



May 17, 2018

Hensel Phelps Construction Company
4129 E. Van Buren Street, Suite 100
Phoenix, AZ 85008

Attention: Mr. Eric Niec

Re: PHX Sky Train Stage 2
Phoenix, AZ
DRILLED SHAFT REINFORCING SHOP DRAWING SUBMITTAL FOR SECTION 9

Gentlemen:

Enclosed please find our attached reinforcing shop drawings prepared by our reinforcing subcontractor Paradise Rebar for Section 9. Please review at your earliest convenience.

If you have any questions regarding the information contained herein, or require any additional information, please contact me.

Very truly yours,

CASE FOUNDATION COMPANY

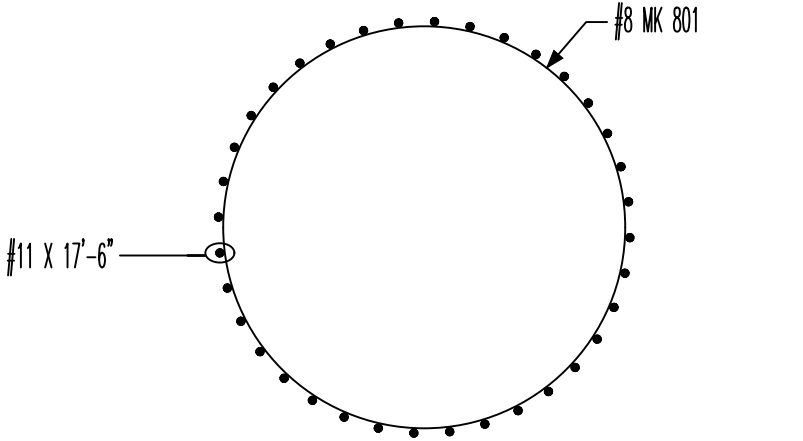
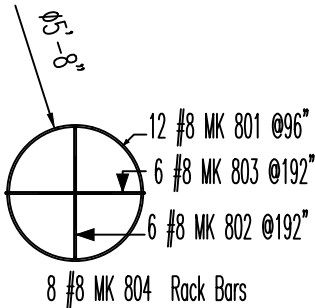
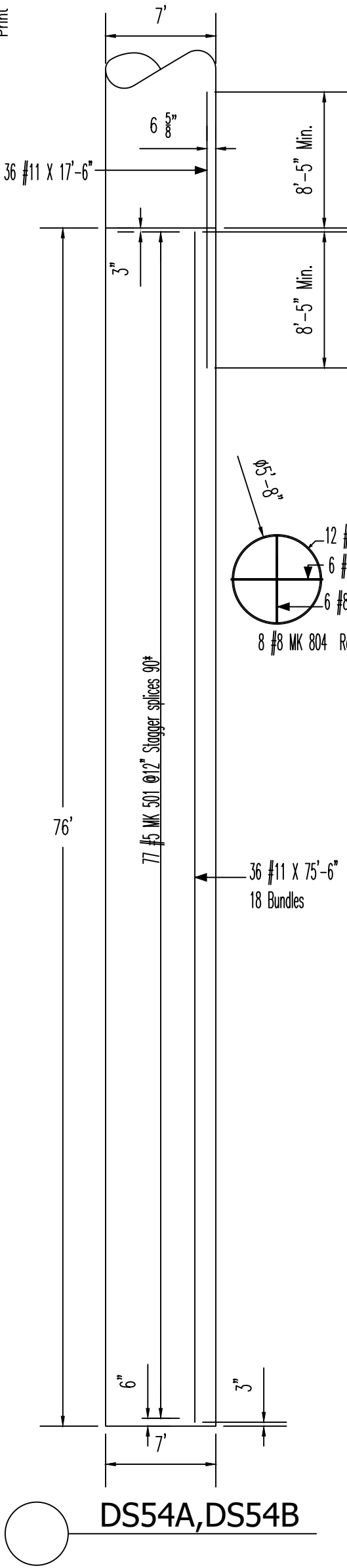
Aaron Thomas, PE
Senior Project Manager

Case Foundation Company
4050 E. Cotton Center Blvd. Suite 10
Phoenix, AZ 85040

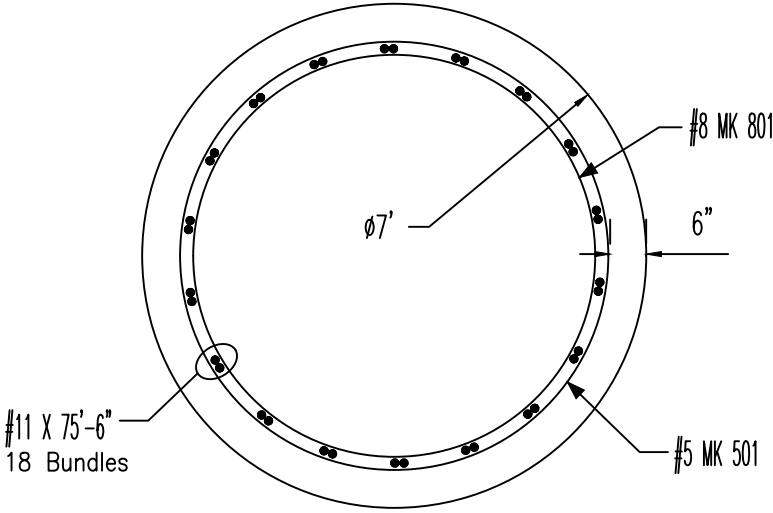
t: 602-454-0988
f: 602-454-2165

Equal Opportunity Employer – Minorities/Females/Disabled/Veterans





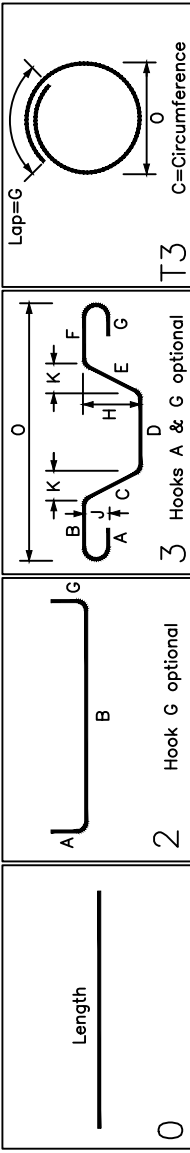
1 Column Dwls



2 Typ. Drilled Shaft

Member Title : DS54A												
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'
	36	#11	75'-6"			75'-6"						'R'
	36	#11	17'-6"			17'-6"						
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"	
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"	
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"			5'-8"	7'-8"
501	77	#5	20'-4"	T3			18'-10"				1'-6"	6'-0"
801	12	#8	19'-3 1/2"	T3			17'-9 1/2"				1'-6"	5'-8"

Member Title : DS54B												
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'
	36	#11	75'-6"			75'-6"						'R'
	36	#11	17'-6"			17'-6"						
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"	
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"	
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"			5'-8"	7'-8"
501	77	#5	20'-4"	T3			18'-10"				1'-6"	6'-0"
801	12	#8	19'-3 1/2"	T3			17'-9 1/2"				1'-6"	5'-8"



 2547 WEST JACKSON ST. PHOENIX, ARIZONA 85009 TEL. (602) 447-0839 FAX. (602) 447-8019	Notes/Revisions			
	Rev 0_For Approval_5/7/18			
Project: Sky Train Stage 2 Shafts	THIS DRAWING IS NOT TO BE SCALED.			
Drawing: Section 9 Pier 54 DS54A,DS54B	Fabricator Job#: 18A111			
Contractor: Case	Date 5/7/18	Drawn Phil	Contract No. 400254	Dwg. No. P54
Location: Sky Harbor				



2547 WEST JACKSON ST.

PHOENIX

ARIZONA 85009

TEL. (602) 447-0839

FAX. (602) 447-8019

Project: Sky Train Stage 2 Shafts

Drawing: Section 9 Pier 55
DS55A,DS55B

Contractor: Case

Location: Sky Harbor

Notes/Revisions

Rev 0_For Approval_5/7/18

THIS DRAWING IS NOT TO BE SCALED.

