

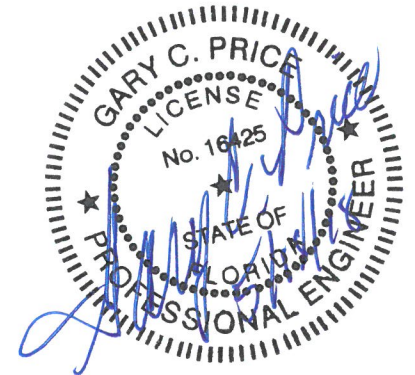
TABLE OF CONTENTS

Sheet 1-13 of 13 SCI100GM MASH Crash Cushion

- Sheet 1 General Notes
- Sheet 2 General System Features
- Sheet 3 System Components
- Sheet 4 Transition to Concrete K Barrier Wall
- Sheet 5 Anchor Plate for K Barrier
- Sheet 6 Support Bracket for K Barrier Transition
- Sheet 7 Transition to 24" Block
- Sheet 8 Transition to Variable Width Taper
- Sheet 9 Transition to Thrie Beam
- Sheet 10 Transition to 30" Block
- Sheet 11 Transition to 36" Block
- Sheet 12 Foundation Specifications
- Sheet 13 Portable Reinforced Concrete Pads (Temporary Only)

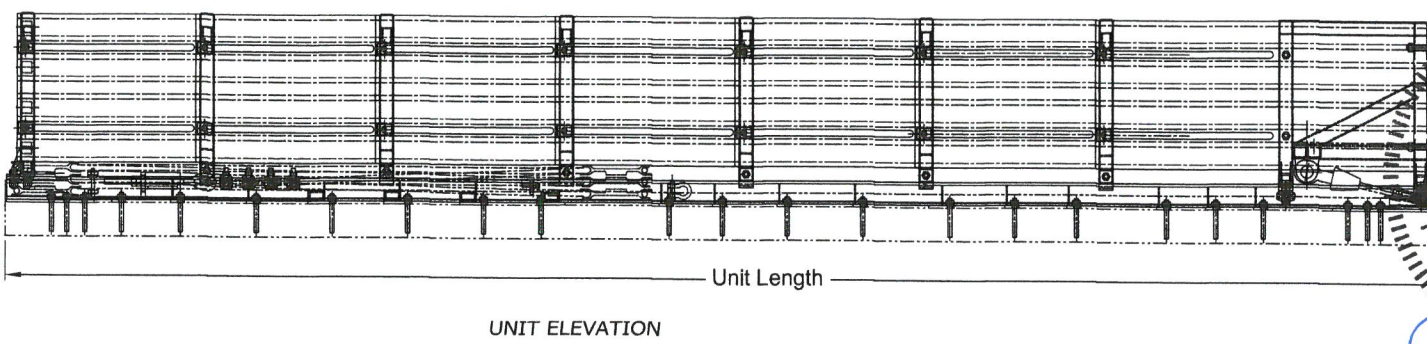
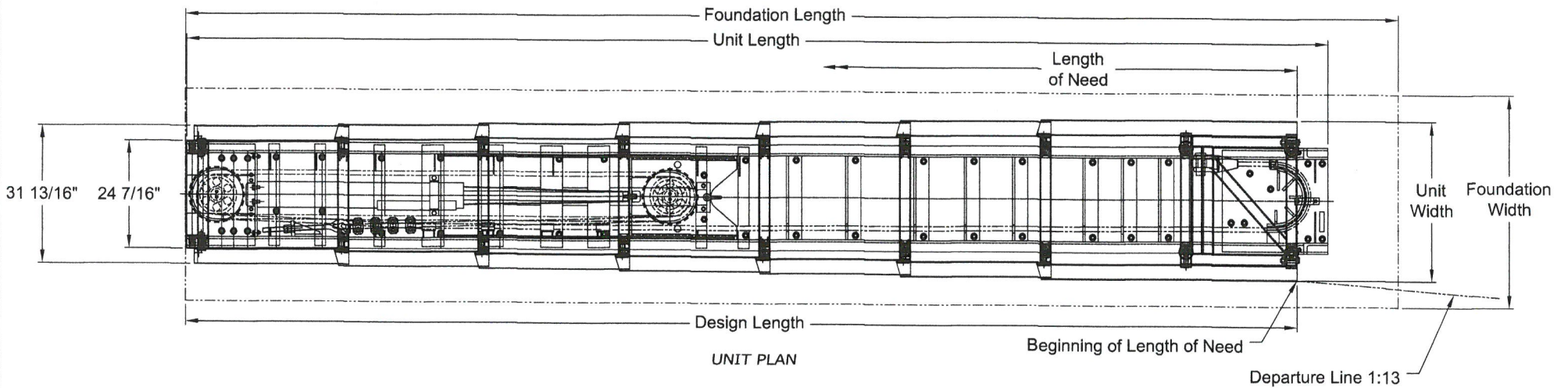
SCI Smart Cushion General Notes

1. The energy absorbing system represented on these Approved Products List (APL) drawings is a proprietary design by Work Area Protection Corp. and marketed under the name Smart Cushion.
2. The Smart Cushion is a non-gating, redirective crash cushion which is suited for shielding hazards. The Smart Cushion is used for temporary installations. The beginning length of need shall be at the point of intersection between the face of the crash cushion and the departure line (see Sheet 2).
3. The Smart Cushion has been evaluated to NCHRP Report 350 and MASH crash test criteria.
4. The Smart Cushion shall be assembled and installed in accordance with the manufacturer's detailed drawings, procedures, specifications, product manual or installation guide. Information and copies of the above manual are available on the Approved Product List (APL).
5. The Smart Cushion is available in 24" widths and utilizes transitions to accommodate wider widths. The system width will be as called out in the contract documents for each location.
6. The Smart Cushion uses a variable force hydraulic cylinder to supply the proper forces for a safe deceleration. The cylinder is ported for speed and will increase forces for higher speeds while decreasing forces for lower speeds to provide the necessary deceleration forces.
7. Metallic components shall meet the galvanizing requirements for guardrail, Specification 967.
8. Install Smart Cushions parallel to the approach travel lanes and cross slopes 1:10 or flatter.
9. Units of measure are in English units.



