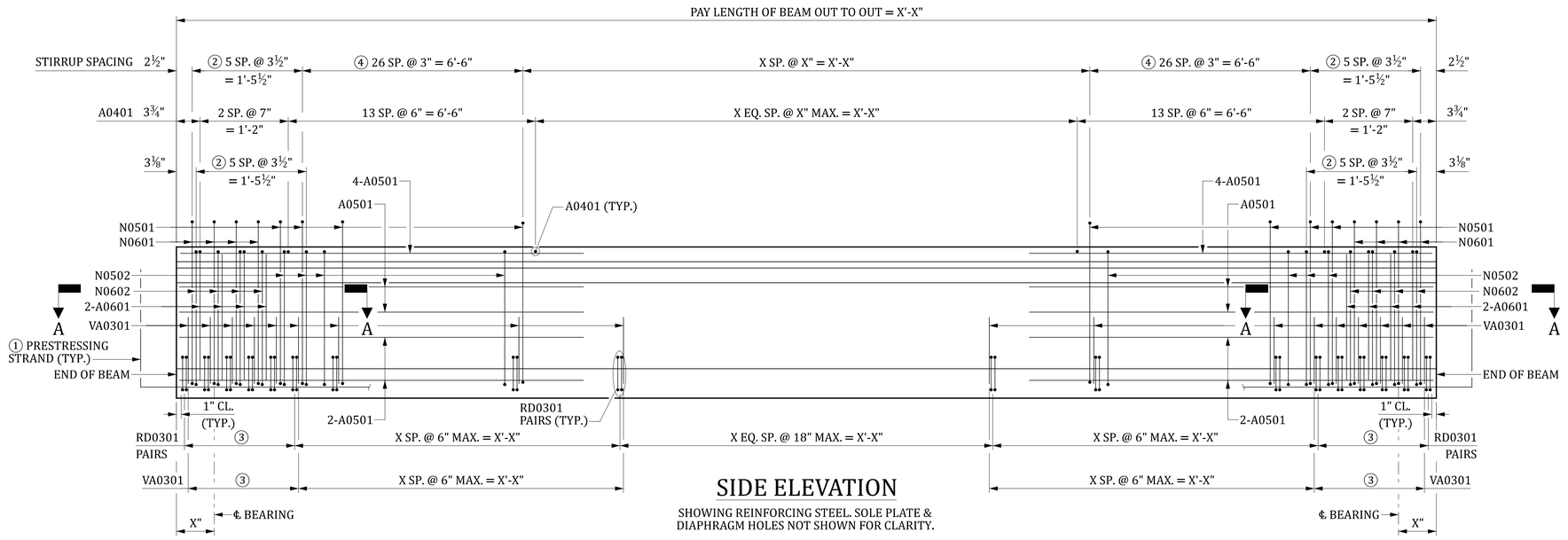
BRIDGE PLANS ID	SHEET
####-####	001



SIDE ELEVATION

SHOWING REINFORCING STEEL. SOLE PLATE & DIAPHRAGM HOLES NOT SHOWN FOR CLARITY.

① SEE "FLORIDA I-BEAM GENERAL DETAILS" SHEET FOR PRESTRESSED STRAND BENDING DETAILS.
② ALTERNATE ADJACENT LEG OF N05 AND N06 BARS. SEE SECTION A-A.
③ SPACE WITH N0501 AND N0601.
④ ALTERNATE N0501 AND N0502.
⑤ N0501 OR N0601.
⑥ N0502 OR N0602.

FOR INFORMATION ONLY - PAID FOR AS PRESTRESSED BEAM

BILL OF MATERIAL ONE 36" FIB

MARK	NO REQ'D	DIMENSION "a"	"b"	"c"	"d"	"e"	LENGTH
A0401	X	3'-8"	——	——	——	——	3'-8"
A0402	X	7'-0"	——	——	——	——	7'-0"
A0501	20	12'-0"	——	——	——	——	12'-0"
A0601	16	2'-7"	——	——	——	——	2'-7"
N0501	X	10"	X'-X"	10"	——	——	X'-X"
N0502	X	10"	2'-9"	10"	——	——	4'-5"
N0601	8	1'-0"	X'-X"	1'-0"	——	——	X'-X"
N0602	8	1'-0"	2'-9"	1'-0"	——	——	4'-9"
RD0301	X	2'-0"	3¼"	10"	1'-3"	4½"	4'-5"
VA0301	X	6¾"	11½"	7¾"	8½"	——	3'-2"
U0501	X	2'-2"	4"	——	——	——	4'-8"