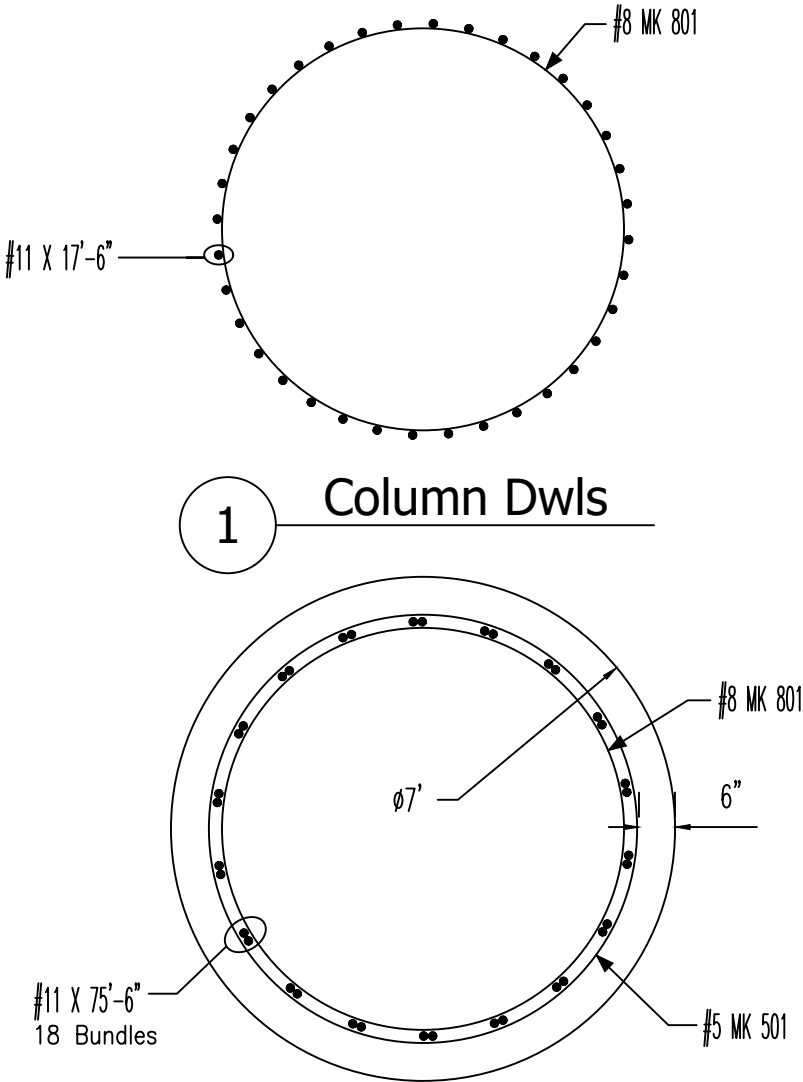
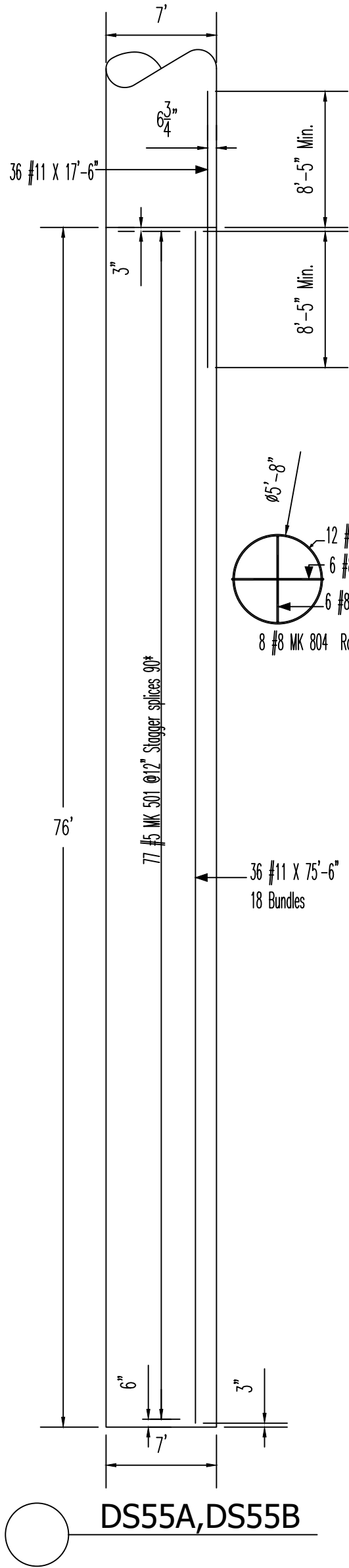
Fabricator Job#: 18A111

Date
5/7/18

Drawn
Phil

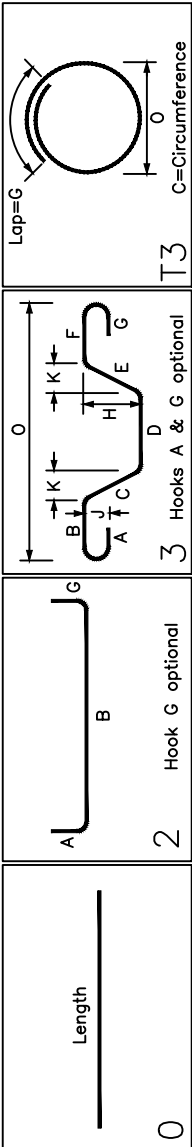
Contract No.
400254

Dwg. No.
P55



Member Title : DS55A																		BAR LIST																	
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'R'																			
	36	#11	75'-6"			75'-6"																													
	36	#11	17'-6"			17'-6"																													
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"																								
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"																								
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"				5'-8"		5'-8"	7'-8"																				
501	77	#5	20'-4"	T3			18'-10"					1'-6"			6'-0"																				
801	12	#8	19'-3 1/4"	T3			17'-9 1/4"					1'-6"			5'-8"																				
Bar list produced by RebarCAD 2018																																			

Member Title : DS55B																		BAR LIST																	
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'R'																			
	36	#11	75'-6"			75'-6"																													
	36	#11	17'-6"			17'-6"																													
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"																								
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"																								
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"				5'-8"		5'-8"	7'-8"																				
501	77	#5	20'-4"	T3			18'-10"				1'-6"				6'-0"																				
801	12	#8	19'-3 1/4"	T3			17'-9 1/4"				1'-6"				5'-8"																				
Bar list produced by RebarCAD 2018																																			





2547 WEST JACKSON ST.
PHOENIX
ARIZONA 85009
TEL. (602) 447-0839
FAX. (602) 447-8019

Project: Sky Train Stage 2 Shafts

Drawing: Section 9 Pier 56
DS56A,DS56B

Contractor: Case
Location: Sky Harbor

Notes/Revisions

Rev 0_For Approval_5/7/18

THIS DRAWING IS NOT TO BE SCALED.