State of Florida Department of Transportation			
Work Area Protection Corp. SCI100GM MASH Crash Cushion			
	by	date	APL NO. 102-062-002
Drawn	PE	05/07/18	
Checked	JS	05/07/18	Sh. 1 of 13

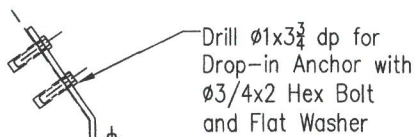
Specifications							
Model Number	Unit Width	Unit Length	Foundation Width	Foundation Length	Design Length	Workzone Speeds	Test Level Designation
SCI100GM	37"	260"	48"	276"	253"	≥ 50 mph	MASH



NOTES:
 1. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD ON IMPACT 30" MINIMUM.
 2. 6" MINIMUM REINFORCED 4000 PSI P.C. CONCRETE FOUNDATION OR 8" MINIMUM UNREINFORCED 4000 PSI P.C. CONCRETE FOUNDATION. SEE FOUNDATION DRAWINGS FOR ADDITIONAL SPECIFICATIONS AND OPTIONS.

GENERAL SYSTEM FEATURES

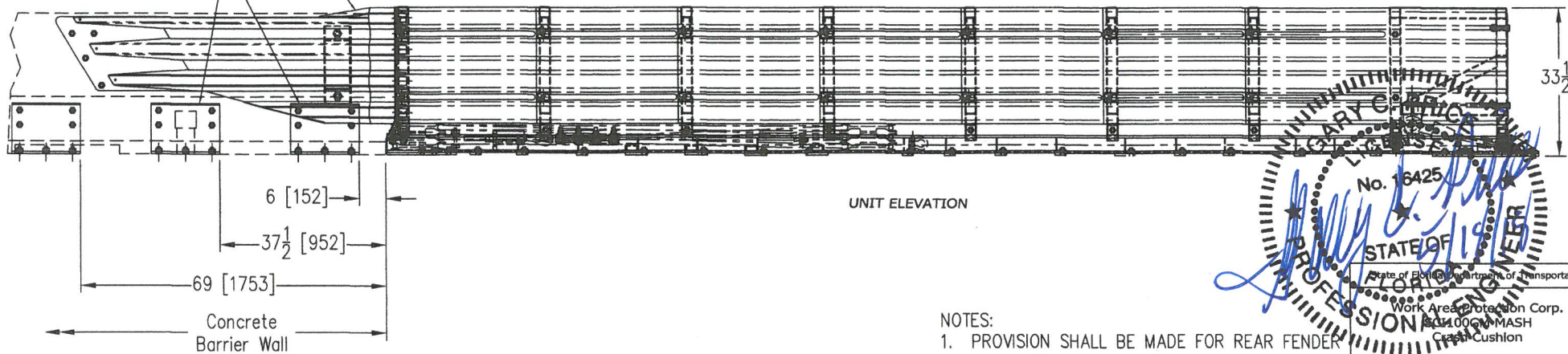
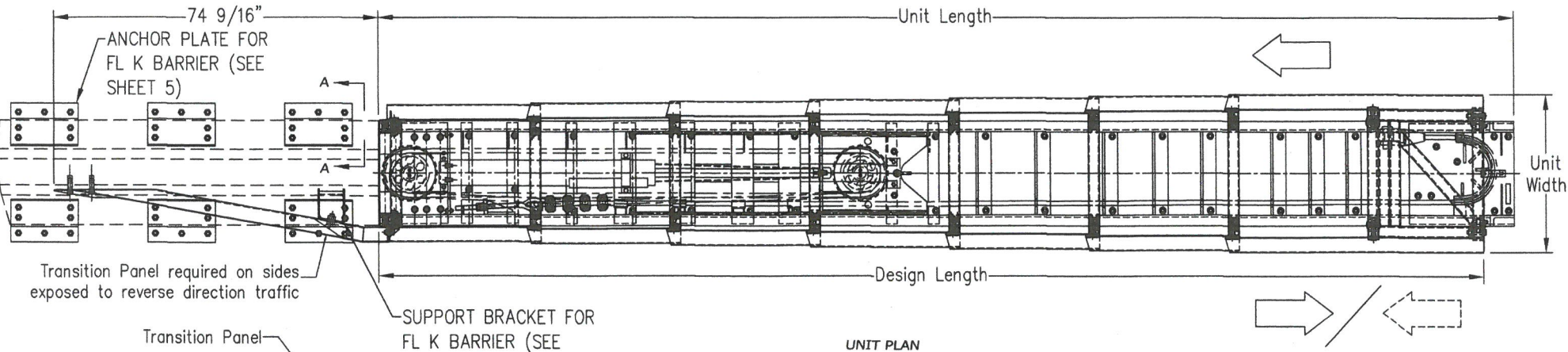
State of Florida Department of Transportation			
Work Area Protection Corp. SCI100GM MASH Crash Cushion			
by	date	APL NO. 102-062-002	
Drawn PE	05/07/18		
Checked JS	05/07/18	Sh. 2 of 13	



Specifications							
Model Number	Unit Width	Unit Length	Foundation Width	Foundation Length	Design Length	Workzone Speeds	Test Level Designation
SCI100GM	37"	260"	48"	276"	253"	≥ 50 mph	MASH