QUANTITIES

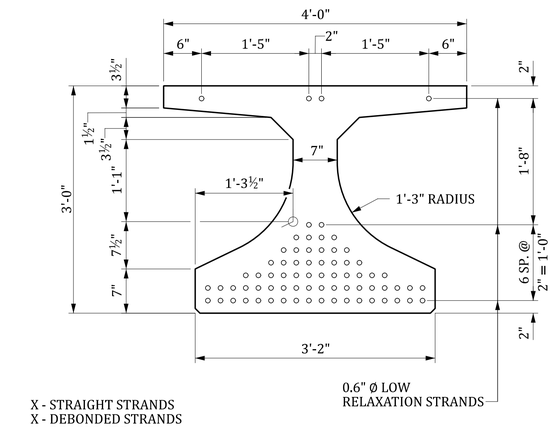
ITEM	UNIT	ONE BEAM
CONCRETE, f'c X,XXX	CY	XXXX.X
REINFORCING STEEL	LB	XXXX
0.6" Ø L.R. STRANDS	LF	XXXX
STRUCTURAL STEEL	LS	AS NECESSARY

DESIGN DATA

STRANDS:
0.6" Ø LOW RELAXATION GRADE 270
AREA=0.217 SQ. IN.
TENSIONING LOAD = 43.9 KIPS

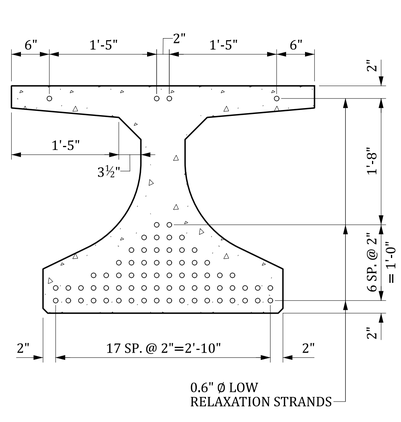
CONCRETE:
f'c =X.X KSI
f'ci =X.X KSI

- • REINFORCEMENT STEEL
- ○ FULLY BONDED STRANDS
- ① △ FULLY BONDED STRANDS TO BE EXTENDED
- ◇ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM
- ⬡ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM



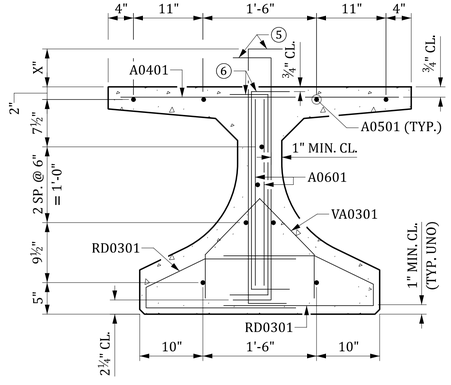
X - STRAIGHT STRANDS
X - DEBONDED STRANDS
X - DRAPED STRANDS

AT END OF BEAM



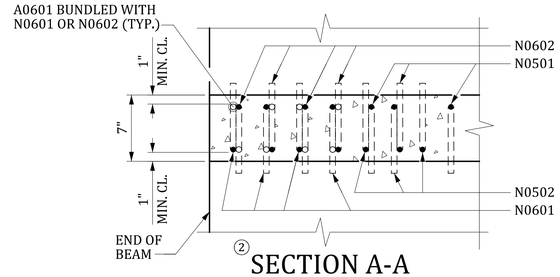
AT CENTER OF BEAM

STRAND LAYOUT



SECTION THRU BEAM

STRANDS NOT SHOWN FOR CLARITY.



SECTION A-A

SHOWING BARS N0501, N0502, N0601, N0602 & A0601 ONLY.

CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PRESTRESSED CONCRETE BEAM 36'' FLORIDA I-BEAM SPAN X

COUNTY: ####
ROUTE: ####

DRAWING NUMBER: 704-FIB.36.SPXXX

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				

Dylan.Danks 6/18/2024 10:08:55 AM 704_FIB.dgn

REVIEWED	BY	CHK.	DATE
QUAN.	DMD	AEL.	04-24
DR.			
DES.			