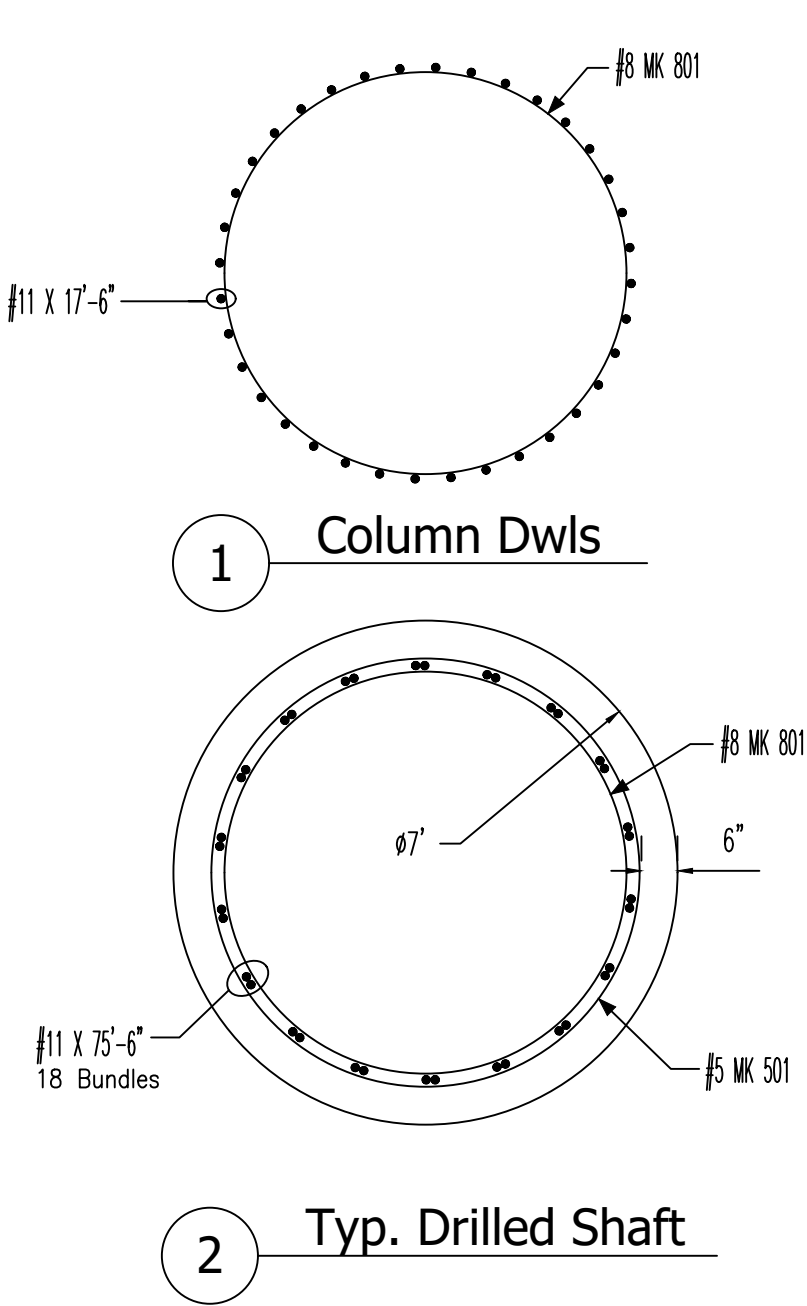
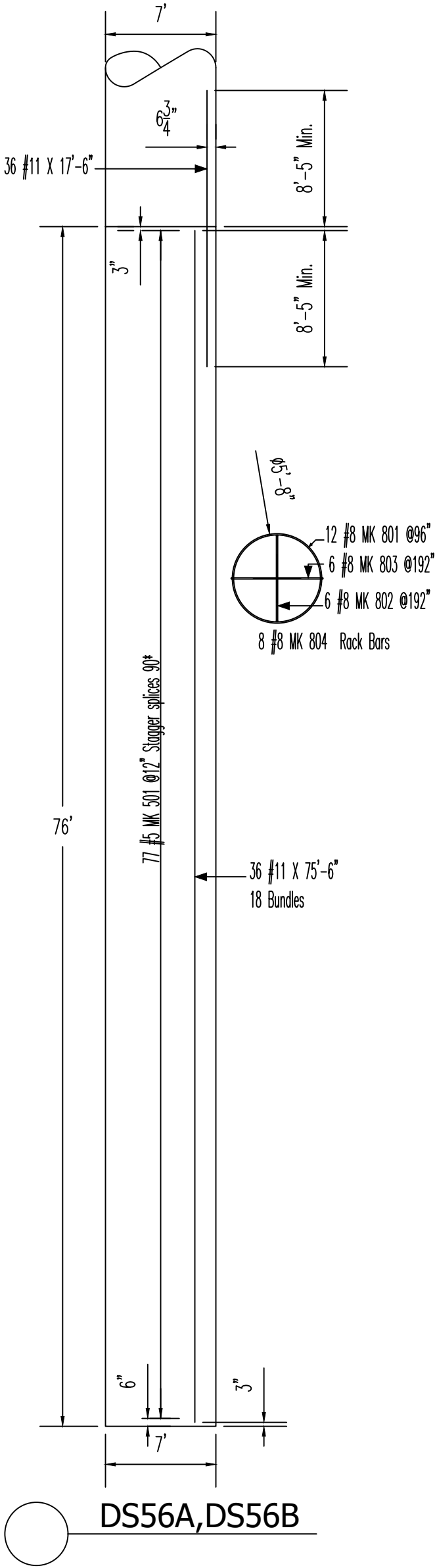
Fabricator Job#: 18A111

Date
5/7/18

Drawn
Phil

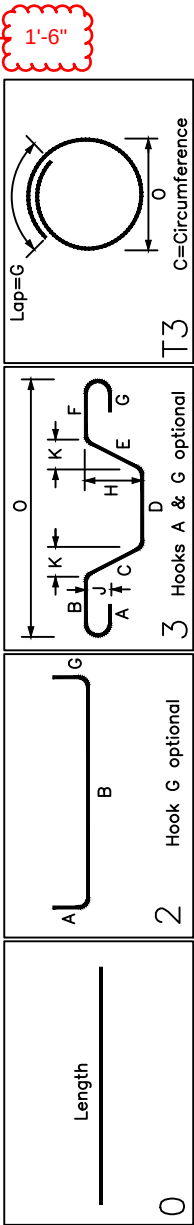
Contract No.
400254

Dwg. No.
P56



BAR LIST												
Member Title :	Qty	Size	Total Length	Type	A'	B'	C'	D'	E'	F'	G'	H'
DS56A	36	#11	75'-6"			75'-6"						
	36	#11	17'-6"			17'-6"						
	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"	
	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"	
	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"				5'-8"
DS56B	77	#5	20'-4"	T3			18'-10"				1'-6"	6'-0"
	12	#8	19'-3 1/2"	T3			17'-9 1/2"				1'-6"	5'-8"
Bar list produced by RebarCAD 2018												

BAR LIST												
Member Title :	Qty	Size	Total Length	Type	A'	B'	C'	D'	E'	F'	G'	H'
DS56B	36	#11	75'-6"			75'-6"						
	36	#11	17'-6"			17'-6"						
	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"	
	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"	
	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"				5'-8"
DS56B	77	#5	20'-4"	T3			18'-10"				1'-6"	6'-0"
	12	#8	19'-3 1/2"	T3			17'-9 1/2"				1'-6"	5'-8"
Bar list produced by RebarCAD 2018												





2547 WEST JACKSON ST.
PHOENIX
ARIZONA 85009
TEL. (602) 447-0539
FAX. (602) 447-8019

Project: Sky Train Stage 2 Shafts

Drawing: Section 9 Pier 57
DS57A,DS74B

Contractor: Case

Location: Sky Harbor

Notes/Revisions

Rev 0_For Approval_5/7/18

THIS DRAWING IS NOT TO BE SCALED.