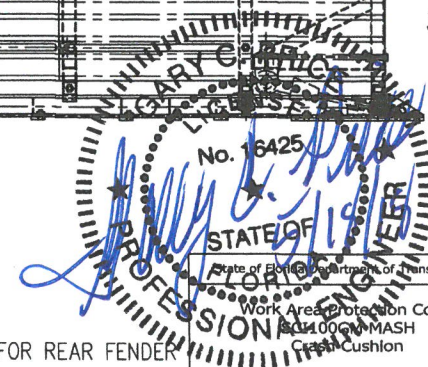
VIEW A-A
ANCHOR PLATE DETAIL

Concrete: use 3/4-NC x 7 long threaded rod set with epoxy
Asphalt: use 3/4-NC x 18 long threaded rod set with epoxy

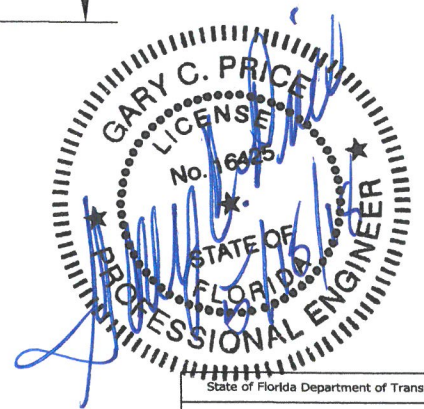
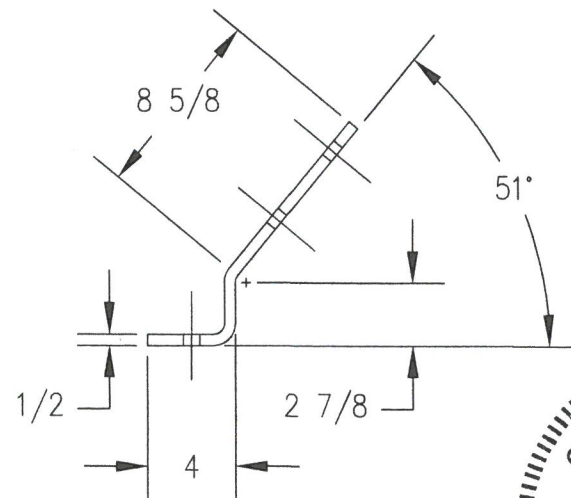
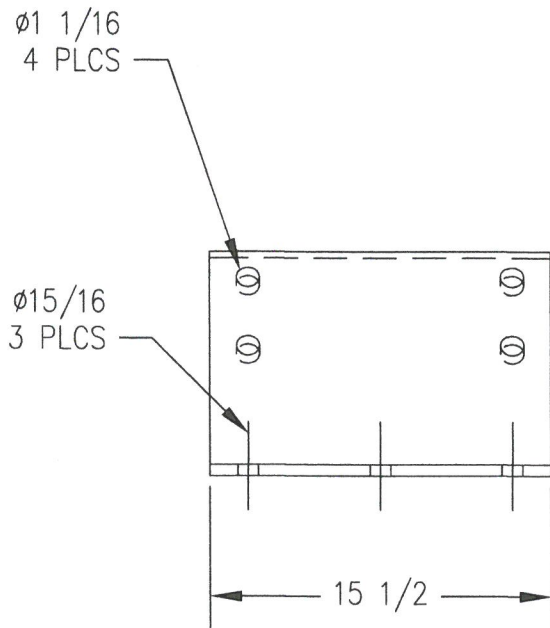


TRANSITION TO CONCRETE BARRIER WALL, K BARRIER

NOTES:
1. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD ON IMPACT 30" MINIMUM.



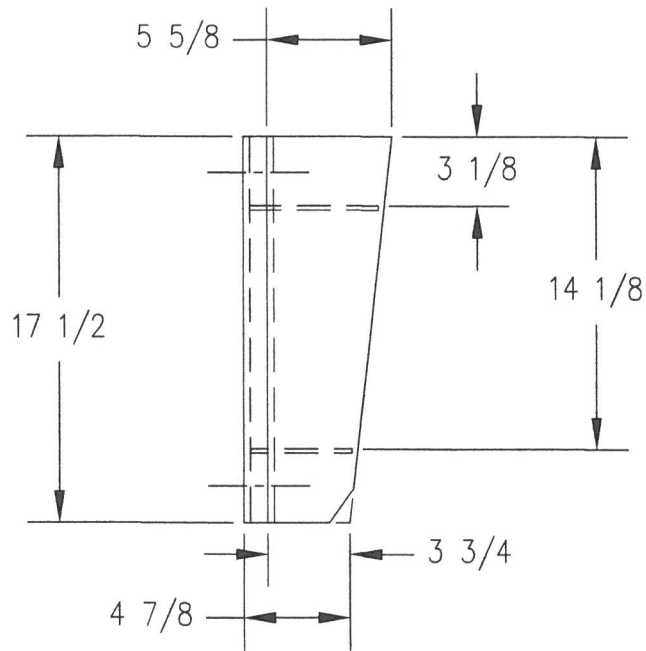
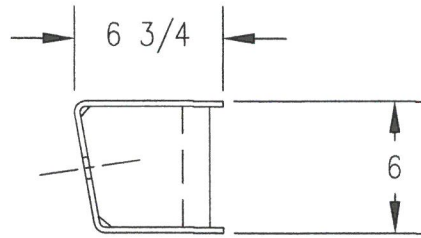
State of Florida Department of Transportation		
Work Area Protection Corp.		
SCI100GM MASH		
Crash Cushion		
by	date	APL NO. 102-062-002
Drawn	PE 05/07/18	
Checked	JS 05/07/18	



