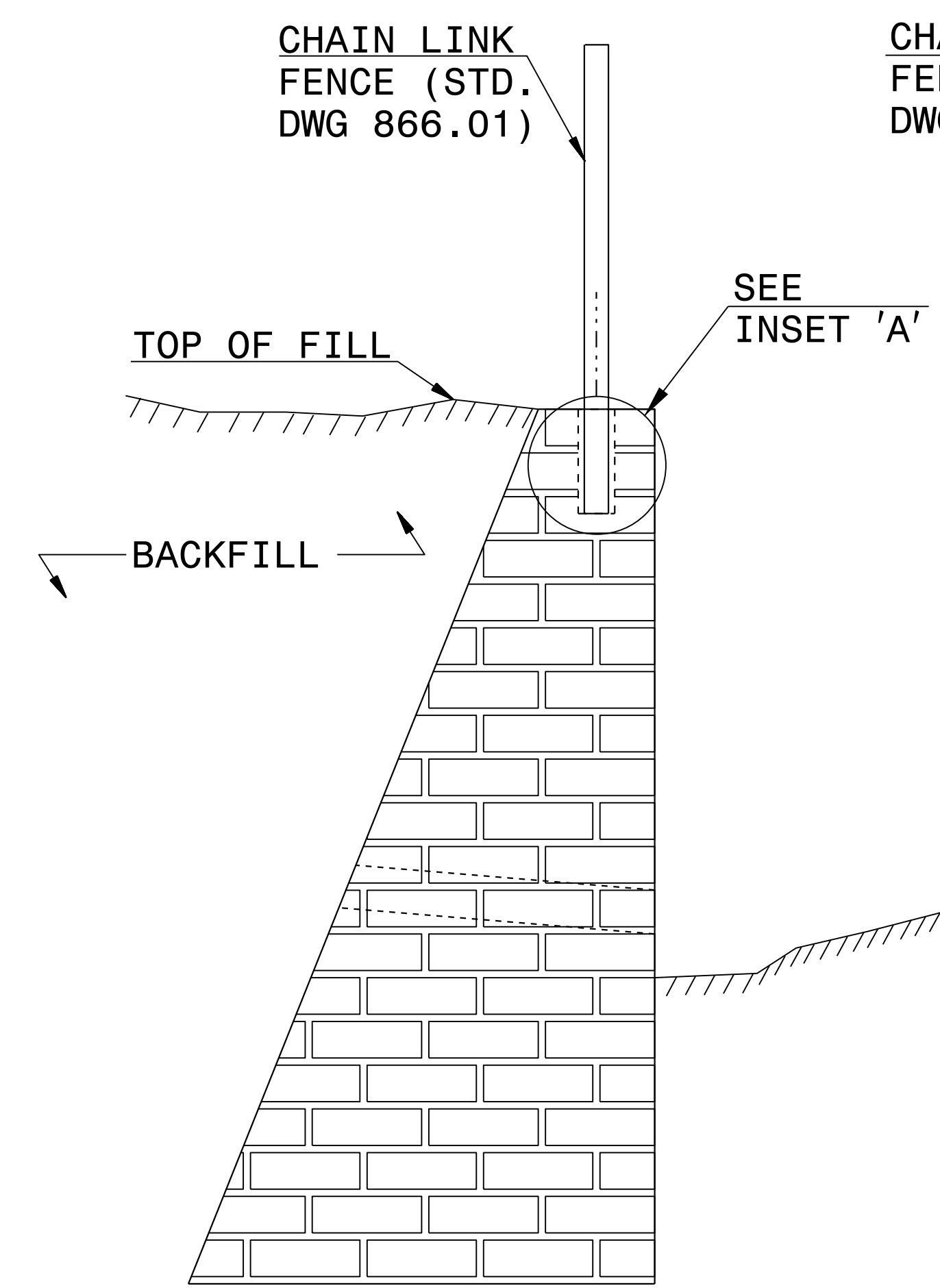
CONCRETE ENDWALL FOR  
3 - 60" RCP, 72" RCP  
W/ 48" RCP IN WINGWALL

ORIGINAL BY: K KEMPF DATE: 05-11-18  
 MODIFIED BY: DATE:  
 CHECKED BY: DATE:  
 FILE SPEC.: kkempfe\english\U4405\_endwall1s.dgn

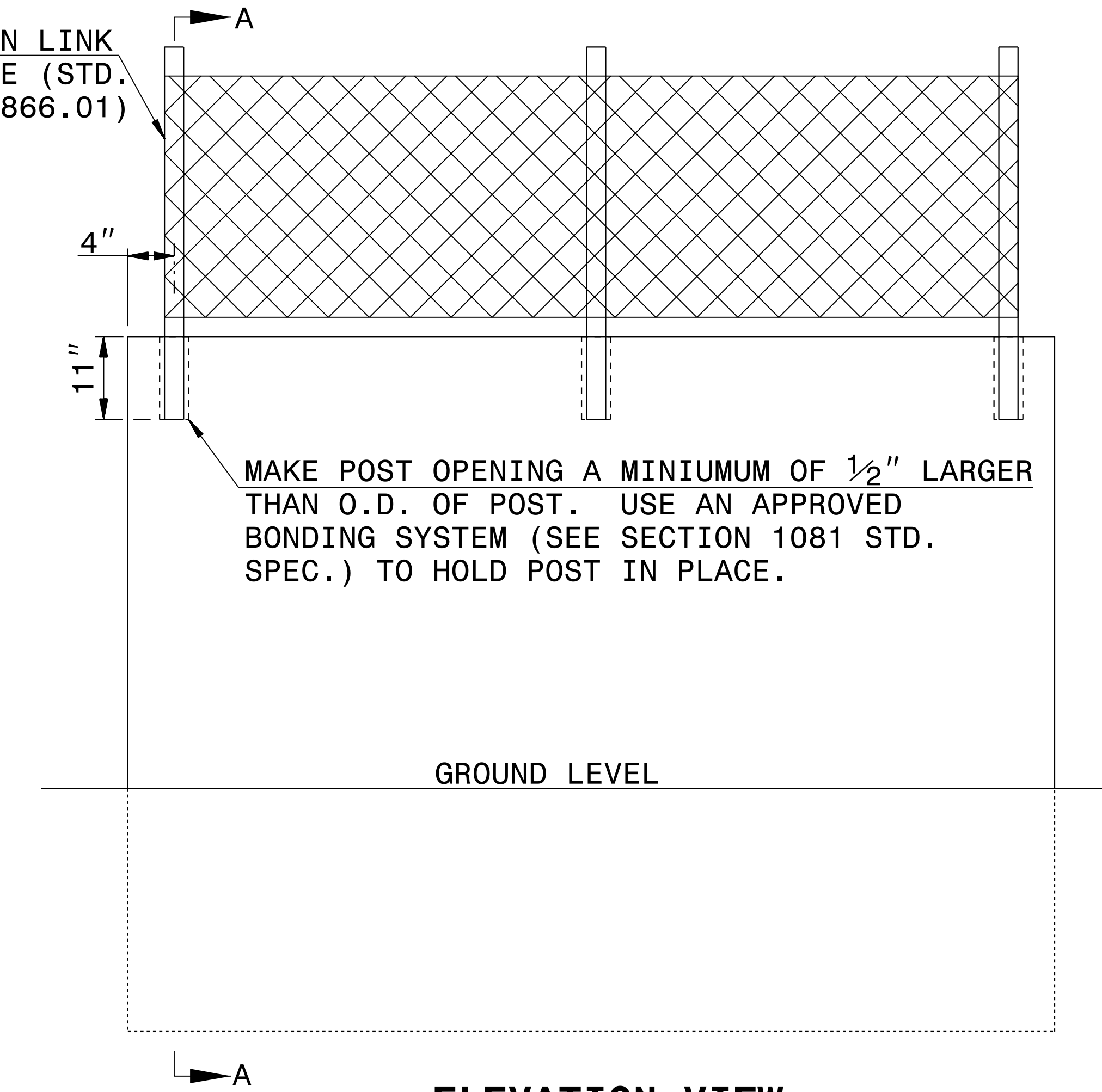




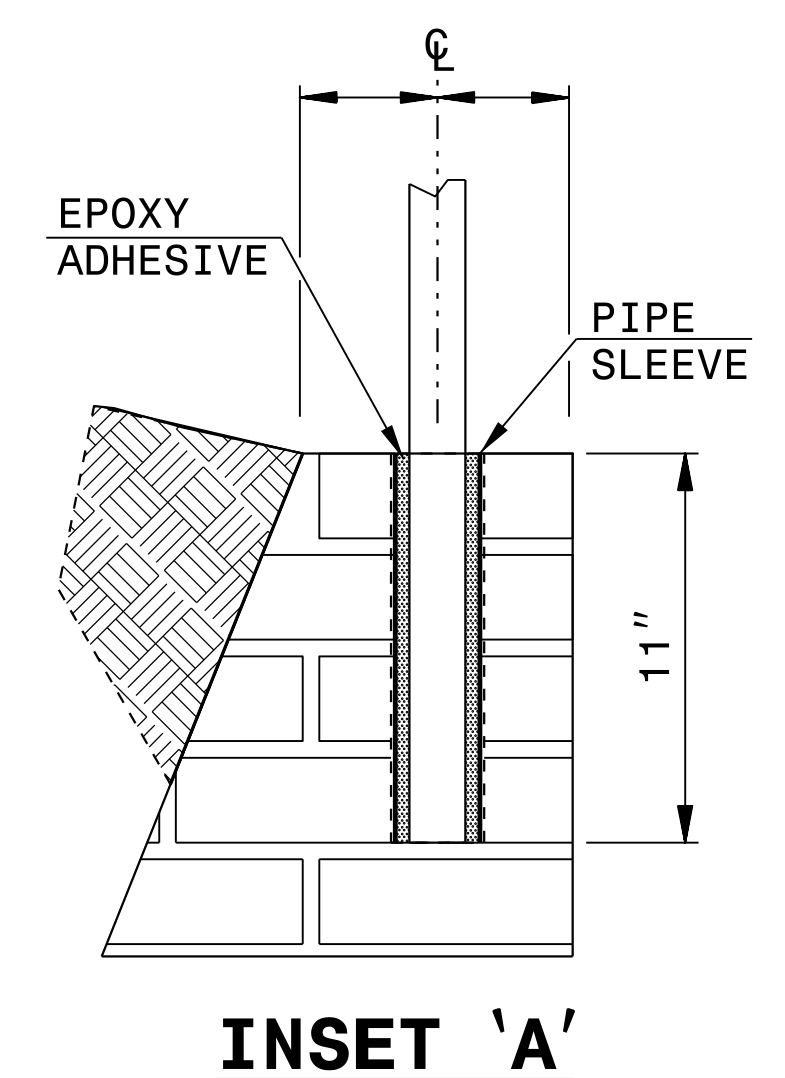
**SECTION A-A  
CONCRETE RETAINING WALL**