BRIDGE PLANS ID	SHEET
####-####	002

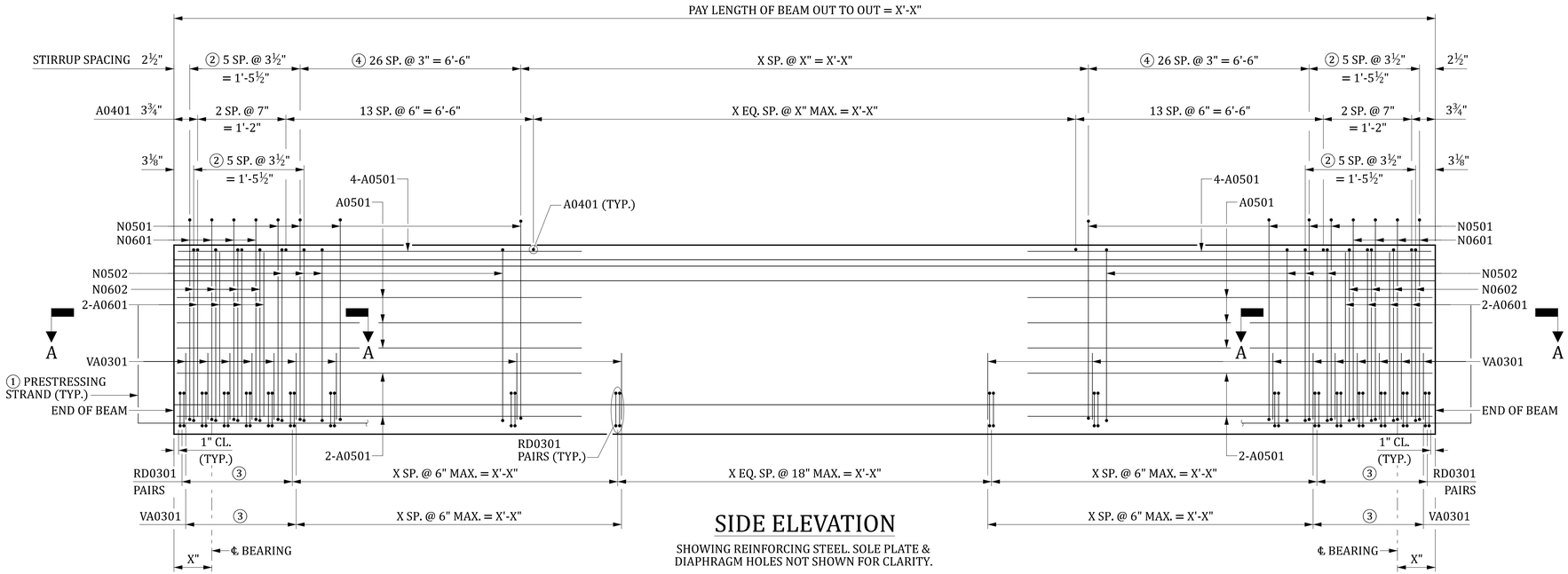
FOR INFORMATION ONLY - PAID FOR AS PRESTRESSED BEAM

BILL OF MATERIAL ONE 45" FIB

MARK	NO REQ'D	DIMENSION "a"	"b"	"c"	"d"	"e"	LENGTH
A0401	X	3'-8"	——	——	——	——	3'-8"
A0402	X	7'-0"	——	——	——	——	7'-0"
A0501	22	12'-0"	——	——	——	——	12'-0"
A0601	16	3'-4"	——	——	——	——	3'-4"
N0501	X	10"	X'-X"	10"	——	——	X'-X"
N0502	X	10"	3'-6"	10"	——	——	5'-2"
N0601	8	1'-0"	X'-X"	1'-0"	——	——	X'-X"
N0602	8	1'-0"	3'-6"	1'-0"	——	——	5'-6"
RD0301	X	2'-0"	3¼"	10"	1'-3"	4½"	4'-5"
VA0301	X	6¾"	11½"	7¾"	8½"	——	3'-2"
U0501	X	2'-11"	4"	——	——	——	6'-2"

QUANTITIES

ITEM	UNIT	ONE BEAM
CONCRETE, f'c X,XXX	CY	XXXX.X
REINFORCING STEEL	LB	XXXX
0.6" Ø L.R. STRANDS	LF	XXXX
STRUCTURAL STEEL	LS	AS NECESSARY



SIDE ELEVATION

SHOWING REINFORCING STEEL. SOLE PLATE & DIAPHRAGM HOLES NOT SHOWN FOR CLARITY.