State of Florida Department of Transportation

Work Area Protection Corp.
 SCI100GM MASH
 Crash Cushion - Anchor Plate

by	date	APL NO. 102-062-002
Drawn PE	05/07/18	
Checked JS	05/07/18	Sh. 5 of 13

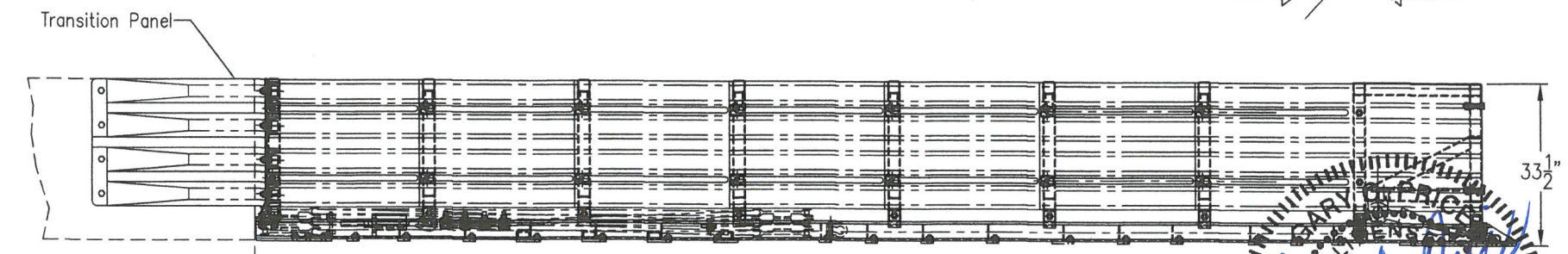
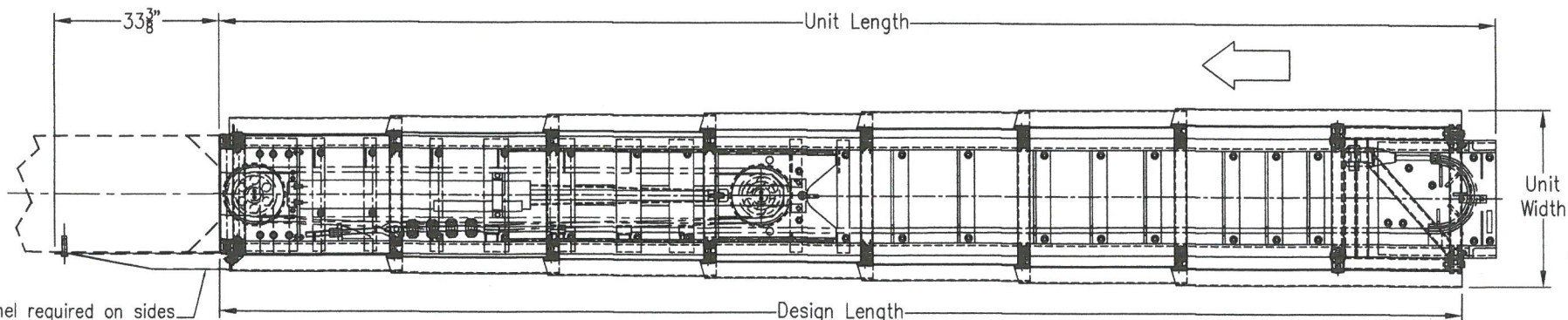


State of Florida Department of Transportation

Work Area Protection Corp.
 SCI100GM MASH
 Crash Cushion - Support Bracket

	by	date	APL NO. 102-062-002
Drawn	PE	05/07/18	
Checked	JS	05/07/18	Sh. 6 of 13

Specifications							
Model Number	Unit Width	Unit Length	Foundation Width	Foundation Length	Design Length	Workzone Speeds	Test Level Designation
SCI100GM	37"	260"	48"	276"	253"	≥ 50 mph	MASH



Professional Engineer Seal: No. 6425, State of Maryland, State of Florida, Department of Transportation, Work Area Protection Corp., SCI100GM MASH, Cushion

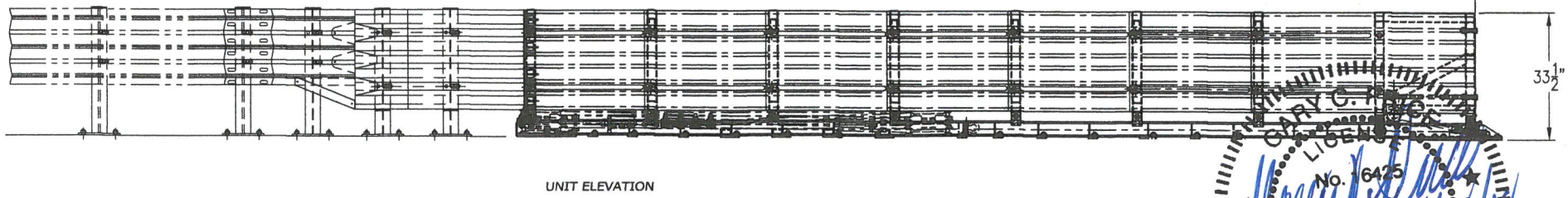
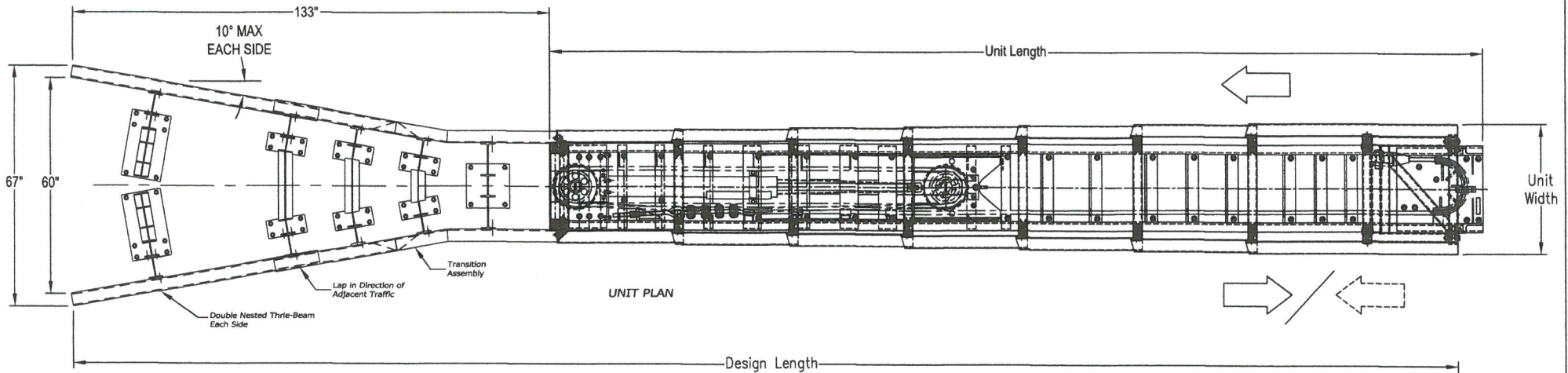
TRANSITION TO 24" BLOCK