**SECTION A-A  
BRICK MASONRY RETAINING WALL**



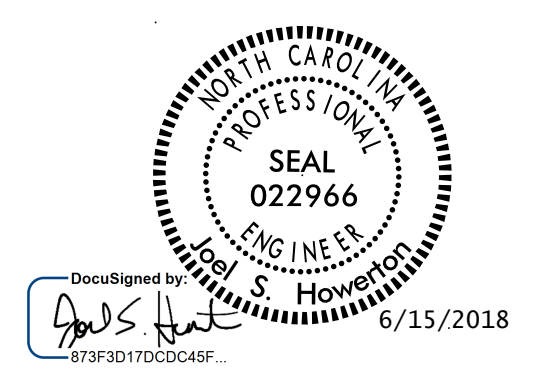
**ELEVATION VIEW  
OF RETAINING WALL**



**INSET 'A'**

**GENERAL NOTES:**

EMBED CHAIN LINK FENCE 11" INTO PROPOSED WALL IN A SLEEVE OR BLOCKOUT WITH EPOXY OR CONCRETE GROUT ANCHORING SYSTEM. PRE-MEASURE AND CENTER THE PROPOSED FENCE ON TOP OF WALL FOR POST SPACINGS. IF DRILLING THE HOLES FOR POSTS, USE A ROTARY DRILL TO DRILL HOLES IN THE CONCRETE. NO IMPACT DRILLS WILL BE ALLOWED, TO ELIMINATE ANY POSSIBILITY OF STRUCTURAL DAMAGES TO THE PROPOSED WALL.  
INSTALL PIPE SLEEVES IN THE BRICK RETAINING WALL (SEE INSET 'A') AND REFER TO STD. SPECIFICATION 1081 FOR PROPER ANCHOR SYSTEM.



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

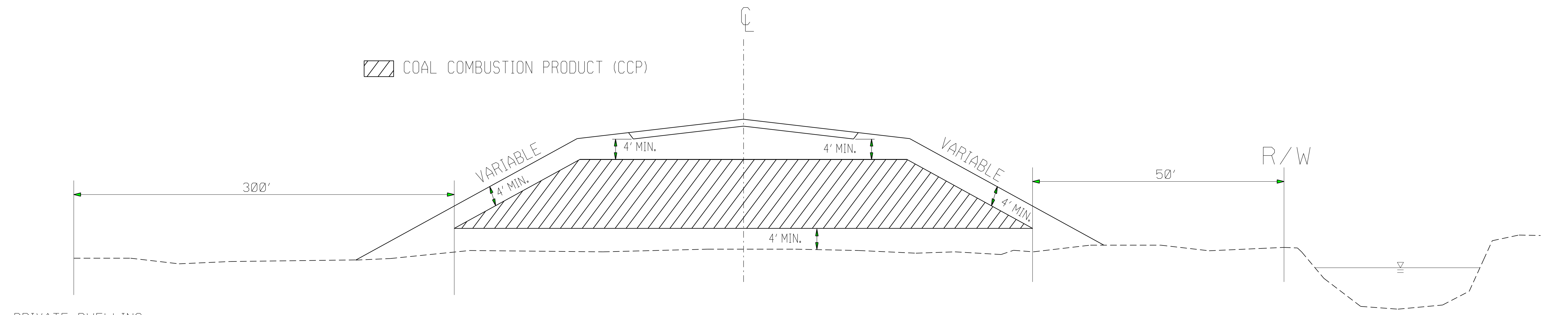
**CONTRACT STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**CHAIN LINK FENCE  
ON RETAINING WALL**

ORIGINAL BY: L. Robinson	DATE: Nov. 1996
MODIFIED BY: K. Kempf	DATE: May. 2018
CHECKED BY:	DATE:
FILE SPEC.: details/jhowerton/chain link on retaining wall.dgn	

I:\MAY-2018 4416  
S:\Contracts\Special Details\jhowerton\chain link on retaining wall.dgn  
Kempf AT USD-292596

# COAL COMBUSTION PRODUCT PLACEMENT



PRIVATE DWELLING OR WELL

PERENNIAL STREAM, OTHER SURFACE WATER BODY OR \*WETLAND

\*(OBTAIN PERMISSION FROM ARMY CORPS OF ENGINEERS)

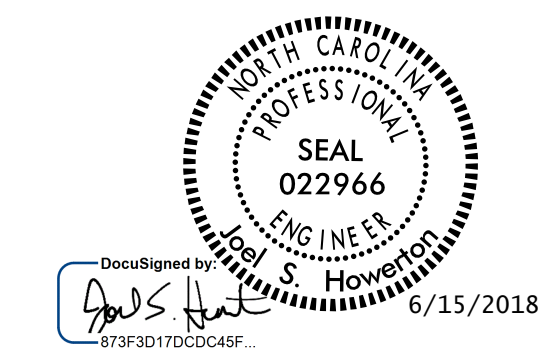
PLACE CCP IN HATCHED AREA IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS

PLACE CCP A MINIMUM OF 5' ABOVE SEASONAL HIGH GROUND WATER

PLACE AT LOCATIONS AS APPROVED BY THE ENGINEER

PLACE SOIL BORROW MATERIAL ON THE OUTSIDE OF CCP AS EACH LIFT OF CCP IS PLACED

J:\MAY-2018 14:34  
 S:\Contractors\Centers\Special Details\Hoverton\Coal Combustion Product Detail.dgn  
 Ktemp AT CS0292596



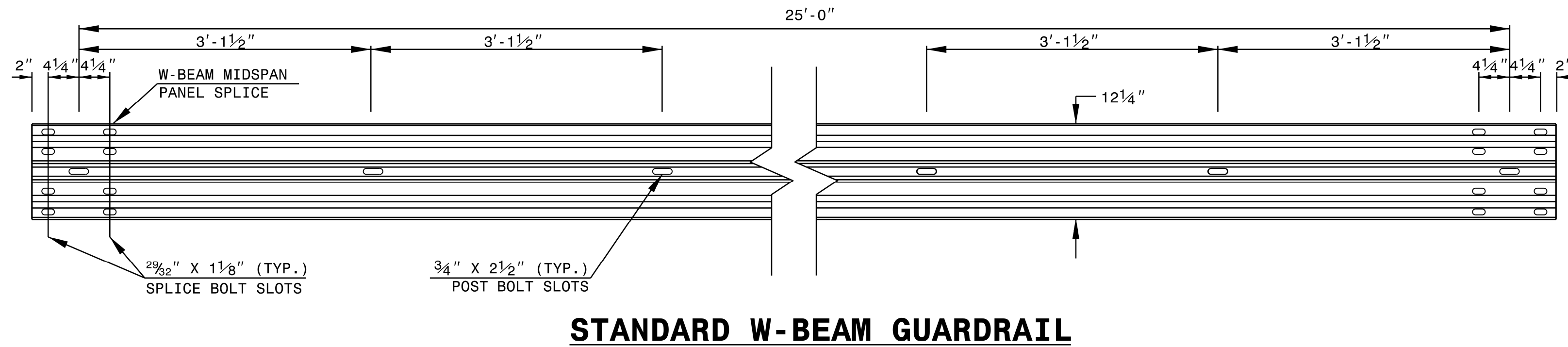
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950 FAX 919-250-4119	
<b>COAL COMBUSTION PRODUCT PLACEMENT DETAIL</b>	
ORIGINAL BY: J.S.H.	DATE: 3/16/15
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: joel/coal combustion material detail.dgn	

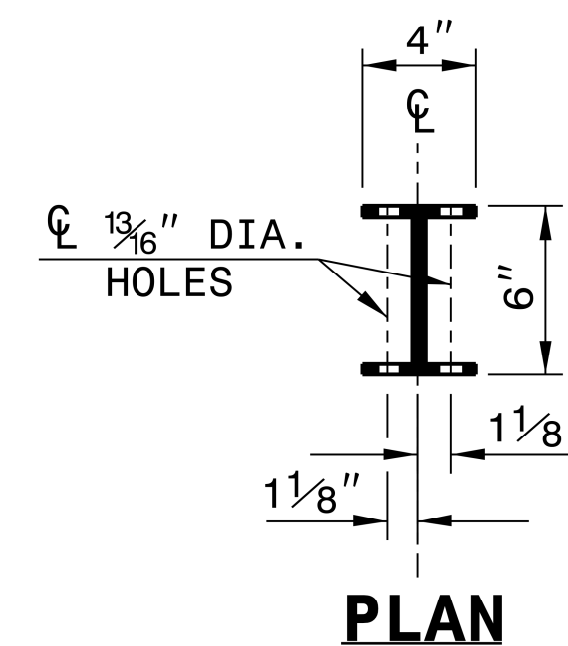
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