Fabricator Job#: 18A111

Date
5/7/18

Drawn
Phil

Contract No.
400254

Dwg. No.
P57

76'

36 #11 X 17'-6"

7'

6 3/4"

3"

8'-5" Min.

8'-5" Min.

77 #5 MK 501 @12" Stagger splices 90°

6"

7'

3"

DS57A,DS57B

8'-5"

12 #8 MK 801 @96"

6 #8 MK 803 @192"

6 #8 MK 802 @192"

8 #8 MK 804 Rock Bars

36 #11 X 75'-6"

18 Bundles

Member Title : DS57A													
BAR LIST													
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'
	36	#11	75'-6"			75'-6"							'R'
	36	#11	17'-6"			17'-6"							
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"		
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"		
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"			1'-6"	5'-8"	7'-8"
501	77	#5	20'-4"	T3			18'-10"				1'-6"		6'-0"
801	12	#8	19'-3 1/4"	T3			17'-9 1/4"				1'-6"		5'-8"
Bar list produced by RebarCAD 2018													

Member Title : DS57B													
BAR LIST													
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'
	36	#11	75'-6"			75'-6"							'R'
	36	#11	17'-6"			17'-6"							
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"		
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"		
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"			1'-6"	5'-8"	7'-8"
501	77	#5	20'-4"	T3			18'-10"				1'-6"		6'-0"
801	12	#8	19'-3 1/4"	T3			17'-9 1/4"				1'-6"		5'-8"
Bar list produced by RebarCAD 2018													

1 Column Dwls

2 Typ. Drilled Shaft

#11 X 17'-6"

#8 MK 801

#11 X 75'-6"

18 Bundles

#8 MK 801

6"

#5 MK 501

Ø7'

Length

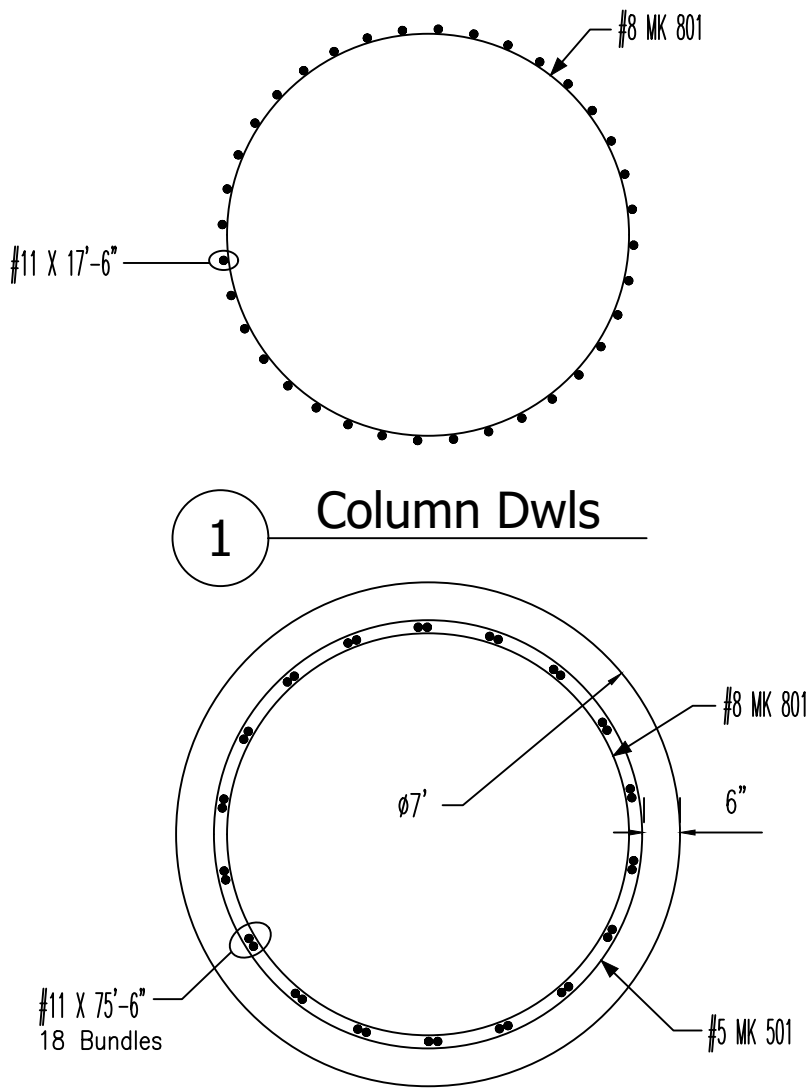
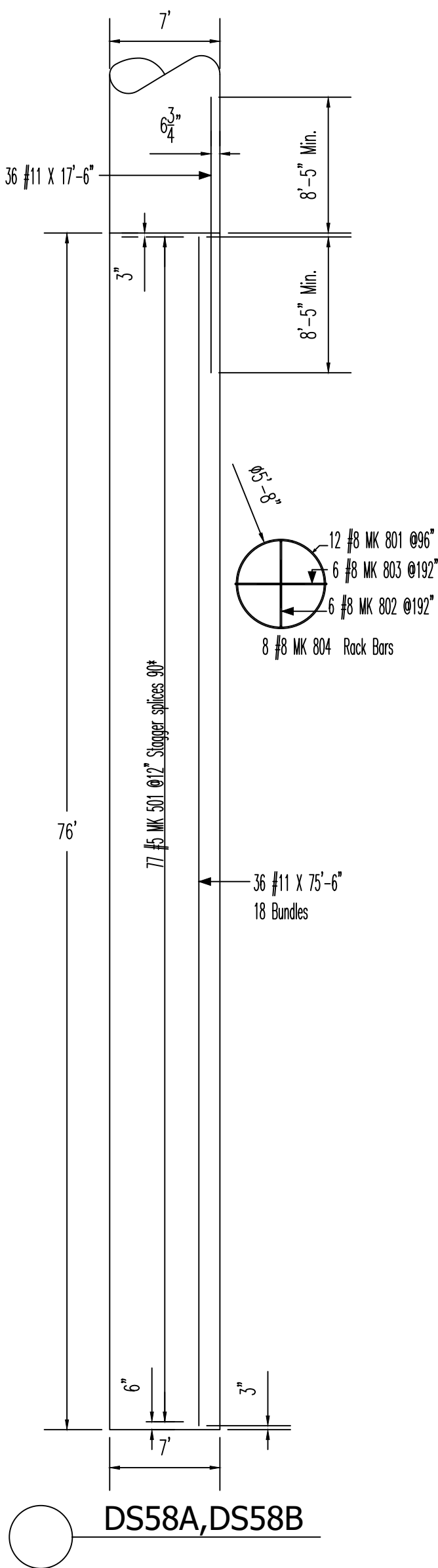
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2 Hook G optional