NOTES:
 1. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD ON IMPACT 30" MINIMUM.

by	date	APL NO. 102-062-002
Drawn PE	05/07/18	
Checked JS	05/07/18	

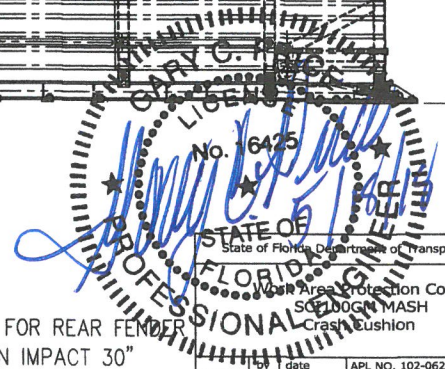
Specifications							
Model Number	Unit Width	Unit Length	Foundation Width	Foundation Length	Design Length	Workzone Speeds	Test Level Designation
SCI100GM	37"	260"	Varies	Varies	Varies	≥ 50 mph	MASH

Note: Can accommodate any width. Wider widths may require additional leg braces and guardrail. Contact manufacturer for dimensions and parts requirements.



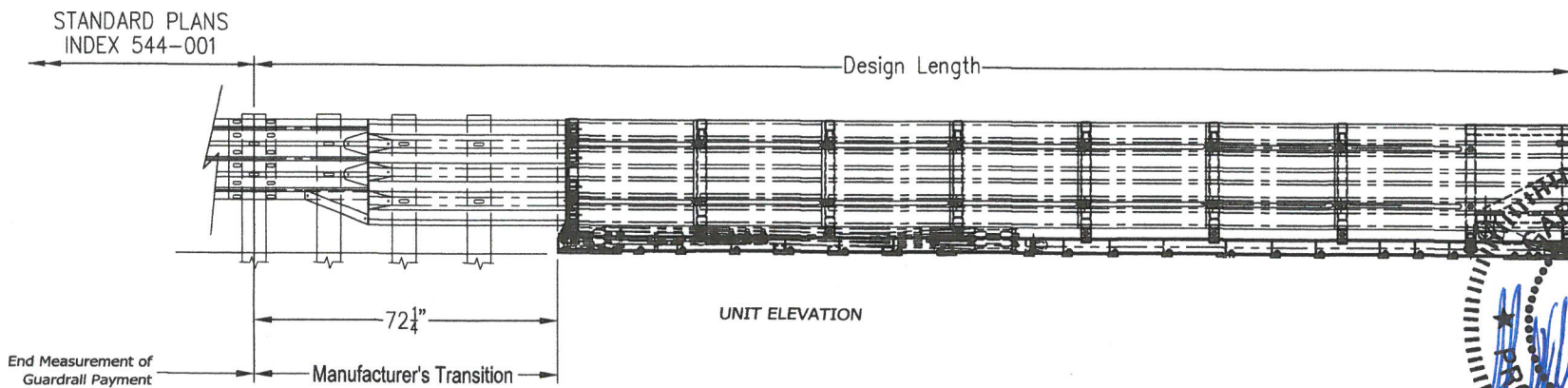
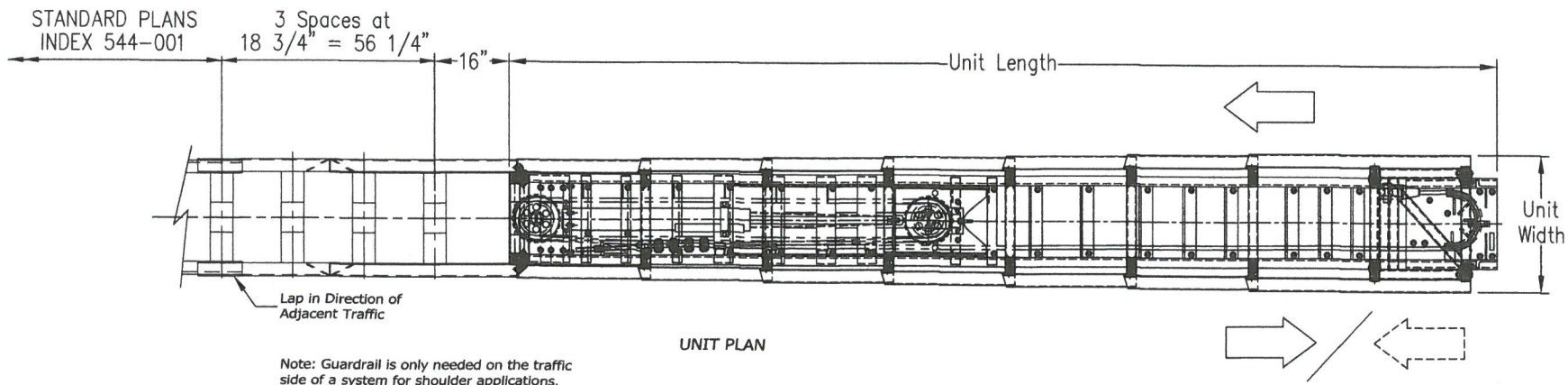
TRANSITION TO VARIABLE WIDTH TAPER

NOTES:
 1. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD ON IMPACT 30" MINIMUM.