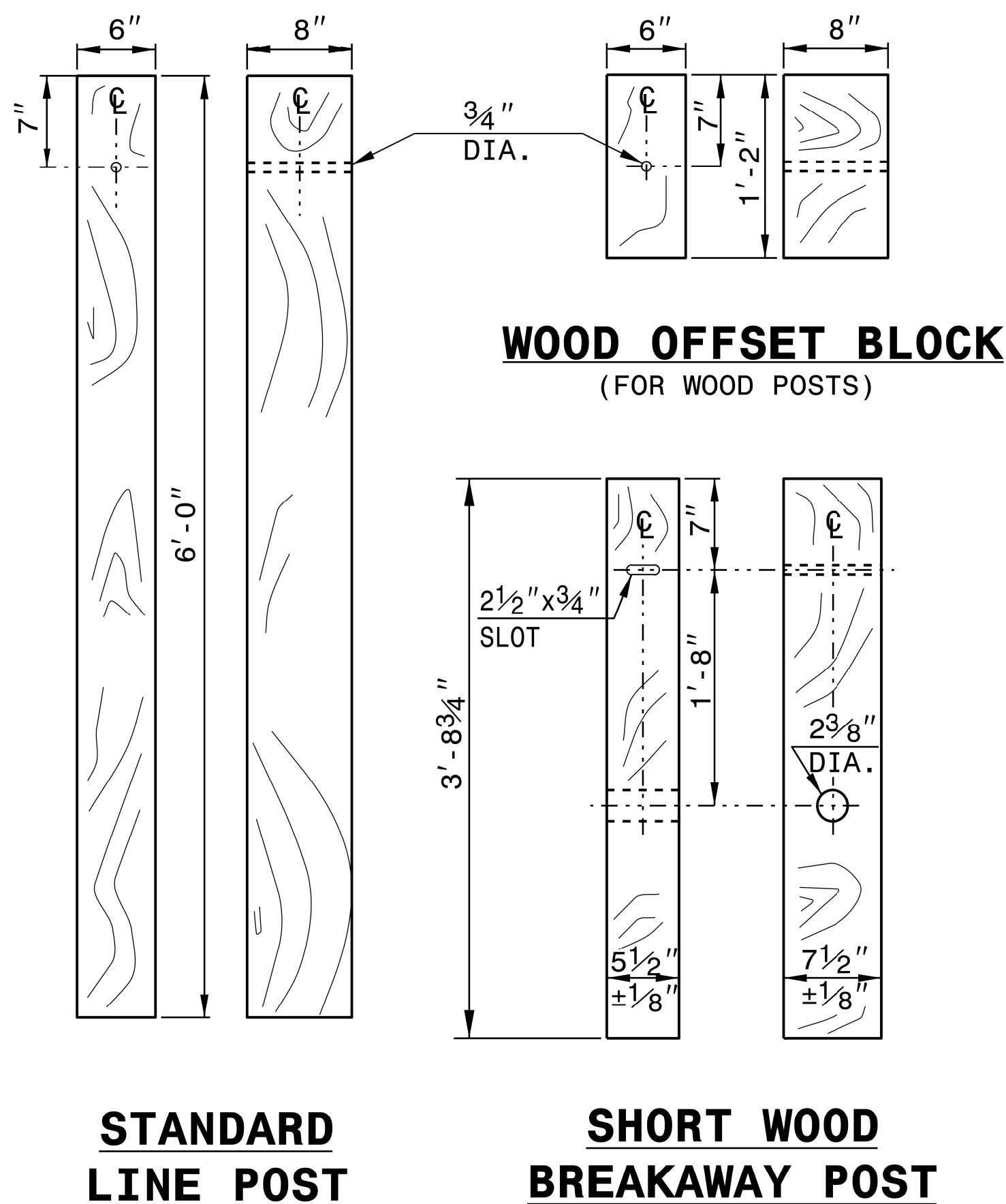
SHEET 6 OF 8  
**862D02**



**STANDARD W-BEAM GUARDRAIL**

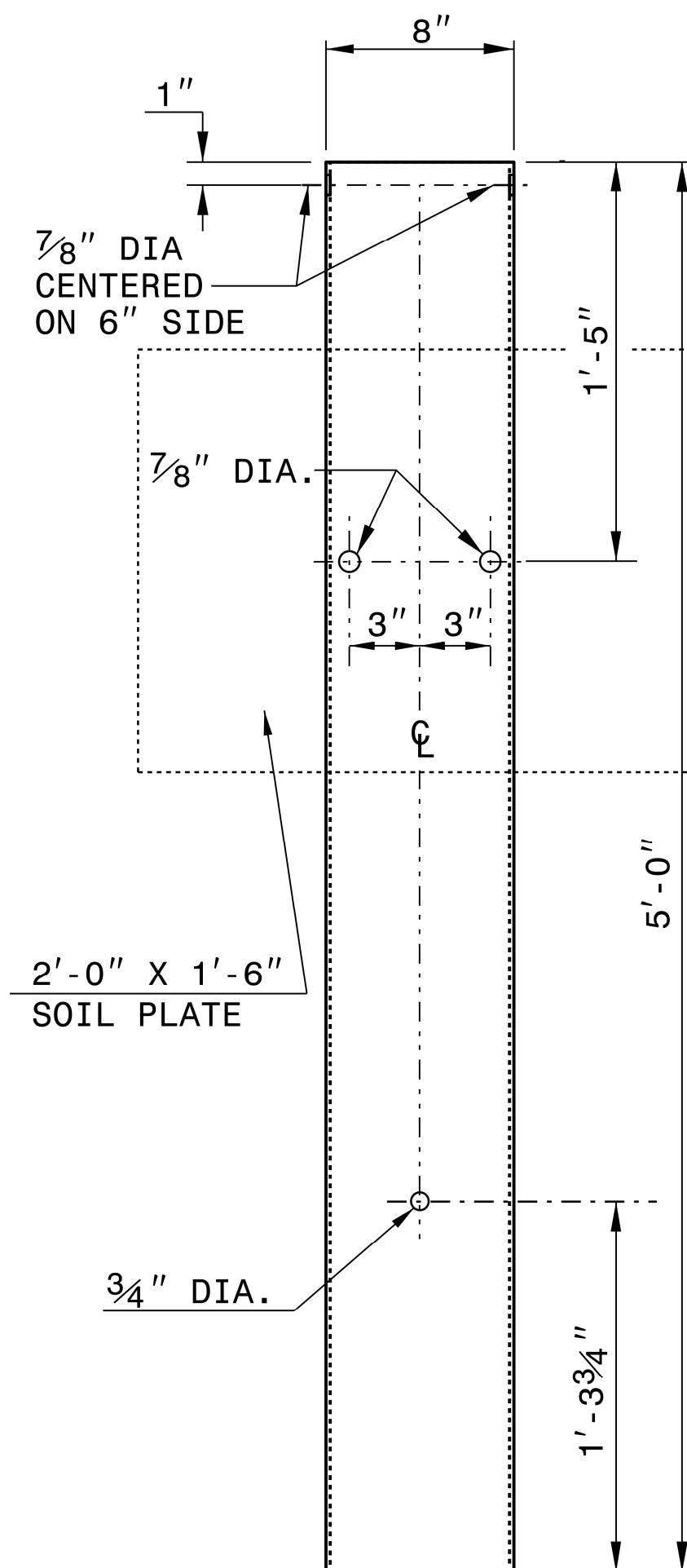


**PLAN**

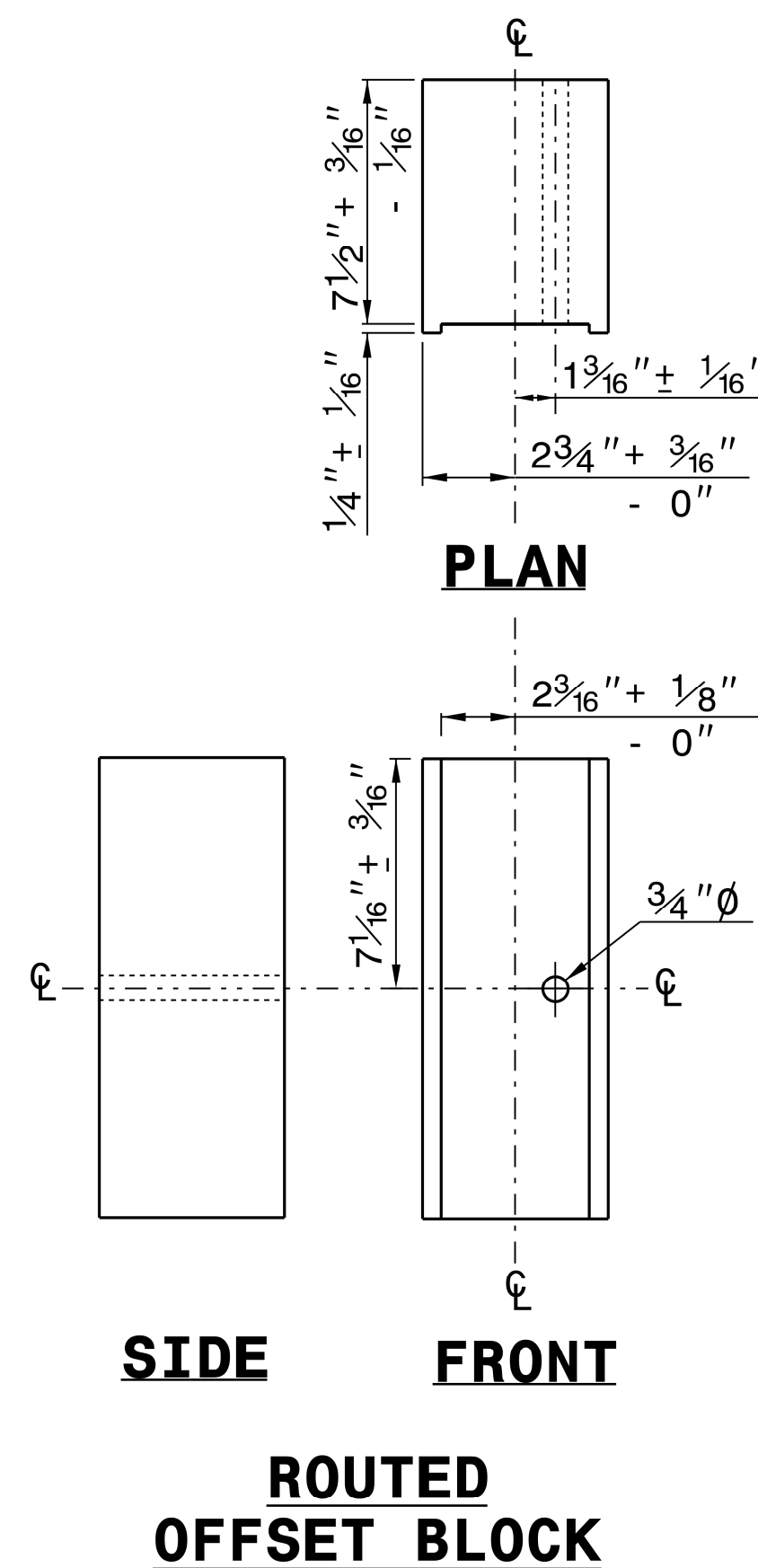


**STANDARD LINE POST**

**SHORT WOOD BREAKAWAY POST**



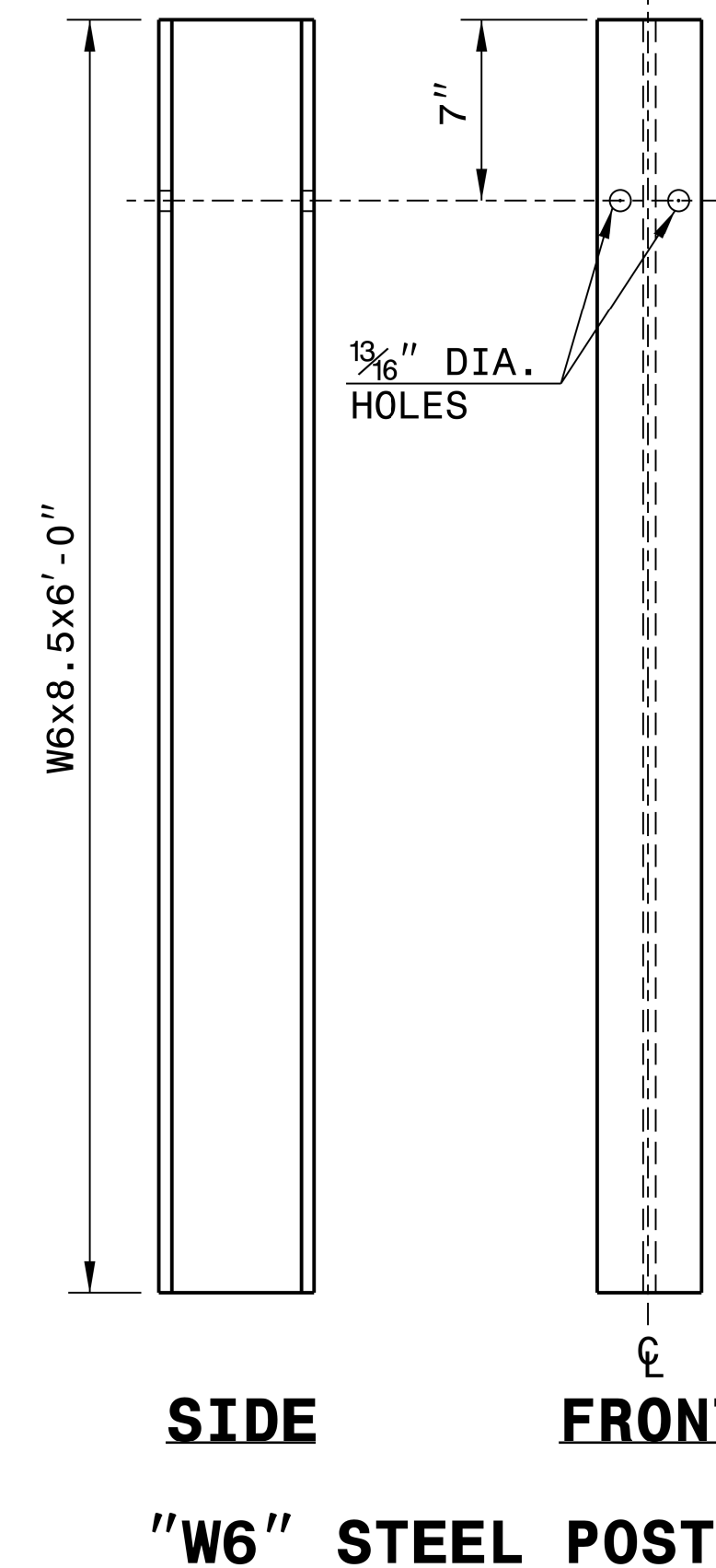
**STEEL TUBE**  
TS 6"x8"x0.1875"