3 Hooks A & G optional

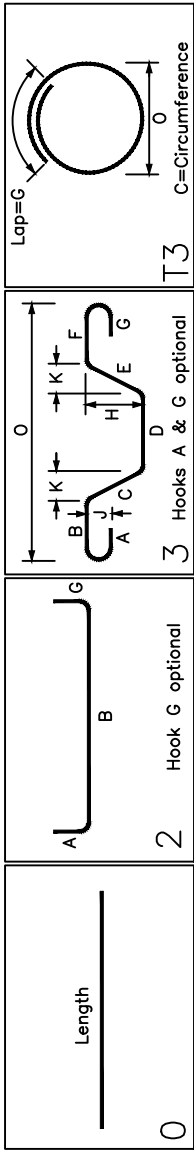
Lap=G

T3 C=Circumference

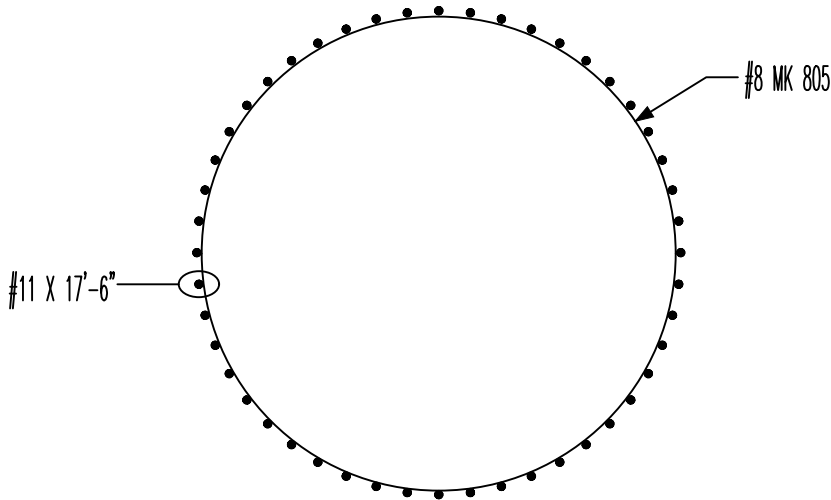
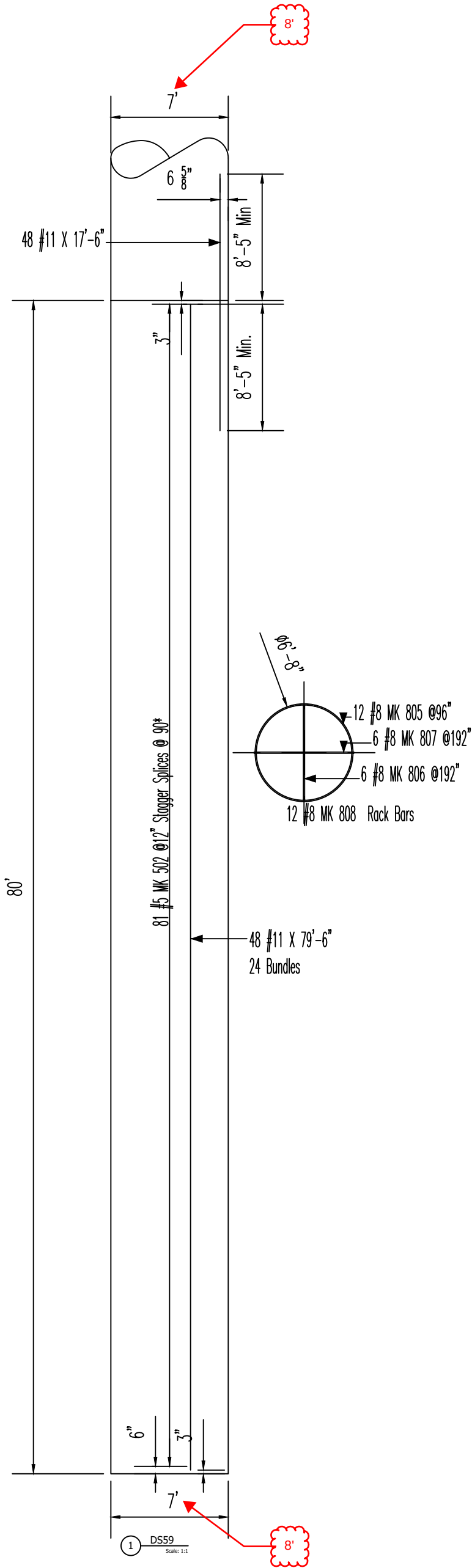


Member Title : DS58A				BAR LIST												
Bar Mark	Qty	Size	Total Length	Type	A'	B'	C'	D'	E'	F'	G'	H'	J'	K'	O'	R'
	36	#11	75'-6"			75'-6"										
	36	#11	17'-6"			17'-6"										
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"					
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"					
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"				5'-8"		5'-8"	7'-8"	
501	77	#5	20'-4"	13			18'-10"				1'-6"				6'-0"	
801	12	#8	19'-3 1/2"	13			17'-9 1/2"				1'-6"				5'-8"	

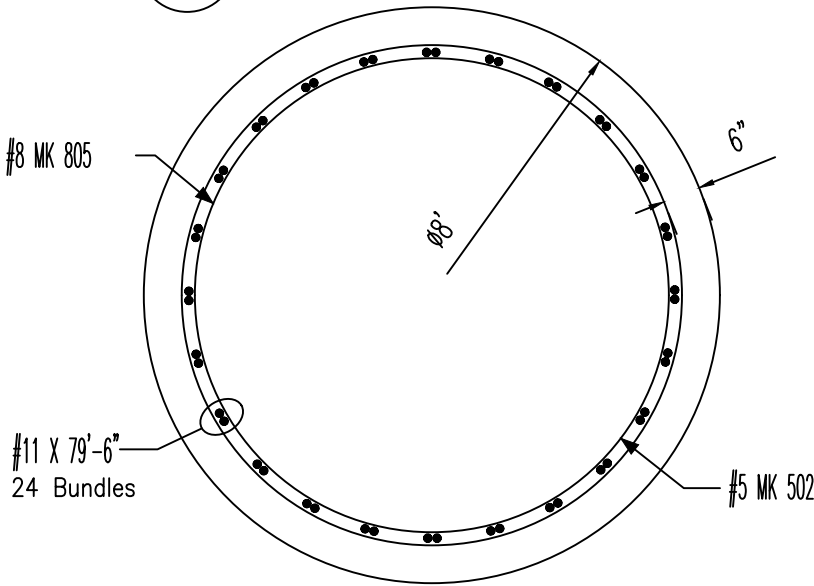
Member Title : DCSBB				BAR LIST												
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'R'
	36	#11	75'-6"			75'-6"										
	36	#11	17'-6"			17'-6"										
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"					
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"					
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"				5'-8"		5'-8"	7'-8"	
501	77	#5	20'-4"	13			18'-10"				1'-6"				6'-0"	
801	12	#8	19'-3 1/2"	13			17'-9 1/2"				1'-6"				5'-8"	



	2547 WEST JACKSON ST. PHOENIX ARIZONA 85009 TEL. (602) 447-0839 FAX. (602) 447-8019	Notes/Revisions			
	Project: Sky Train Stage 2 Shafts	Rev 0_For Approval_5/7/18			
Drawing: Section 9 Pier 58 DS58A,DS58B	THIS DRAWING IS NOT TO BE SCALED.				
	Fabricator Job#: 18A111				
Contractor: Case	Date 5/7/18	Drawn Phil	Contract No. 400254	Dwg. No. P58	
Location: Sky Harbor					