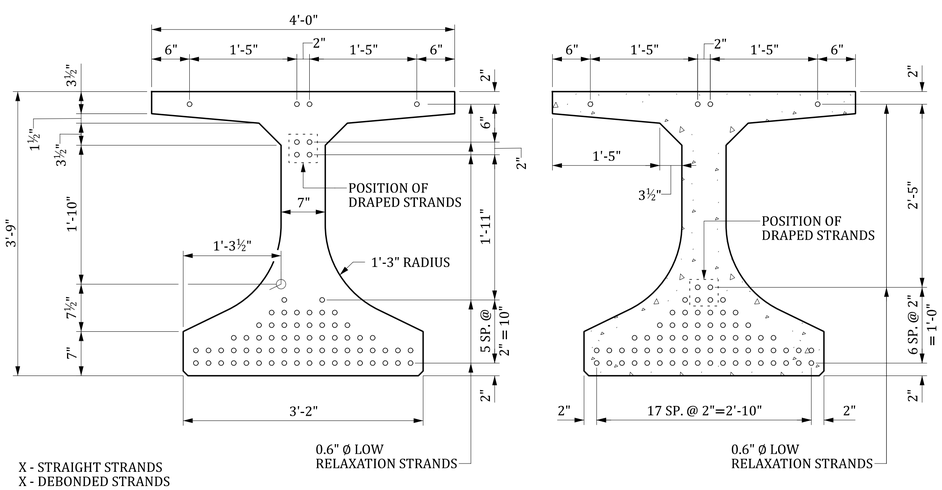
DESIGN DATA

STRANDS:
0.6" Ø LOW RELAXATION GRADE 270
AREA=0.217 SQ. IN.
TENSIONING LOAD = 43.9 KIPS

CONCRETE:
f'c =X.X KSI
f'ci =X.X KSI

- • REINFORCEMENT STEEL
- ○ FULLY BONDED STRANDS
- ① △ FULLY BONDED STRANDS TO BE EXTENDED
- ◇ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM
- ⬠ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM

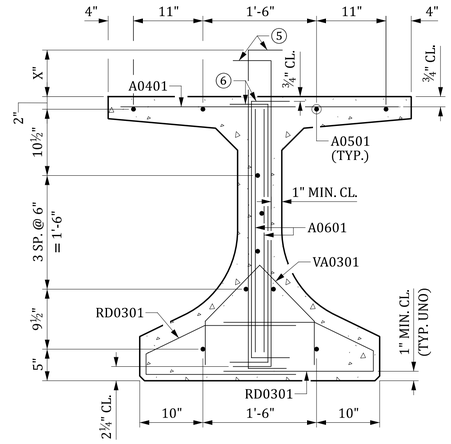
① SEE "FLORIDA I-BEAM GENERAL DETAILS" SHEET FOR PRESTRESSED STRAND BENDING DETAILS.
② ALTERNATE ADJACENT LEG OF N05 AND N06 BARS. SEE SECTION A-A.
③ SPACE WITH N0501 AND N0601.
④ ALTERNATE N0501 AND N0502.
⑤ N0501 OR N0601.
⑥ N0502 OR N0602.



X - STRAIGHT STRANDS
X - DEBONDED STRANDS
X - DRAPED STRANDS

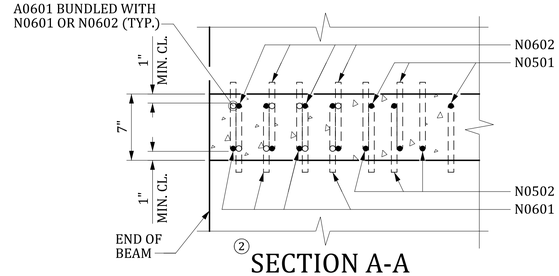
AT END OF BEAM AT CENTER OF BEAM

STRAND LAYOUT



SECTION THRU BEAM

STRANDS NOT SHOWN FOR CLARITY.



SECTION A-A

SHOWING BARS N0501, N0502, N0601, N0602 & A0601 ONLY.