**SIDE**

**FRONT**

**ROUTED OFFSET BLOCK**



**SIDE**

**FRONT**

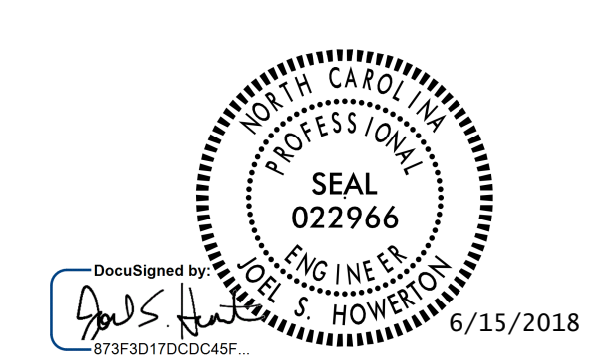
**"W6" STEEL POST**

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

SHEET 6 OF 8  
**862D02**

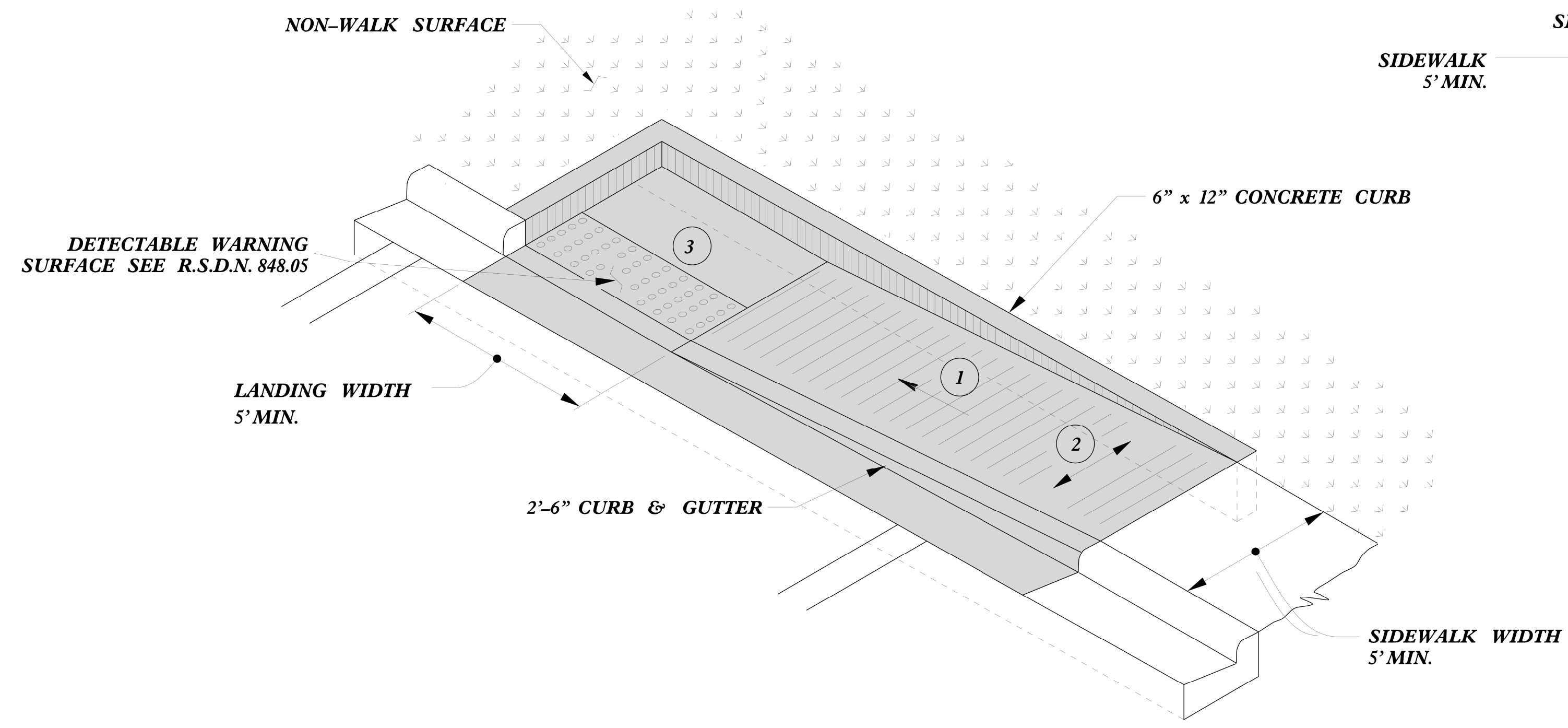
**SYSTEM PARTS**



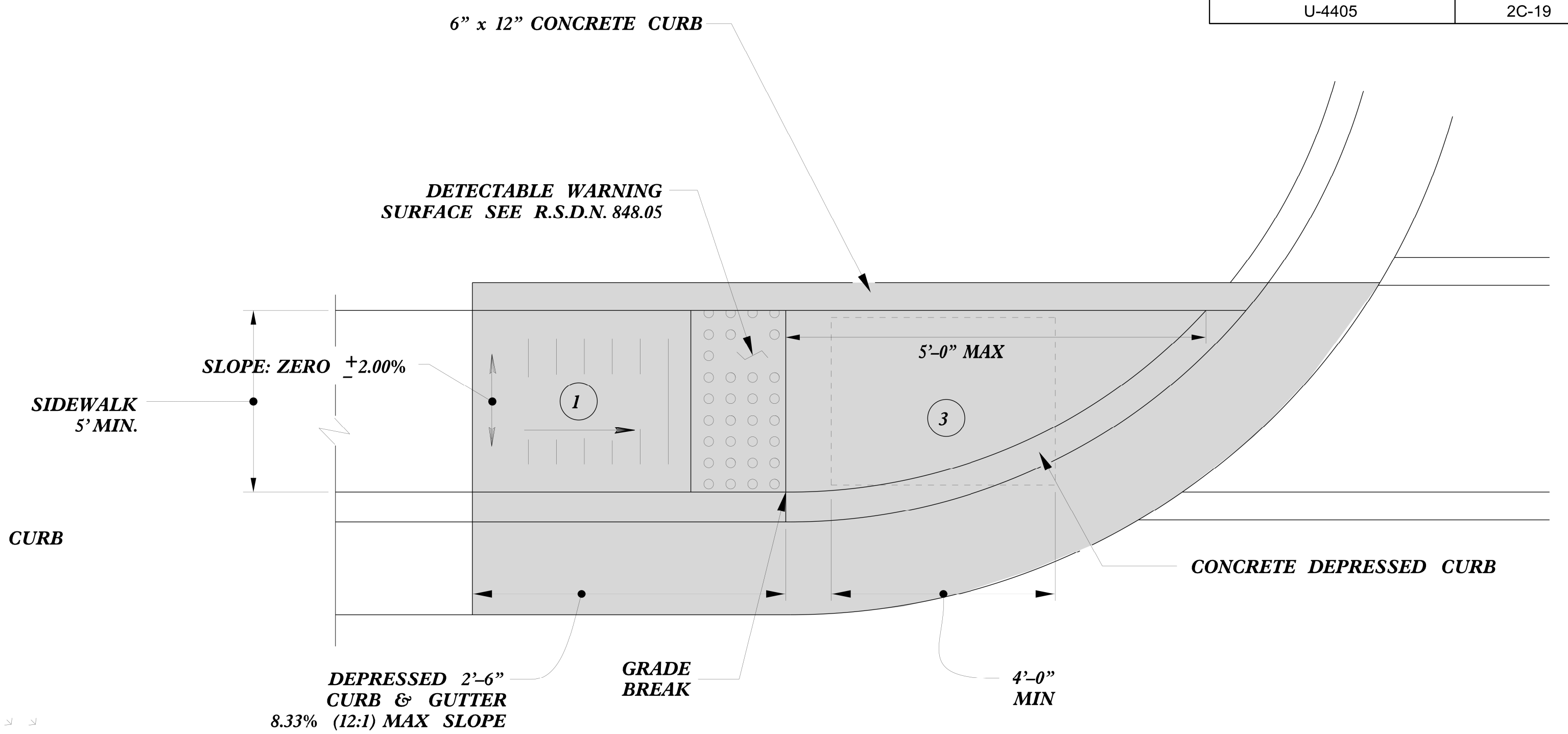
**CONTRACTS STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**SEE TITLE BLOCK**