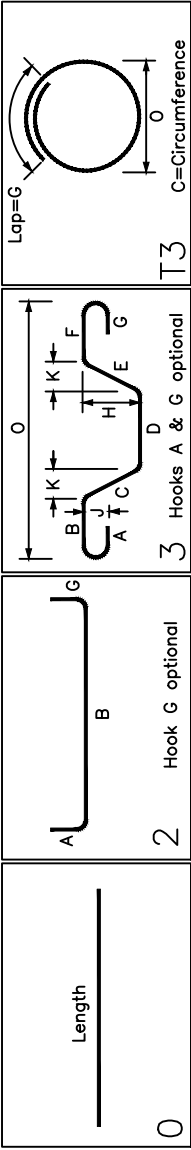
1 Column Dwls



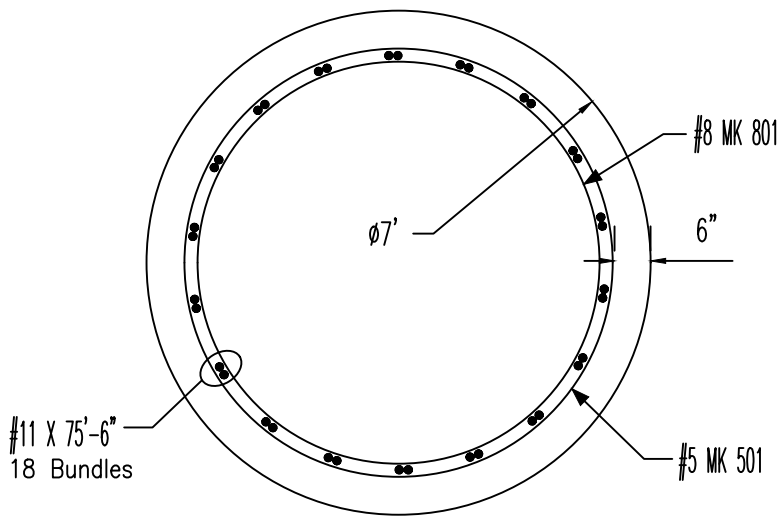
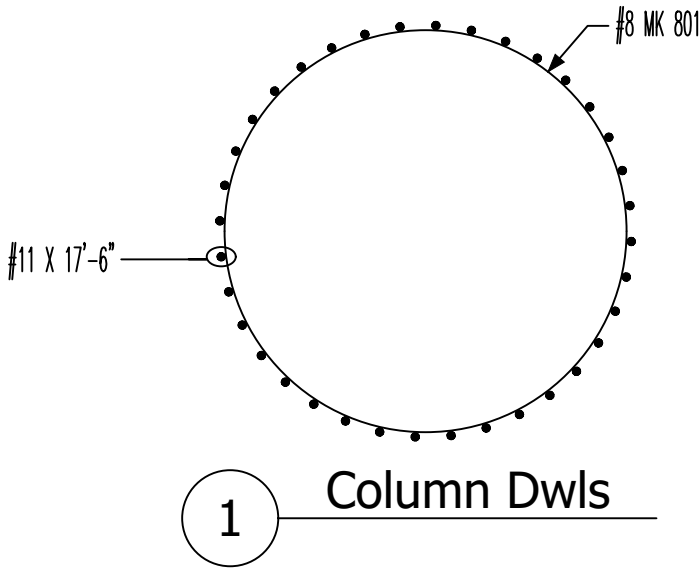
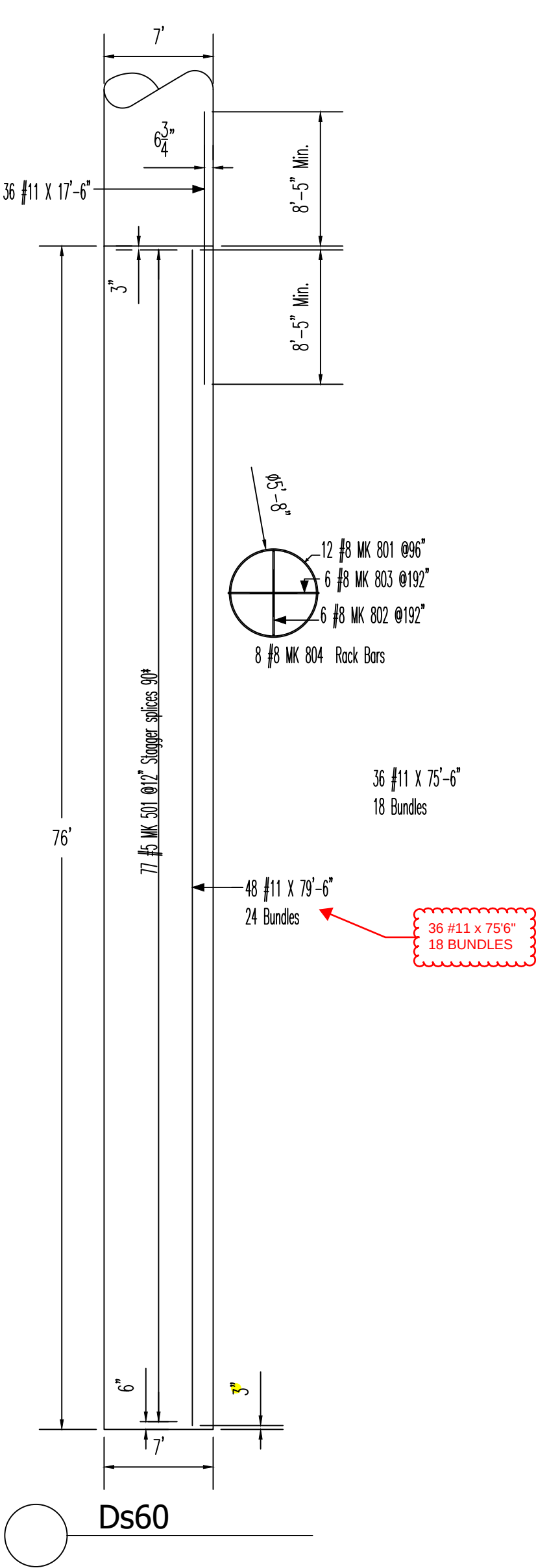
2 Typ. Drilled Shaft

BAR LIST												
Member Title : DS59	Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'
	48 #11	79'-6"										'H'
	48 #11	17'-6"										'I'
	6 #8	9'-2"	2			1'-4"	6'-6"					'J'
	6 #8	9'-6"	2			1'-4"	6'-10"					'K'
	12 #8	11'-5"	3			1'-0"	1'-0"					'L'
	81 #5	23'-5 1/2"	T3			21'-11 1/2"	9'-5"					'M'
	12 #8	22'-5 1/2"	T3			20'-11 1/2"	1'-6"					'N'

Bar list produced by RebarCAD 2016

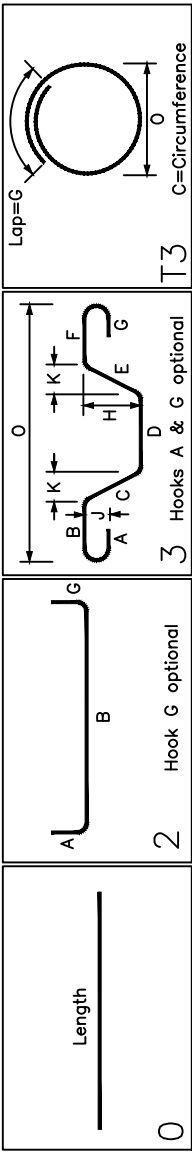


 2547 WEST JACKSON ST. PHOENIX ARIZONA 85009 TEL. (602) 447-0839 FAX. (602) 447-8019	Notes/Revisions			
	Rev 0_For Approval_5/7/18			
Project: Sky Train Stage 2 Shafts		THIS DRAWING IS NOT TO BE SCALED.		
Drawing: Section 9 Pier 59 DS59A,DS59B		Fabricator Job#: 18A111		
Contractor: Case	Date	Drawn	Contract No.	Dwg. No.
Location: Sky Harbor	5/7/18	Phil	400254	P59