Drawn	PE	05/07/18	APL NO. 102-062-002
Checked	JS	05/07/18	

Specifications							
Model Number	Unit Width	Unit Length	Foundation Width	Foundation Length	Design Length	Workzone Speeds	Test Level Designation
SCI100GM	37"	260"	48"	276"	326"	≥ 50 mph	MASH



TRANSITION TO THRIE BEAM

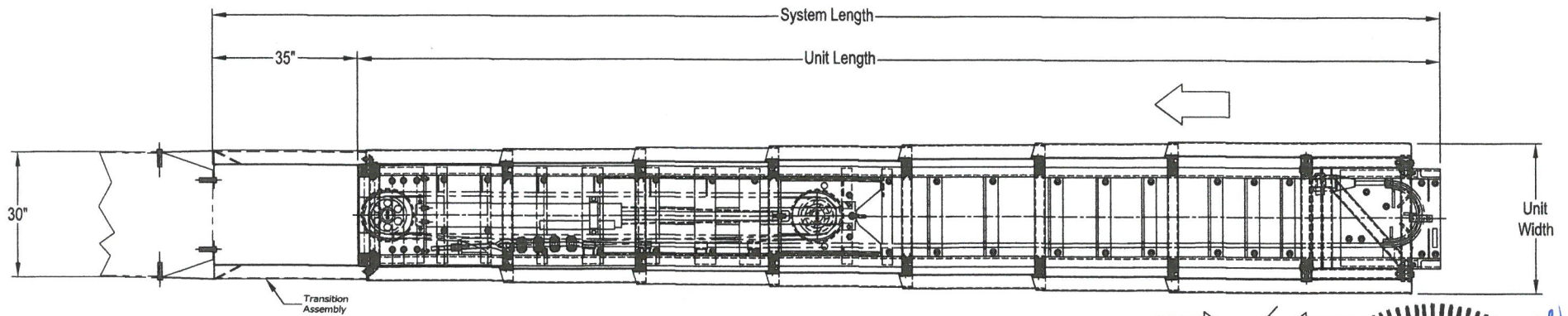
NOTES:
 1. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD ON IMPACT 30" MINIMUM.



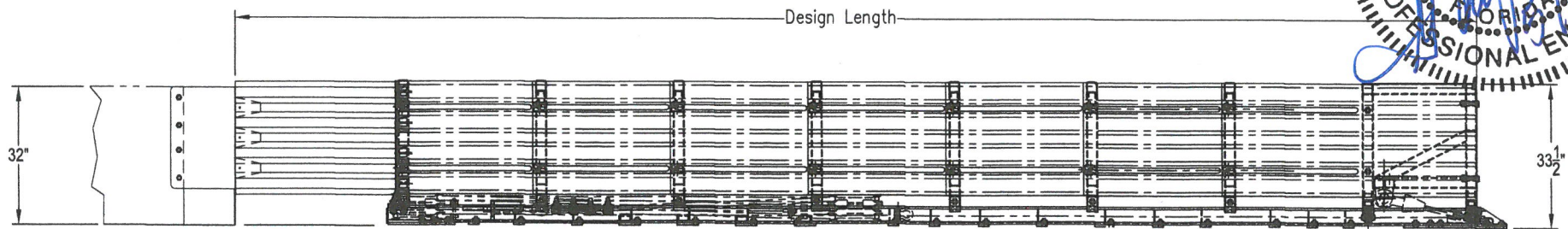
Work Area Protection Corp.
 SCI100GM MASH
 Crash Cushion

by	date	APL NO. 102-062-002
Drawn PE	05/07/18	
Checked JS	05/07/18	

Specifications							
Model Number	Unit Width	Unit Length	Foundation Width	Foundation Length	Design Length	Workzone Speeds	Test Level Designation
SCI100GM	37"	260"	48"	311"	288"	≥ 50 mph	MASH



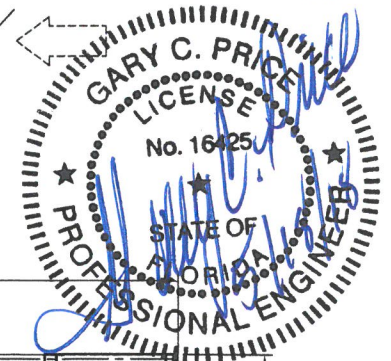
UNIT PLAN



UNIT ELEVATION

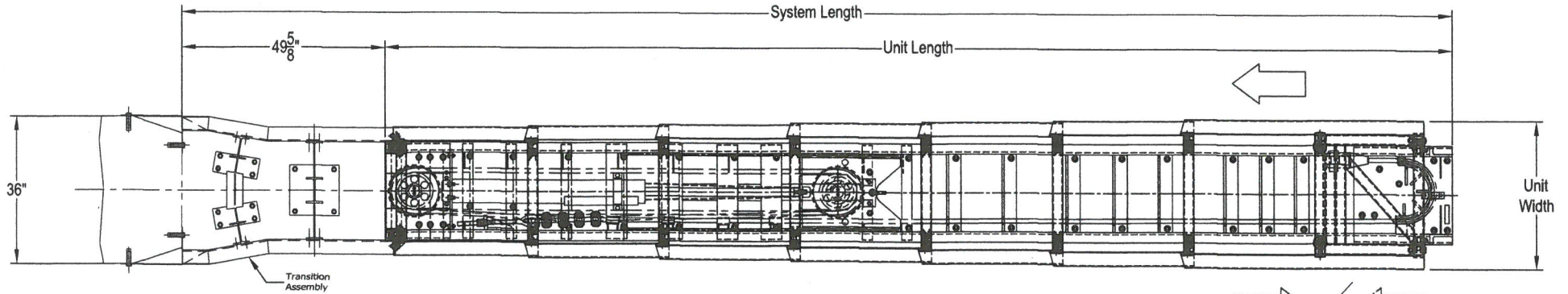
TRANSITION TO 30" BLOCK

NOTES:
 1. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD ON IMPACT 30" MINIMUM.