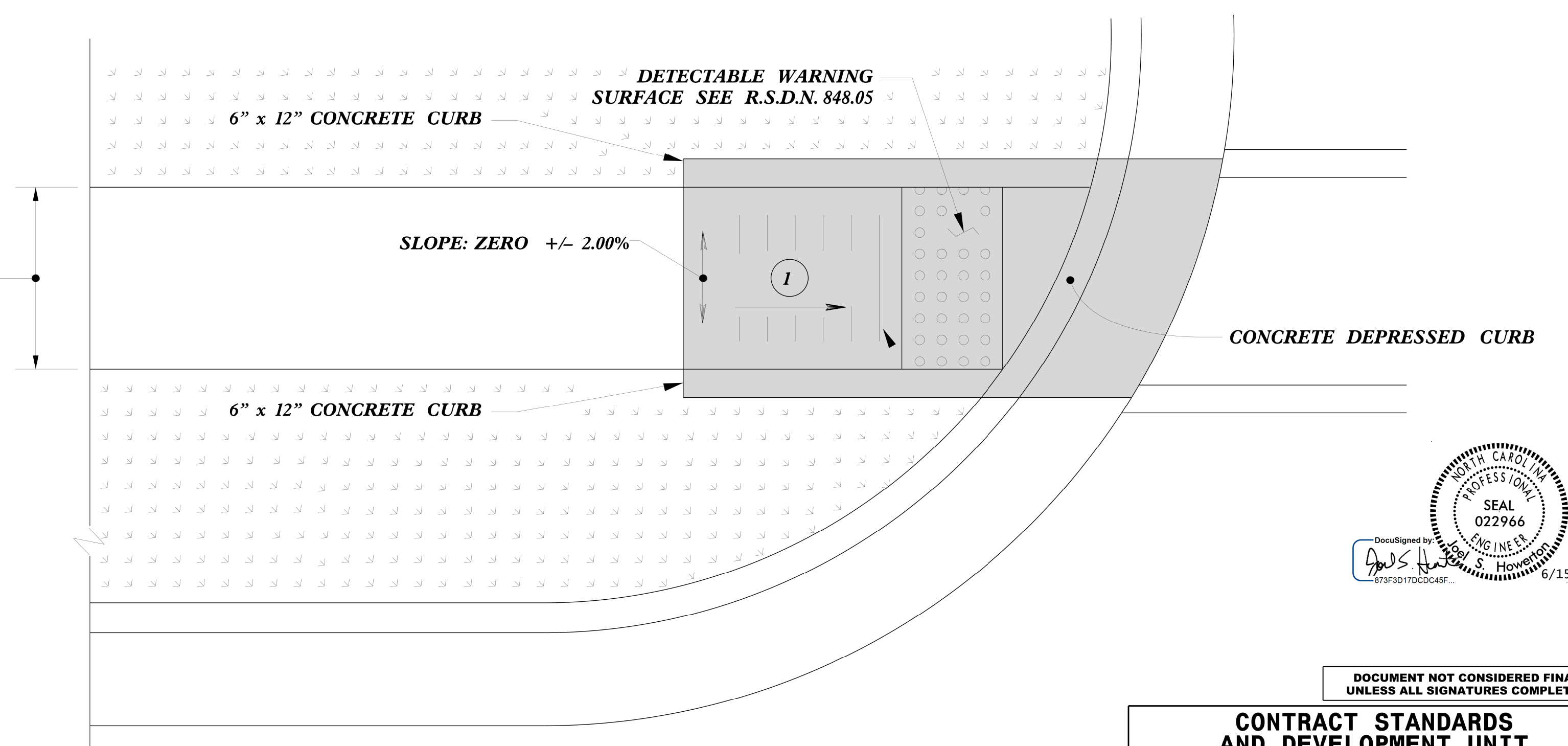
ORIGINAL BY: J. HOWERTON DATE: 3-7-2018  
MODIFIED BY: DATE: \_\_\_\_\_  
CHECKED BY: DATE: \_\_\_\_\_  
FILE SPEC.: \_\_\_\_\_



**TYPE 1A**



**TYPE 1**

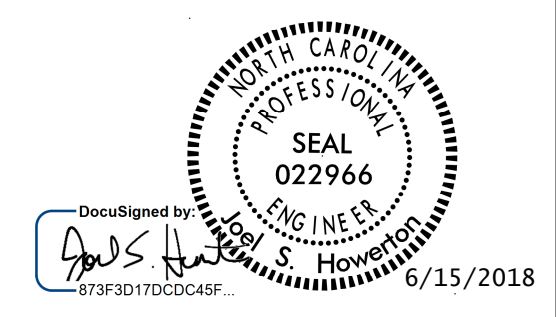


**TYPE 1 Modified**

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR 1 CURB RAMP


REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

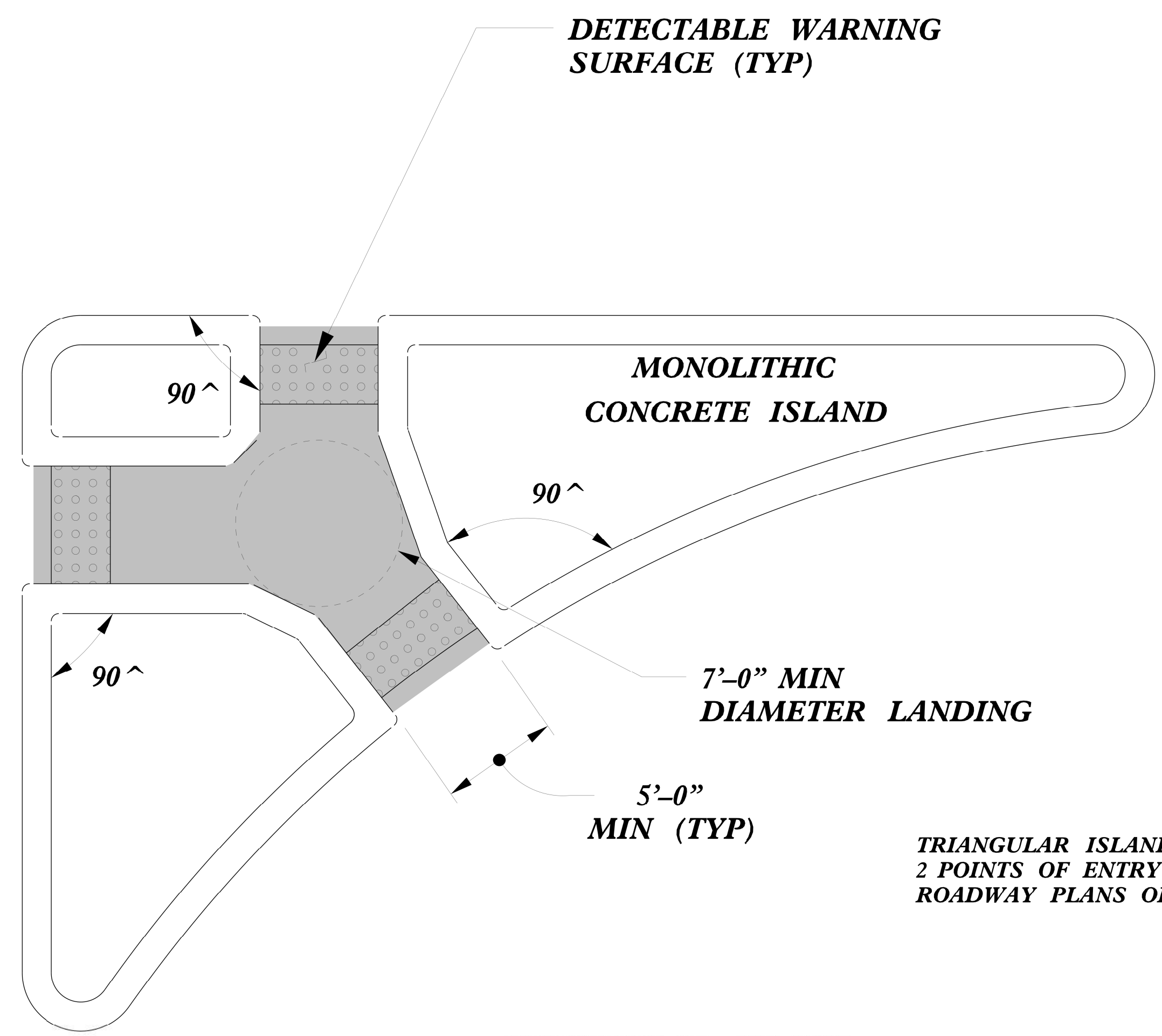


DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>CURB RAMPS</b>	
Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: .stds/2012CurbRamp/CurbRampDetails.dgn	