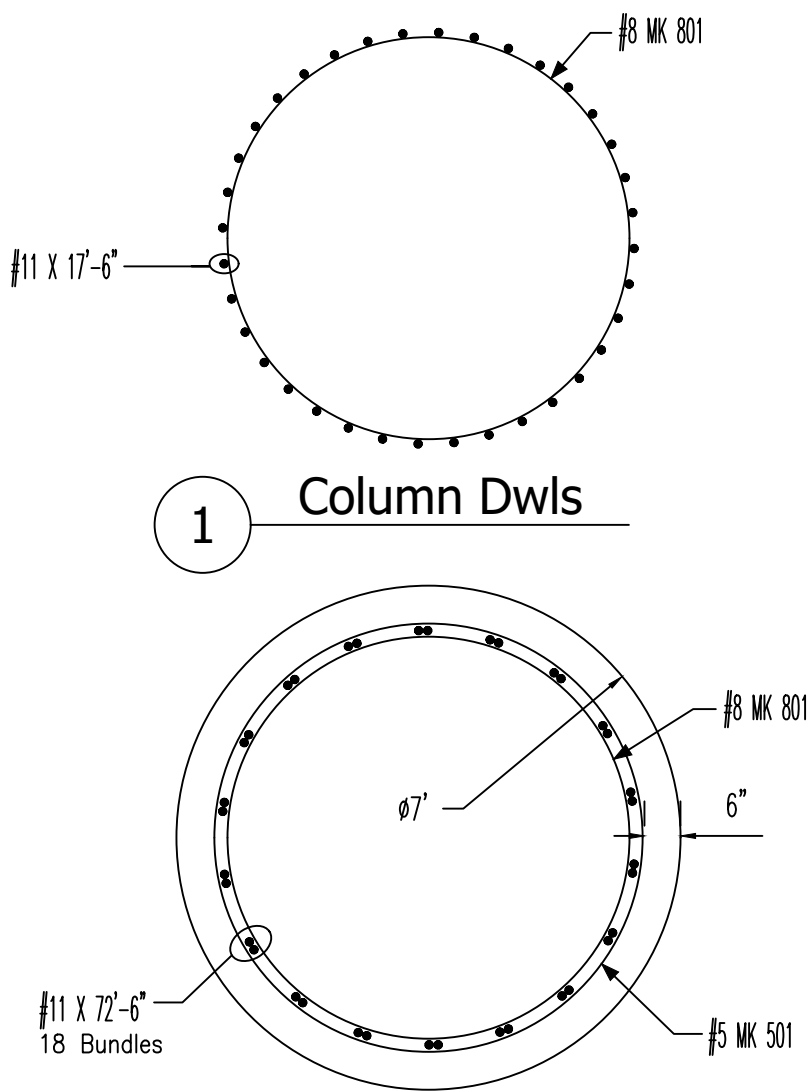
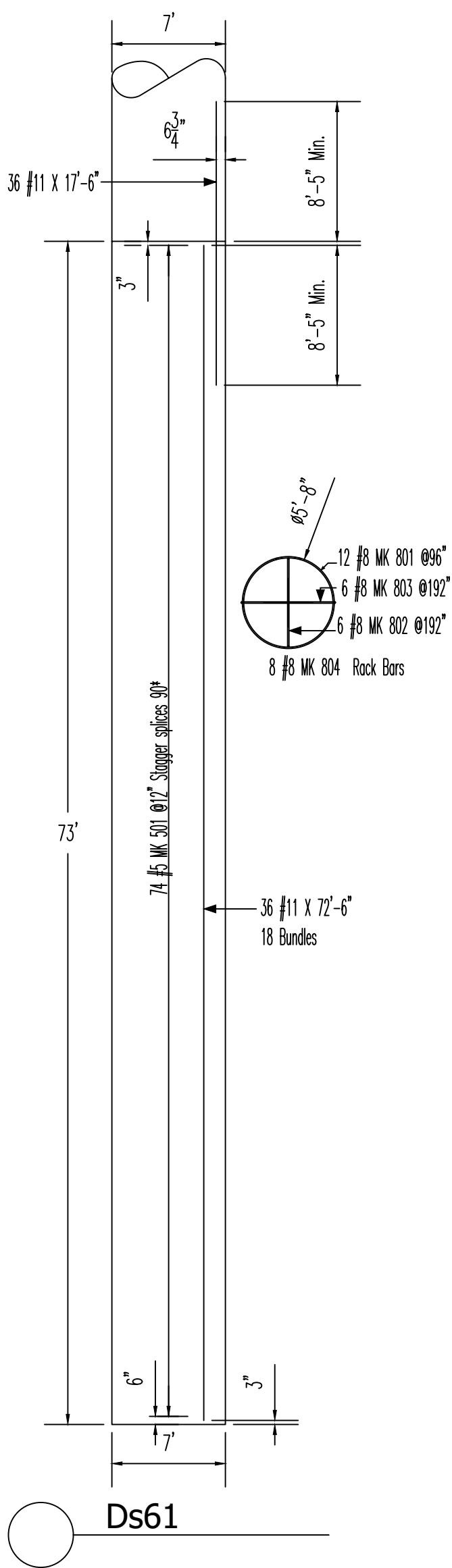
BAR LIST												
Member Title :	Bar Mark	Qty	Size	Total Length	Type	'a'	'b'	'c'	'd'	'e'	'f'	'g'
DS60		36	#11	75'-6"								
		36	#11	17'-6"								
	802	6	#8	8'-2"	2	1'-4"						
	803	6	#8	8'-6"	2	1'-4"						
	804	8	#8	10'-0"	3							
	501	77	#5	20'-4"	T3	1'-0"	8'-0"	18'-10"	1'-6"	5'-8"	7'-8"	
	801	12	#8	19'-3 1/2"	T3		1'-6"	17'-9 1/2"			6'-0"	5'-8"

Bar list produced by RebarCAD 2018



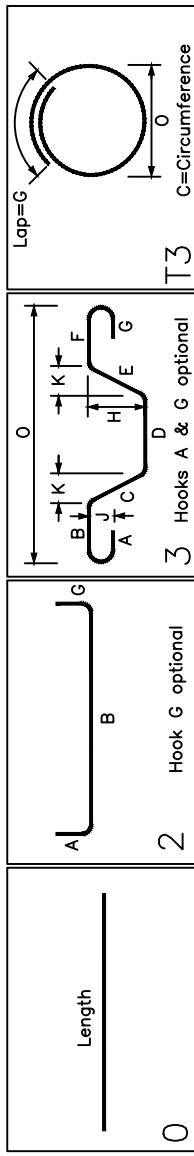
 PARADISE REFRAC	2547 WEST JACKSON ST. PHOENIX ARIZONA 85009 TEL. (602) 447-0839 FAX. (602) 447-8019				Notes/Revisions			
	Project: Sky Train Stage 2 Shafts				Rev 0_For Approval_5/7/18			
	Drawing: Section 9 Pier 60 DS60				THIS DRAWING IS NOT TO BE SCALED.			
	Contractor: Case				Fabricator Job#: 18A111			
	Location: Sky Harbor				Date	Drawn	Contract No.	Dwg. No.