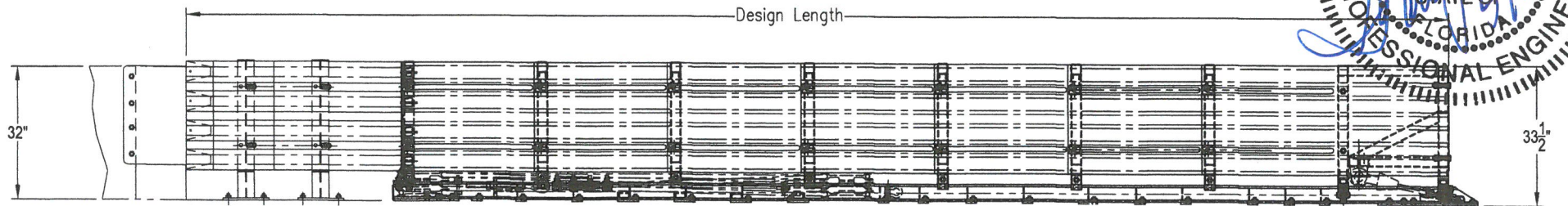


State of Florida Department of Transportation			
Work Area Protection Corp. SCI100GM MASH Crash Cushion			
Drawn	by	date	APL NO. 102-062-002
Checked	JS	05/07/18	
			Sh. 10 of 13

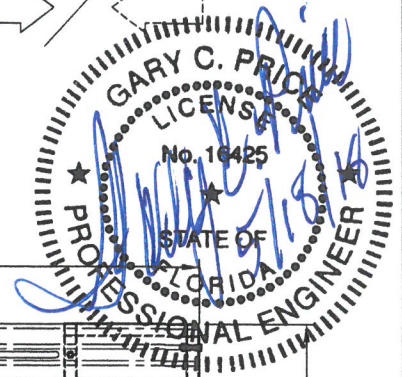
Specifications							
Model Number	Unit Width	Unit Length	Foundation Width	Foundation Length	Design Length	Workzone Speeds	Test Level Designation
SCI100GM	37"	260"	48"	326"	303"	≥ 50 mph	MASH



UNIT PLAN



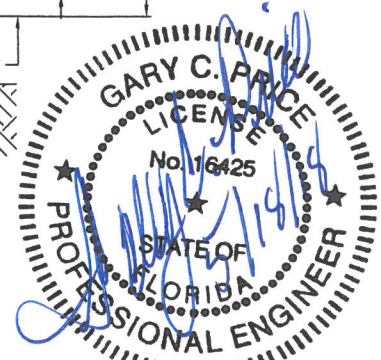
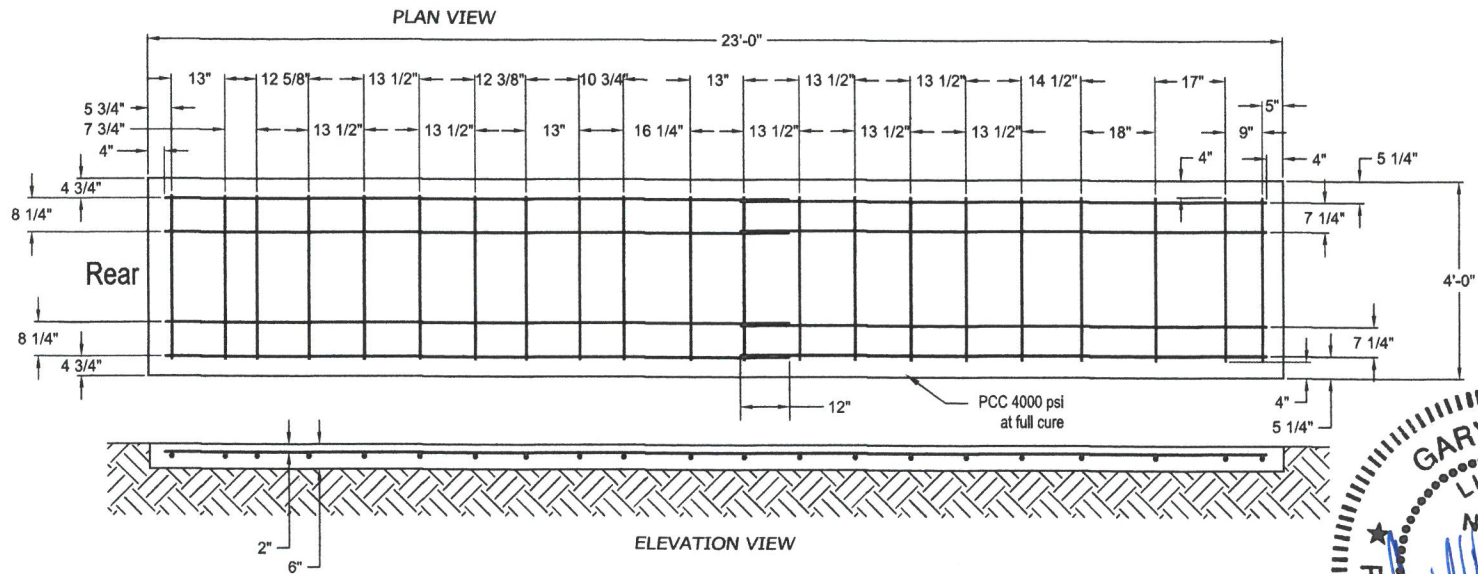
UNIT ELEVATION



TRANSITION TO 36" BLOCK

NOTES:
 1. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD ON IMPACT 30" MINIMUM.