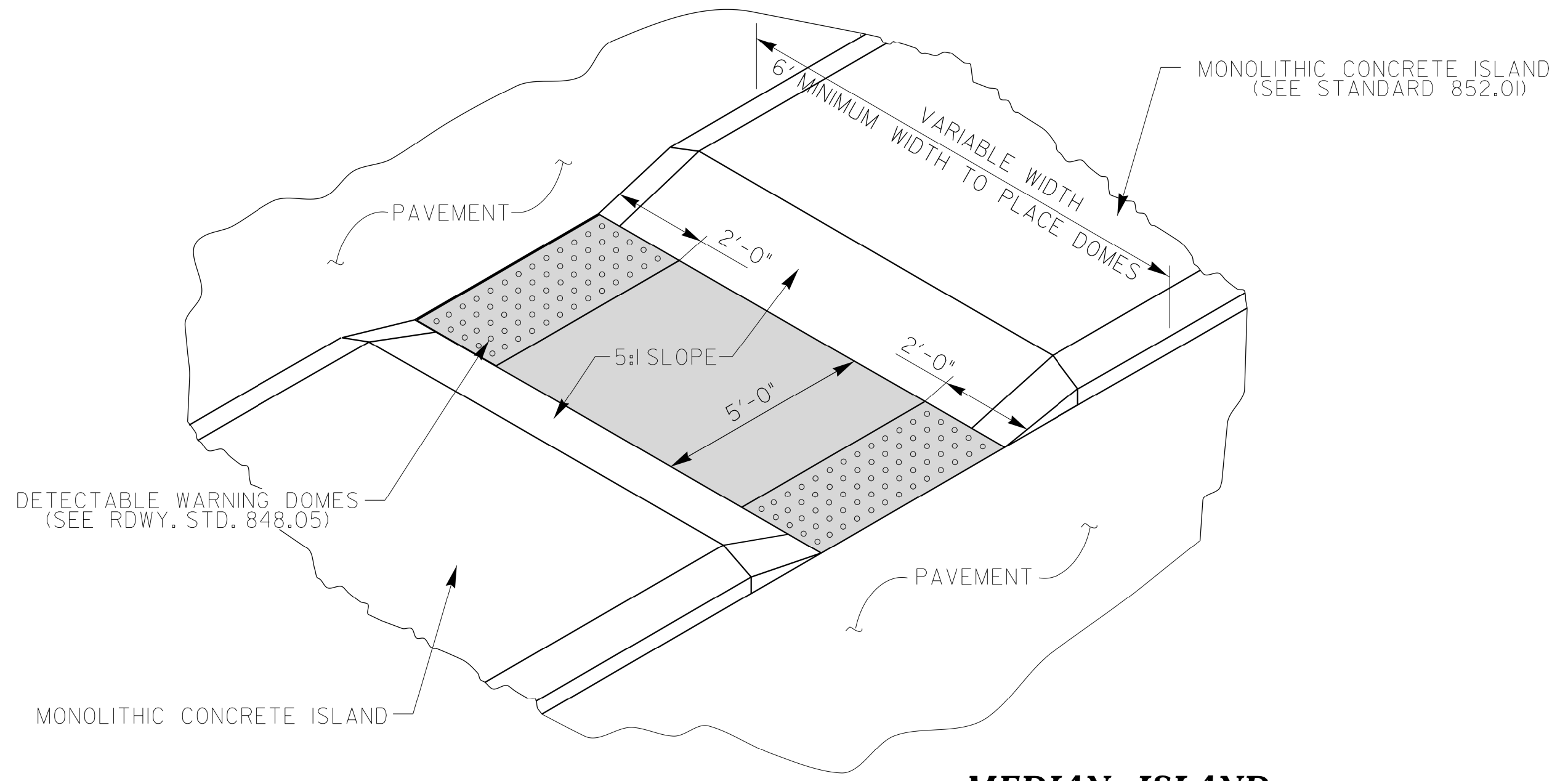
5/14/18 11:58 AM C:\Users\jsho\OneDrive\Documents\2012CurbRamp\CurbRampDetails.dgn

 PAY LIMITS FOR 2 OR 3 CURB RAMPS  
(CALCULATE BASED ON NUMBER OF  
SETS OF TRUNCATED DOMES)

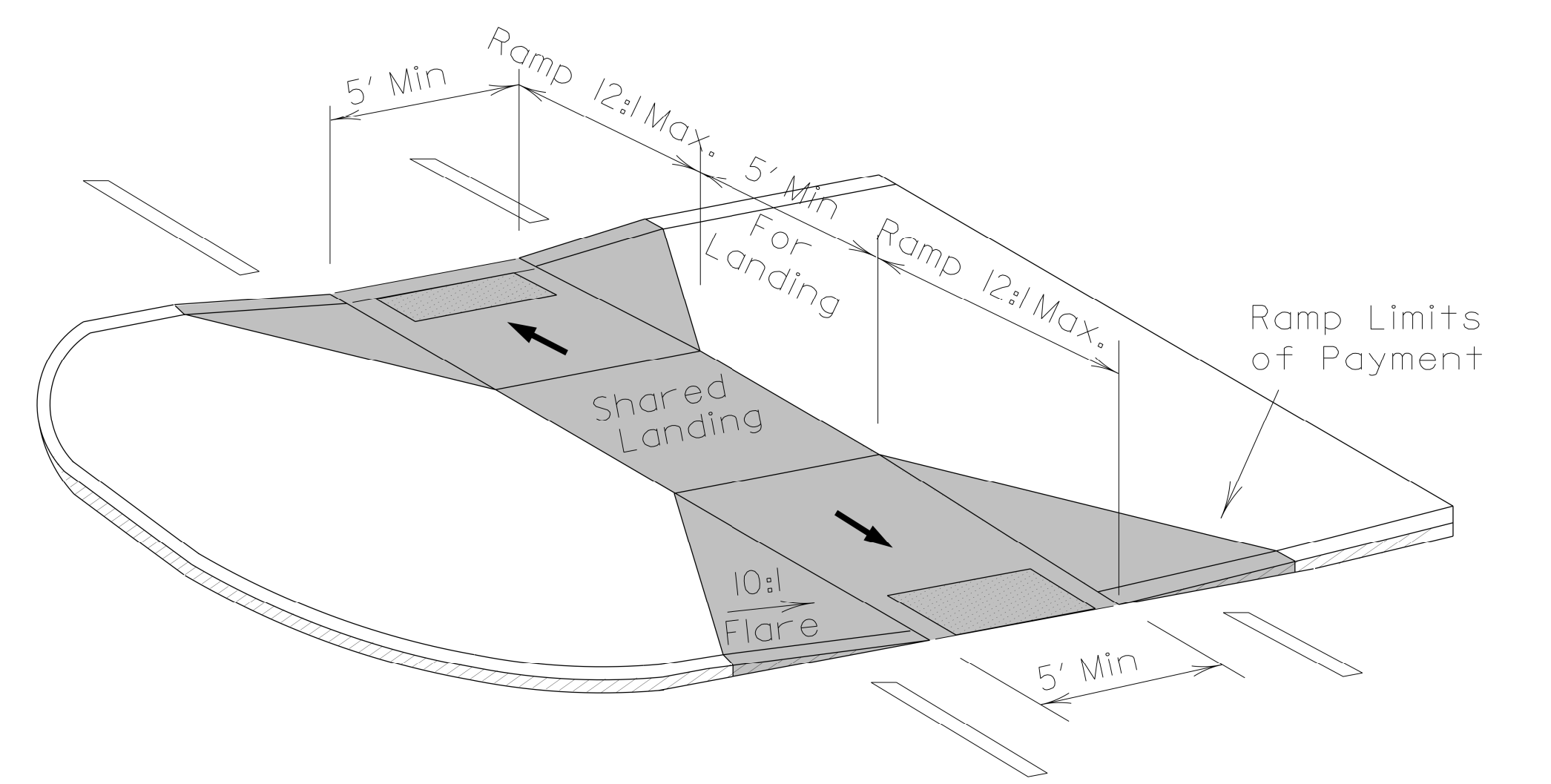


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY  
2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE  
ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

**TRIANGULAR ISLAND  
WITH CUT THROUGH**



**MEDIAN ISLAND  
WITH CUT THROUGH**



**MEDIAN ISLAND  
CURB RAMPS**

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

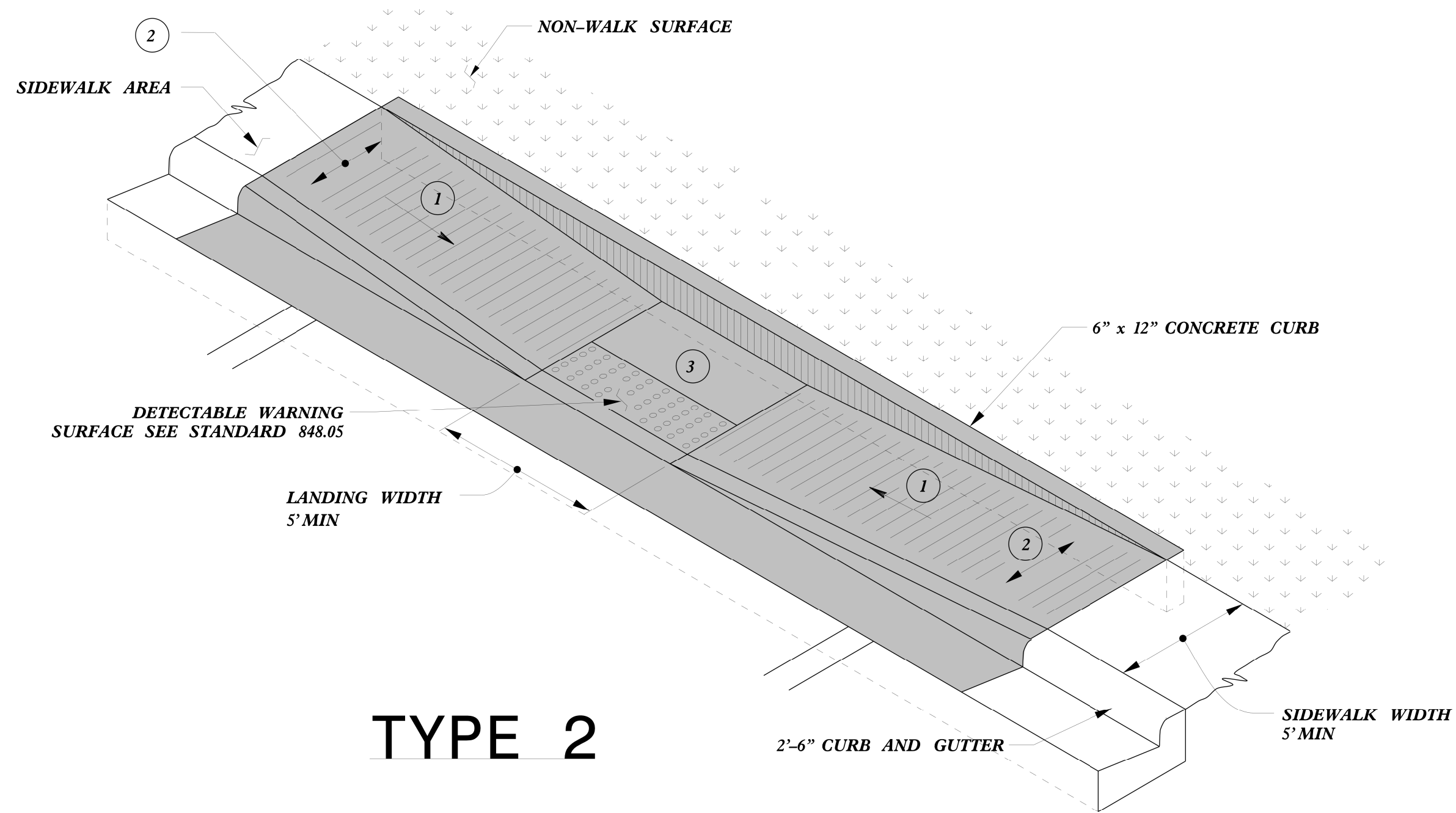
**CONTRACT STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**CURB RAMPS**  
Median or Turn Lane Islands