CONSULTANT NAME/LOGO

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PRESTRESSED CONCRETE BEAM 45'' FLORIDA I-BEAM SPAN X

COUNTY: ####
ROUTE: ####

DRAWING NUMBER: 704-FIB.45.SPXXX

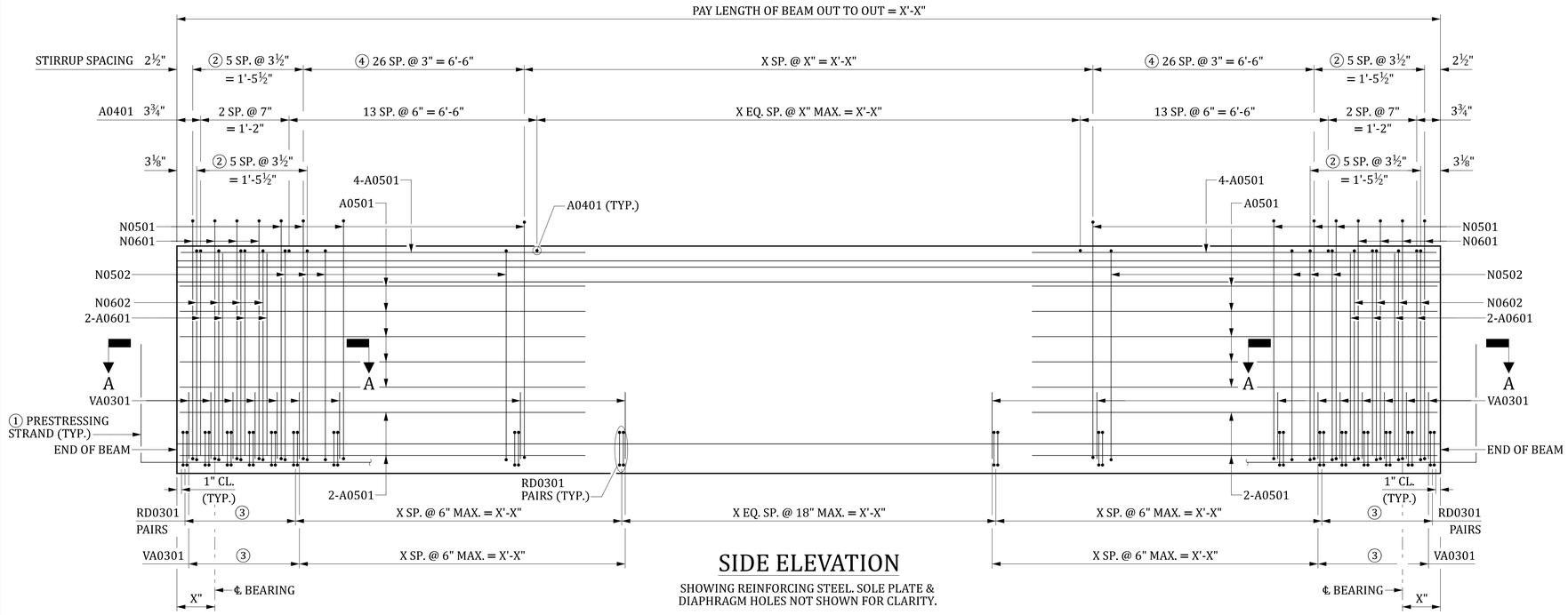
THIS DRAWING IS FURNISHED FOR INFORMATION ONLY. ALL DIMENSIONS SHOWN ARE SHEET SPECIFIC. ANY USE OF THIS DESIGN AND DRAWING, INCLUDING DIMENSIONS, MUST BE CHECKED BY THE USER'S ENGINEER TO ENSURE DESIGN IS ADEQUATE FOR THE INTENDED USE. ALL DRAWINGS MUST BE SIGNED AND SEALED BY A SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER WHEN USED.

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				

Dylan.Danks 6/18/2024 10:08:56 AM 704_FIB.dgn

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

BRIDGE PLANS ID	SHEET
####-####	003



SIDE ELEVATION

SHOWING REINFORCING STEEL. SOLE PLATE & DIAPHRAGM HOLES NOT SHOWN FOR CLARITY.

BILL OF MATERIAL ONE 54" FIB

FOR INFORMATION ONLY - PAID FOR AS PRESTRESSED BEAM

MARK	NO REQ'D	DIMENSION "a"	"b"	"c"	"d"	"e"	LENGTH
A0401	X	3'-8"	——	——	——	——	3'-8"
A0402	X	7'-0"	——	——	——	——	7'-0"
A0501	26	12'-0"	——	——	——	——	12'-0"
A0601	16	4'-1"	——	——	——	——	4'-1"
N0501	X	10"	X'-X"	10"	——	——	X'-X"
N0502	X	10"	4'-3"	10"	——	——	5'-11"
N0601	8	1'-0"	X'-X"	1'-0"	——	——	X'-X"
N0602	8	1'-0"	4'-3"	1'-0"	——	——	6'-3"
RD0301	X	2'-0"	3¼"	10"	1'-3"	4½"	4'-5"
VA0301	X	6¾"	11½"	7¾"	8½"	——	3'-2"
U0501	X	3'-8"	4"	——	——	——	7'-8"

QUANTITIES

ITEM	UNIT	ONE BEAM
CONCRETE, f'c X,XXX	CY	XXXX.X
REINFORCING STEEL	LB	XXXX
0.6" Ø L.R. STRANDS	LF	XXXX
STRUCTURAL STEEL	LS	AS NECESSARY