5/7/18 Phil 400254 P60

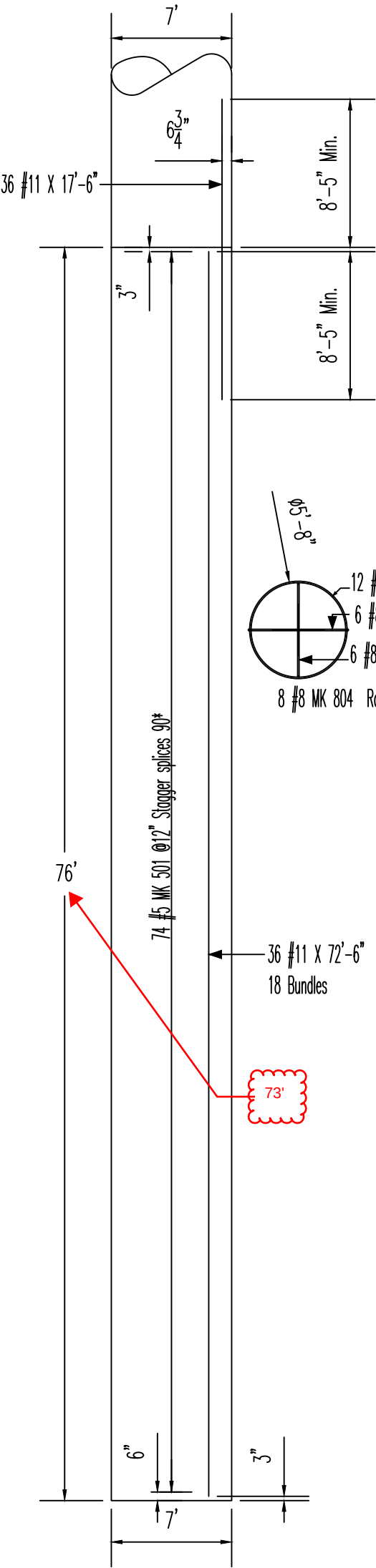


Member Title : DS61					BAR LIST											
Bar Mark	Qty	Size	Total Length	Type	A'	B'	C'	D'	E'	F'	G'	H'	J'	K'	O'	R'
	36	#11	72'-6"			72'-6"										
	36	#11	17'-6"			17'-6"										
802	6	#8	8'-2"	2	1'-4"	5'-6"					1'-4"					
803	6	#8	8'-6"	2	1'-4"	5'-10"					1'-4"					
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"				5'-8"			7'-8"	
501	74	#5	20'-4"	13			18'-10"				1'-6"				6'-0"	
801	12	#8	19'-3 1/2"	13			17'-9 1/2"				1'-6"					5'-8"

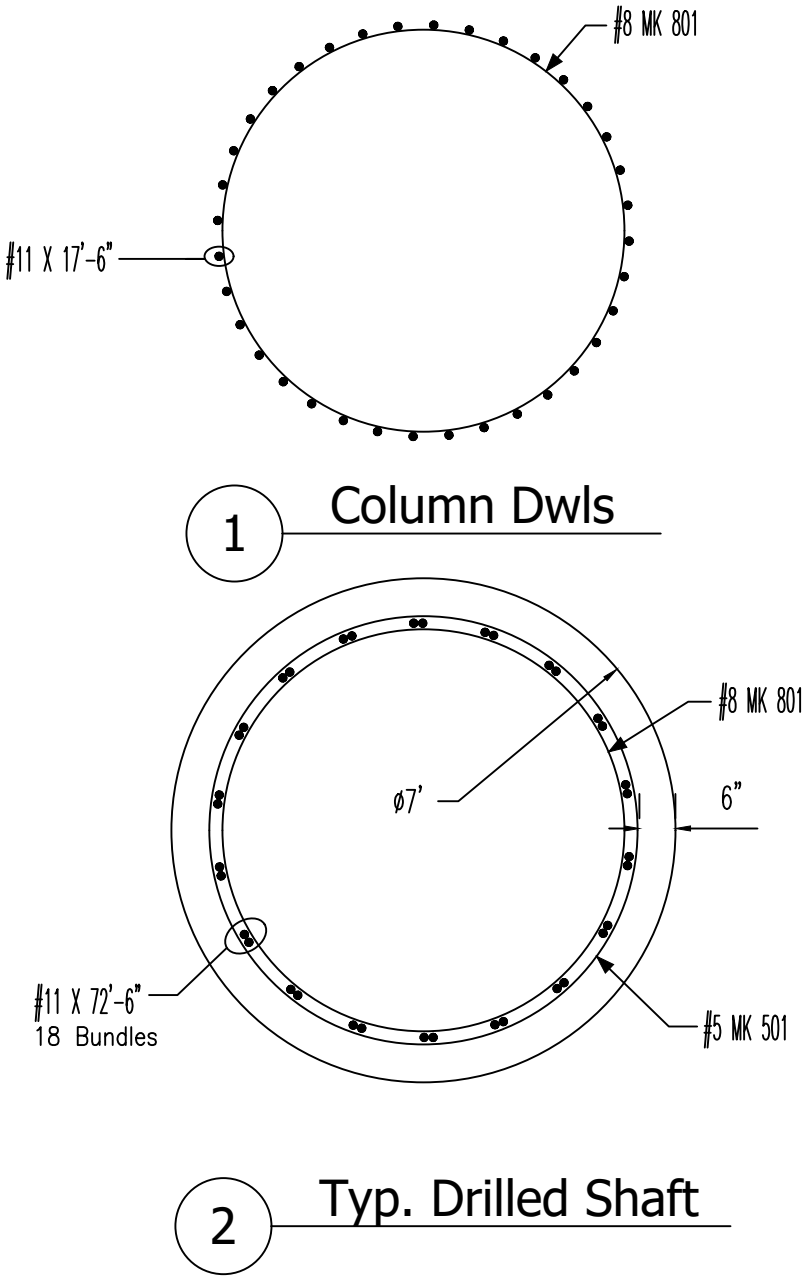
Bar list produced by RebarCAD 2018



	2547 WEST JACKSON ST. PHOENIX ARIZONA 85009 TEL. (602) 447-0839 FAX. (602) 447-8019	Notes/Revisions			
	Project: Sky Train Stage 2 Shafts	Rev 0_For Approval_5/7/18			
Drawing: Section 9 Pier 61 DS61		THIS DRAWING IS NOT TO BE SCALED.			
		Fabricator Job#: 18A111			
Contractor: Case		Date 5/7/18	Drawn Phil	Contract No. 400254	Dwg. No. P61
Location: Sky Harbor					

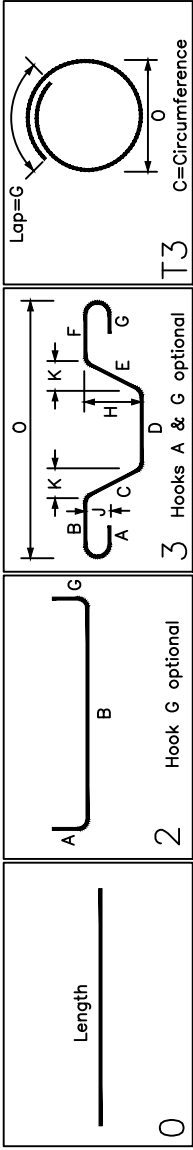


○ Ds62



BAR LIST												
Member Title :	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'
Bar Mark	36	#11	17'-6"			17'-6"						'R'
	36	#11	72'-6"			72'-6"						'U'
803	6	#8	8'-6"	2	1'-4"	5'-10"				1'-4"		
802	6	#8	8'-2"	2	1'-4"	5'-6"				1'-4"		
804	8	#8	10'-0"	3		1'-0"	8'-0"	1'-0"		5'-8"		
501	74	#5	20'-4"	T3			18'-10"			1'-6"		
801	12	#8	19'-3 1/2"	T3			17'-9 1/2"			1'-6"		

Bar list produced by RebarCAD 2018



	2547 WEST JACKSON ST. PHOENIX ARIZONA 85009 TEL. (602) 447-0839 FAX. (602) 447-8019		Notes/Revisions	
	Project: Sky Train Stage 2 Shafts		Rev 0_For Approval_5/7/18	
	Drawing: Section 9 Pier 62 DS62		THIS DRAWING IS NOT TO BE SCALED.	
	Contractor: Case		Fabricator Job#: 18A111	
Location: Sky Harbor		Date 5/7/18	Drawn Phil	Contract No. 400254
				Dwg. No. P62