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11  
 MODIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC: .stds/2012CurbRamp/CurbRampDetails.dgn



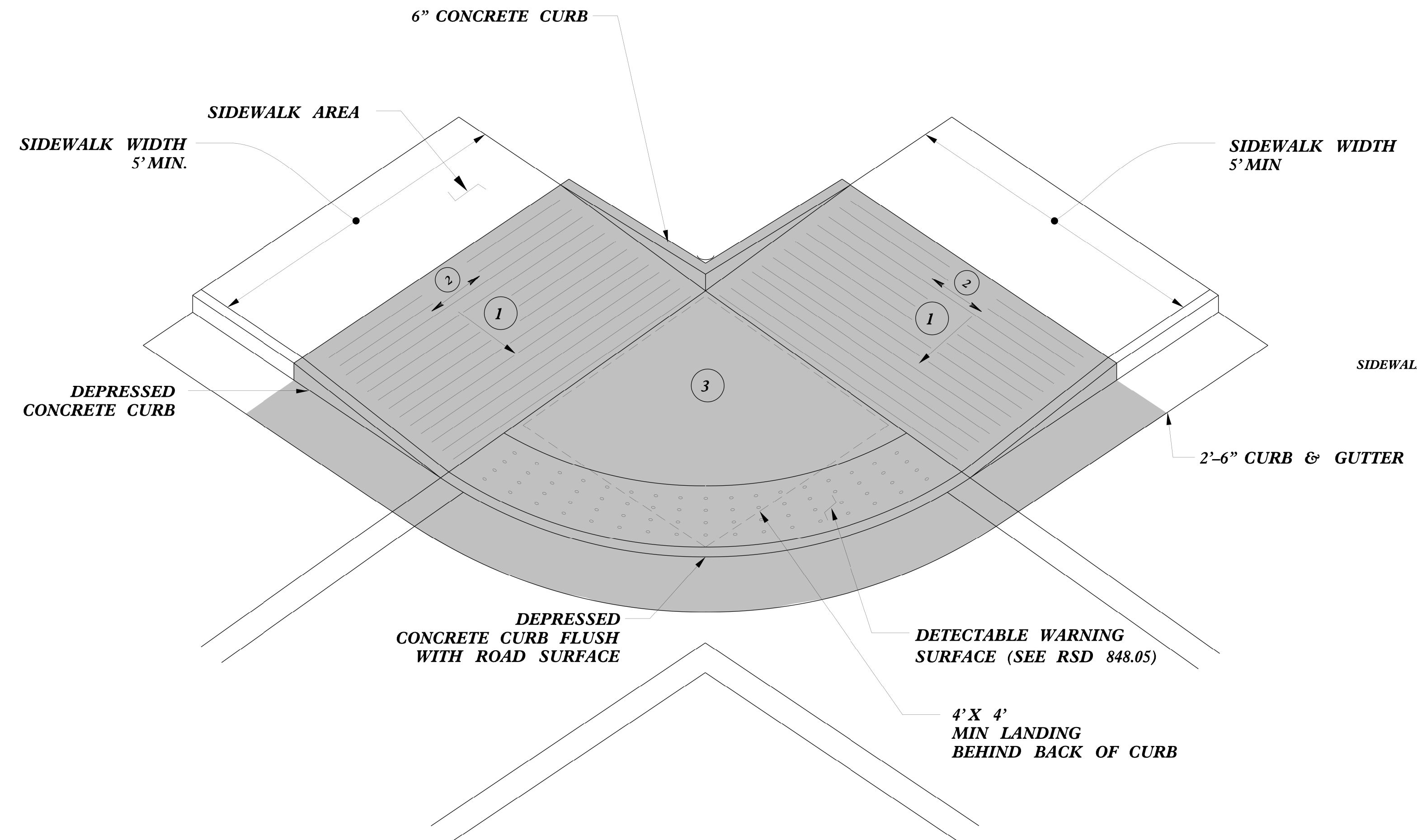
5/14/18  
 SYSTEM TIME  
 USER NAME



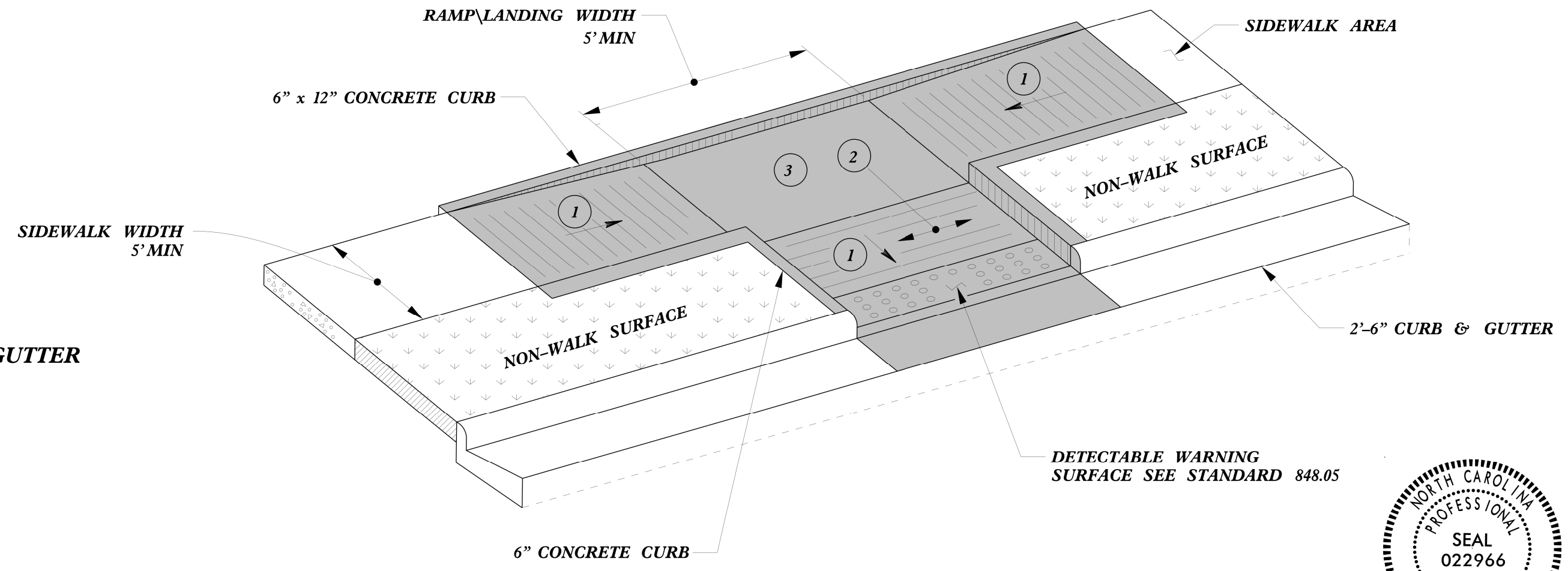
**TYPE 2**

**PAY LIMITS FOR 1 CURB RAMP**

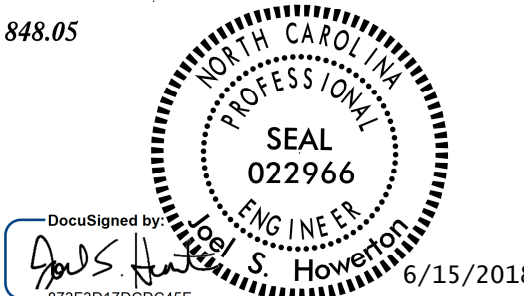
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