State of Florida Department of Transportation			
Work Area Protection Corp. SCI100GM MASH Crash Cushion			
by	date	APL NO. 102-062-002	
Drawn	PE	05/07/18	
Checked	JS	05/07/18	Sh. 11 of 13



SPECIFICATIONS

All reinforcing steel - straight #4 ASTM-A36
 Embedment requirements:
 6" reinforced concrete pad with anchor embedment of 5 1/2"
 8" nonreinforced concrete pad with anchor embedment of 5 1/2"

The contractor shall furnish a certification for material installed to the following requirements:
 6" reinforced concrete (PCC) sampling per ASTM C31-84, testing per ASTM C39-84
 8" nonreinforced concrete (PCC) sampling per ASTM C31-84, testing per ASTM 39-84

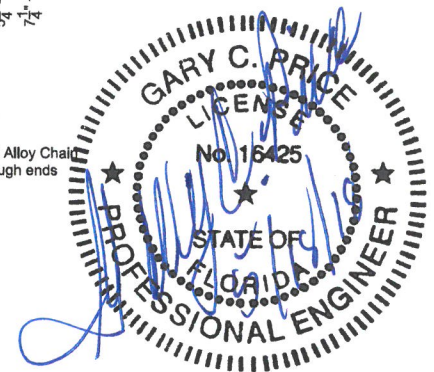
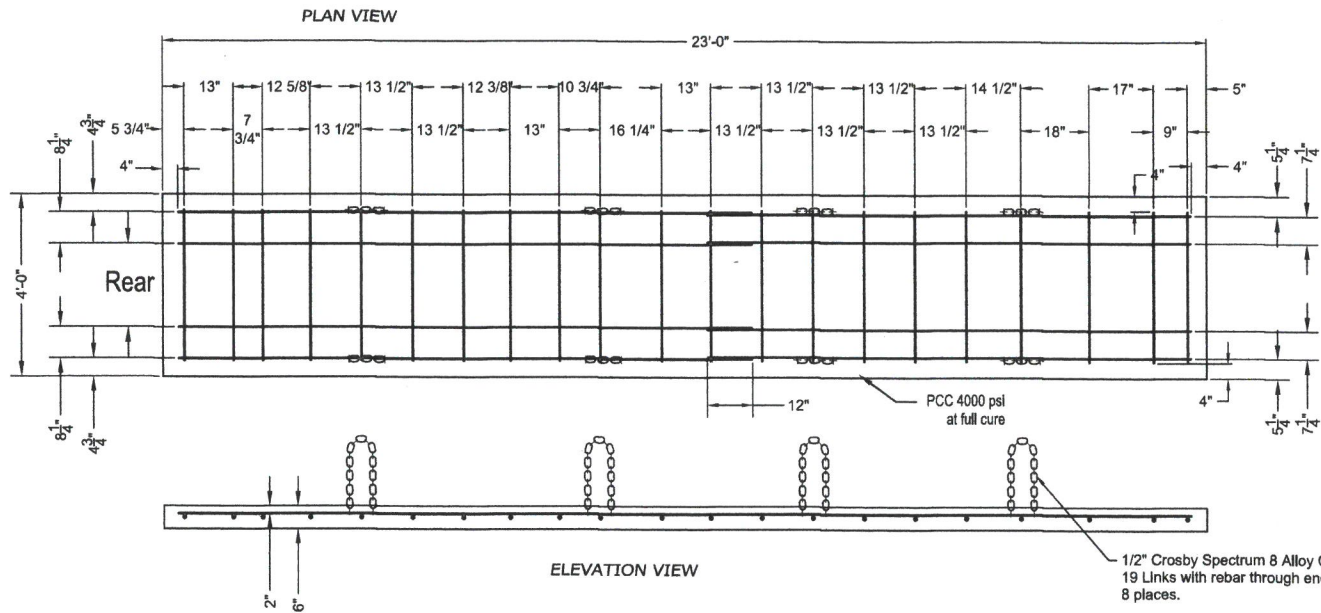
Anchors will be 3/4" x 7" (A194-B7) attached using
 Epoxy Type: Epcon A7-FL Spec. #S937-0108

Concrete strength shall be minimum 4000 psi @ 28 days

**** Non-reinforced foundation can be used by providing a thickness of 8" instead of 6" specified above. Other dimensions stay the same. ****

FOUNDATION SPECIFICATIONS

State of Florida Department of Transportation			
Work Area Protection Corp. SCI100GM MASH Crash Cushion			
Drawn	by	date	APL NO. 102-062-002
Checked	PE	05/07/18	
	JS	05/07/18	Sh. 12 of 13



PORTABLE REINFORCED CONCRETE PADS (TEMPORARY ONLY)

SPECIFICATIONS

All reinforcing steel - straight #4 ASTM A36

Anchors will be 3/4" x 7" (A194-B7) attached using
Epoxy Type: Epcon A7-FL Spec. #S937-0108

Concrete strength shall be minimum 4000 psi @ 28 days

State of Florida Department of Transportation		
Work Area Protection Corp. SCI100GM MASH Crash Cushion		
by	date	APL NO. 102-062-002
Drawn	PE 05/07/18	
Checked	JS 05/07/18	Sh. 13 of 13