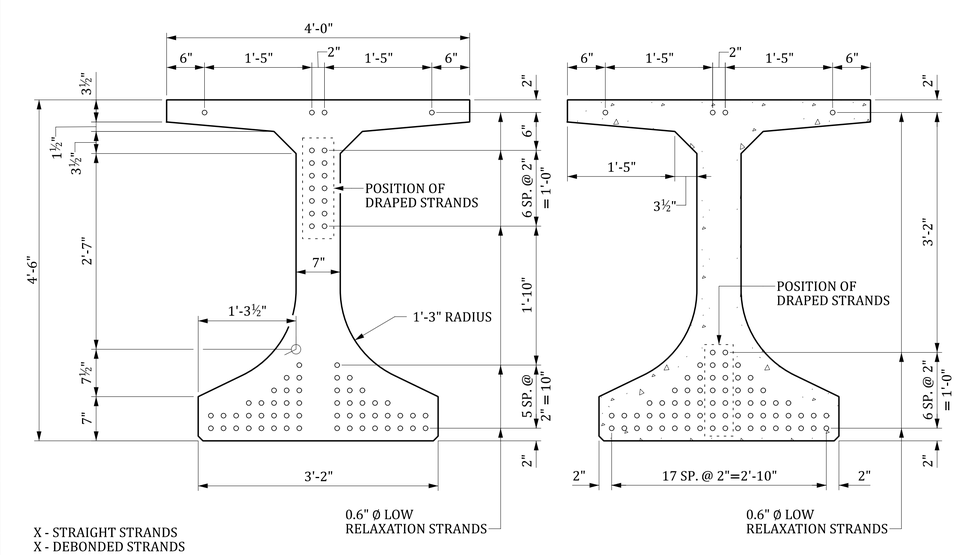
DESIGN DATA

STRANDS:
0.6" Ø LOW RELAXATION GRADE 270
AREA=0.217 SQ. IN.
TENSIONING LOAD = 43.9 KIPS

CONCRETE:
f'c =X.X KSI
f'ci =X.X KSI

- • REINFORCEMENT STEEL
- ○ FULLY BONDED STRANDS
- ① △ FULLY BONDED STRANDS TO BE EXTENDED
- ◇ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM
- ⬡ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM

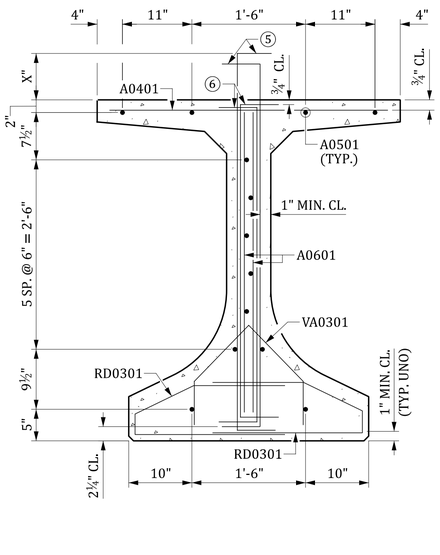
① SEE "FLORIDA I-BEAM GENERAL DETAILS" SHEET FOR PRESTRESSED STRAND BENDING DETAILS.
② ALTERNATE ADJACENT LEG OF N05 AND N06 BARS. SEE SECTION A-A.
③ SPACE WITH N0501 AND N0601.
④ ALTERNATE N0501 AND N0502.
⑤ N0501 OR N0601.
⑥ N0502 OR N0602.



AT END OF BEAM

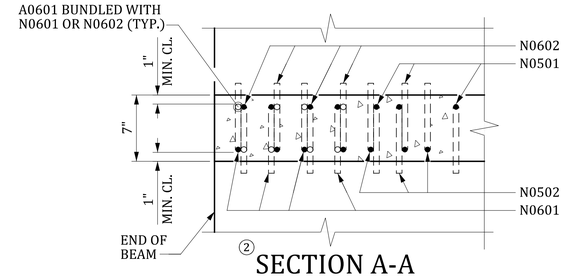
AT CENTER OF BEAM

STRAND LAYOUT



SECTION THRU BEAM

STRANDS NOT SHOWN FOR CLARITY.



SECTION A-A

SHOWING BARS N0501, N0502, N0601, N0602 & A0601 ONLY.

CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PRESTRESSED CONCRETE BEAM 54'' FLORIDA I-BEAM SPAN X

COUNTY: ####
ROUTE: ####

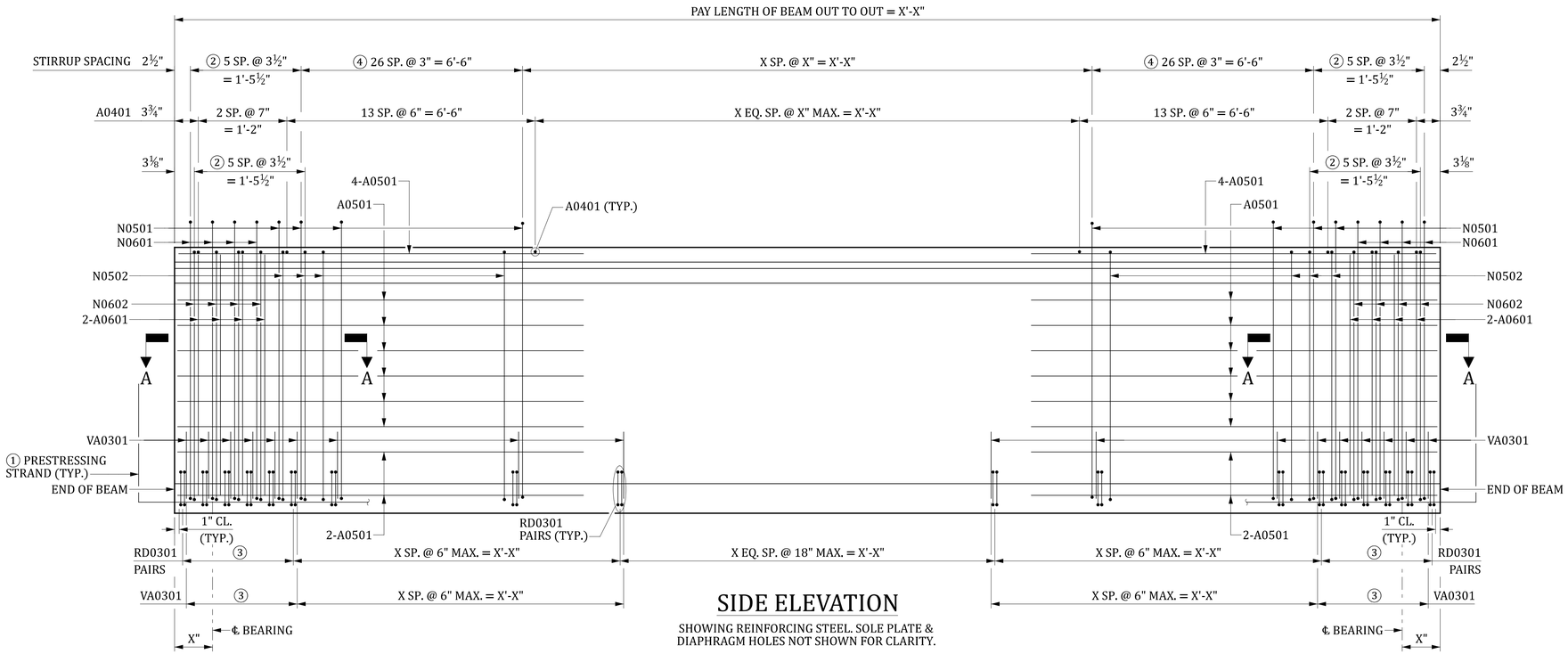
DRAWING NUMBER: 704-FIB.54.SPXXX

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

Dylan.Danks 6/18/2024 10:08:57 AM 704_FIB.dgn

BRIDGE PLANS ID	SHEET
####-####	004



SIDE ELEVATION

SHOWING REINFORCING STEEL. SOLE PLATE & DIAPHRAGM HOLES NOT SHOWN FOR CLARITY.

FOR INFORMATION ONLY - PAID FOR AS PRESTRESSED BEAM

BILL OF MATERIAL ONE 63" FIB

MARK	NO REQ'D	DIMENSION "a"	"b"	"c"	"d"	"e"	LENGTH
A0401	X	3'-8"	——	——	——	——	3'-8"
A0402	X	7'-0"	——	——	——	——	7'-0"
A0501	28	12'-0"	——	——	——	——	12'-0"
A0601	16	4'-10"	——	——	——	——	4'-10"
N0501	X	10"	X'-X"	10"	——	——	X'-X"
N0502	X	10"	5'-0"	10"	——	——	6'-8"
N0601	8	1'-0"	X'-X"	1'-0"	——	——	X'-X"
N0602	8	1'-0"	5'-0"	1'-0"	——	——	7'-0"
RD0301	X	2'-0"	3¼"	10"	1'-3"	4½"	4'-5"
VA0301	X	6¾"	11½"	7¾"	8½"	——	3'-2"
U0501	X	4'-5"	4"	——	——	——	9'-2"

QUANTITIES

ITEM	UNIT	ONE BEAM
CONCRETE, f'c X,XXX	CY	XXXX.X
REINFORCING STEEL	LB	XXXX
0.6" Ø L.R. STRANDS	LF	XXXX
STRUCTURAL STEEL	LS	AS NECESSARY