**TYPE 2A**



**TYPE 3**



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

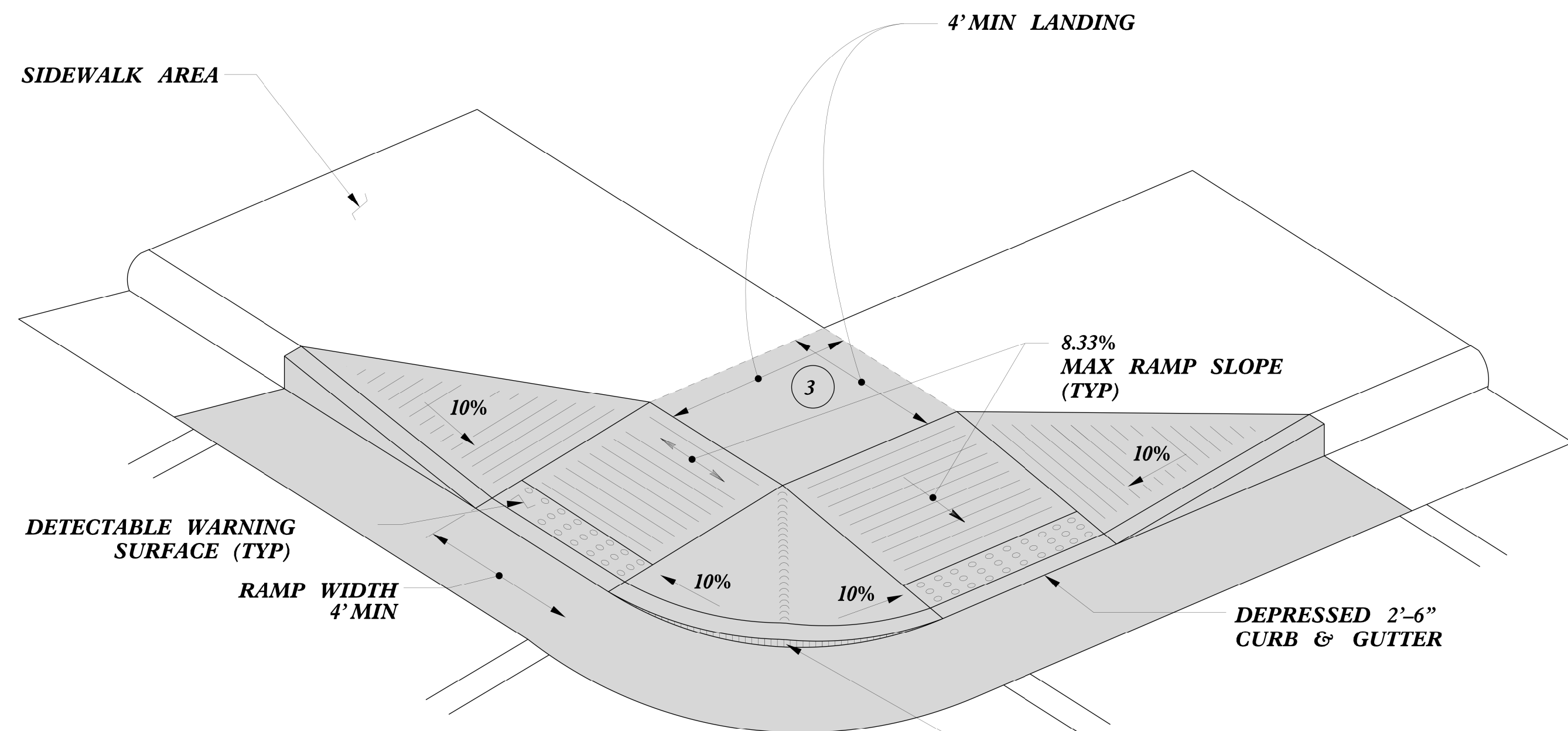
**CONTRACT STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**CURB RAMPS**  
Parallel Ramps

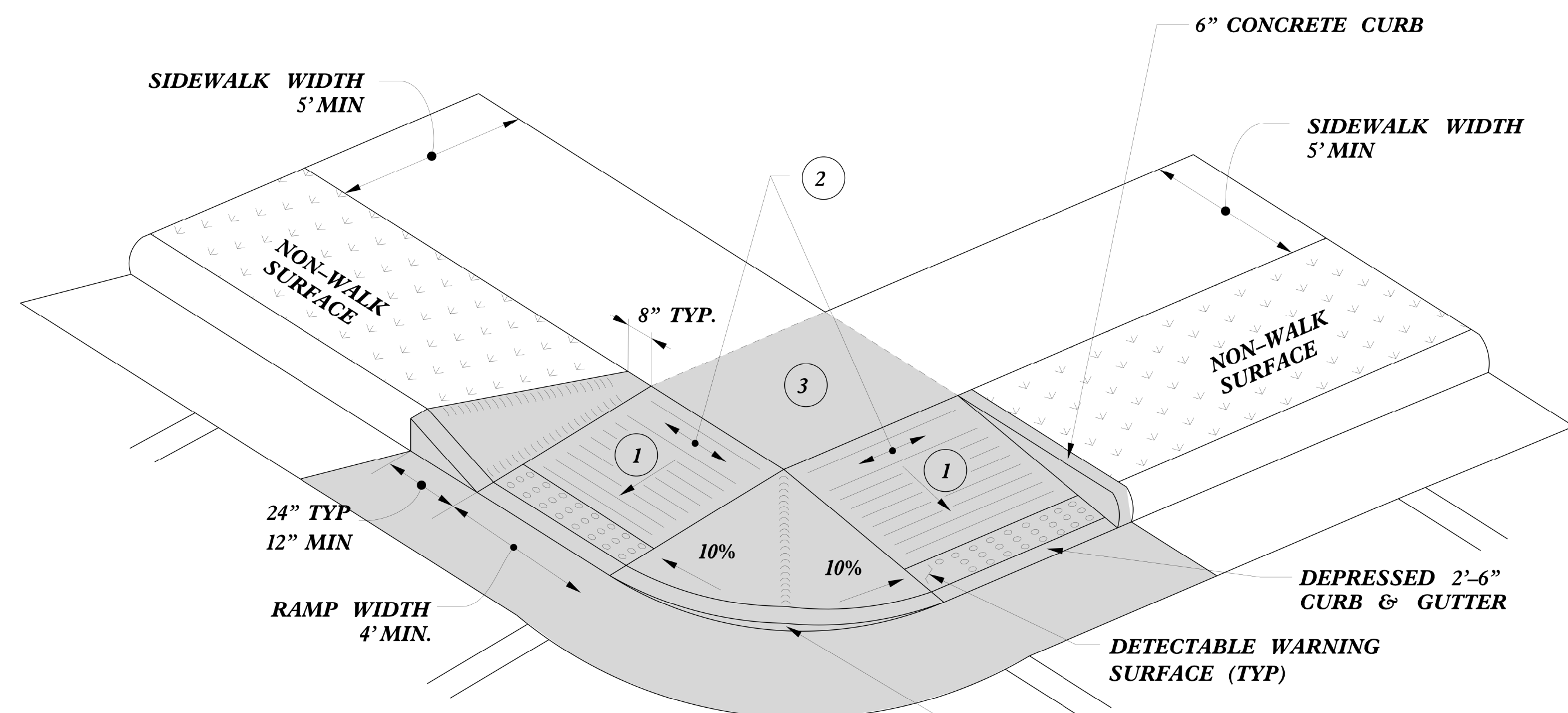
ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11  
 MODIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
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REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

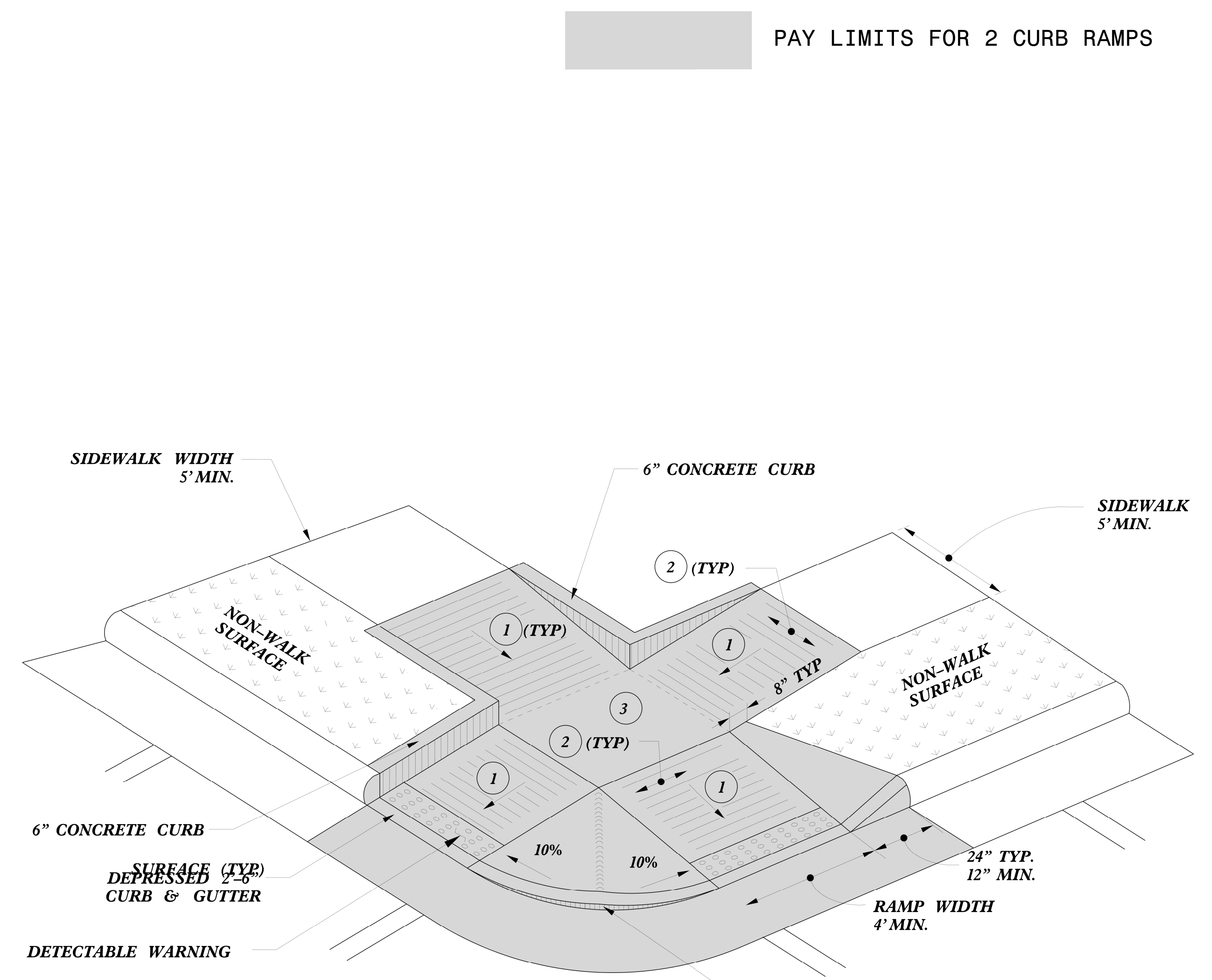
5/14/18  
SYTIME  
DGN  
USERNAME



**TYPE 4**



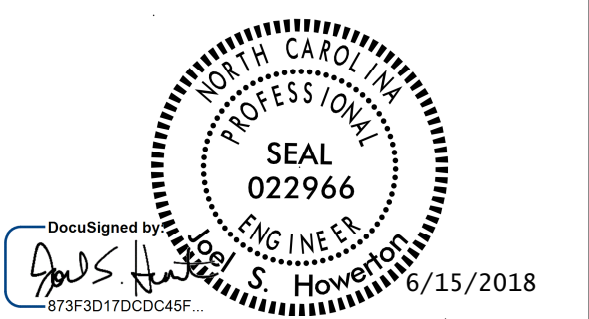
**TYPE 4A**



**TYPE 5**

**PAY LIMITS FOR 2 CURB RAMPS**

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>CURB RAMPS</b>	
Shared Landing	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: .stds/2012CurbRamp/CurbRampDetails.dgn	

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

5/14/11 5:41:59 PM SYSTEM TIME 5/14/11 5:41:59 PM USERNAME