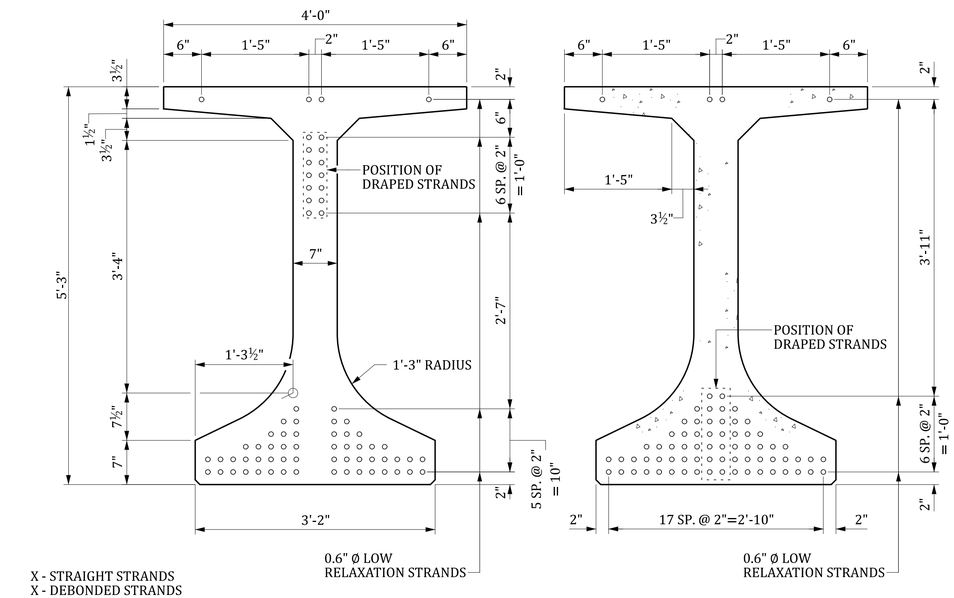
DESIGN DATA

STRANDS:
0.6" Ø LOW RELAXATION GRADE 270
AREA=0.217 SQ. IN.
TENSIONING LOAD = 43.9 KIPS

CONCRETE:
f'c =X.X KSI
f'ci =X.X KSI

- • REINFORCEMENT STEEL
- ○ FULLY BONDED STRANDS
- ① △ FULLY BONDED STRANDS TO BE EXTENDED
- ◇ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM
- ⬡ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM

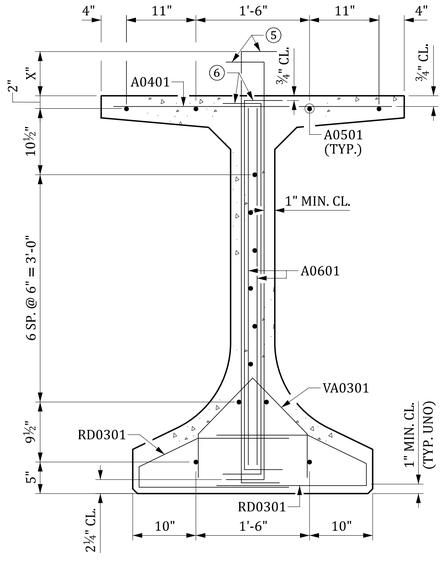
① SEE "FLORIDA I-BEAM GENERAL DETAILS" SHEET FOR PRESTRESSED STRAND BENDING DETAILS.
② ALTERNATE ADJACENT LEG OF N05 AND N06 BARS. SEE SECTION A-A.
③ SPACE WITH N0501 AND N0601.
④ ALTERNATE N0501 AND N0502.
⑤ N0501 OR N0601.
⑥ N0502 OR N0602.



X - STRAIGHT STRANDS
X - DEBONDED STRANDS
X - DRAPED STRANDS

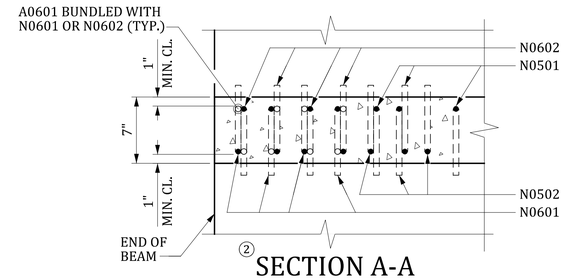
AT END OF BEAM — AT CENTER OF BEAM

STRAND LAYOUT



SECTION THRU BEAM

STRANDS NOT SHOWN FOR CLARITY.



SECTION A-A

SHOWING BARS N0501, N0502, N0601, N0602 & A0601 ONLY.

CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PRESTRESSED CONCRETE BEAM 63'' FLORIDA I-BEAM SPAN X

COUNTY: ####
ROUTE: ####

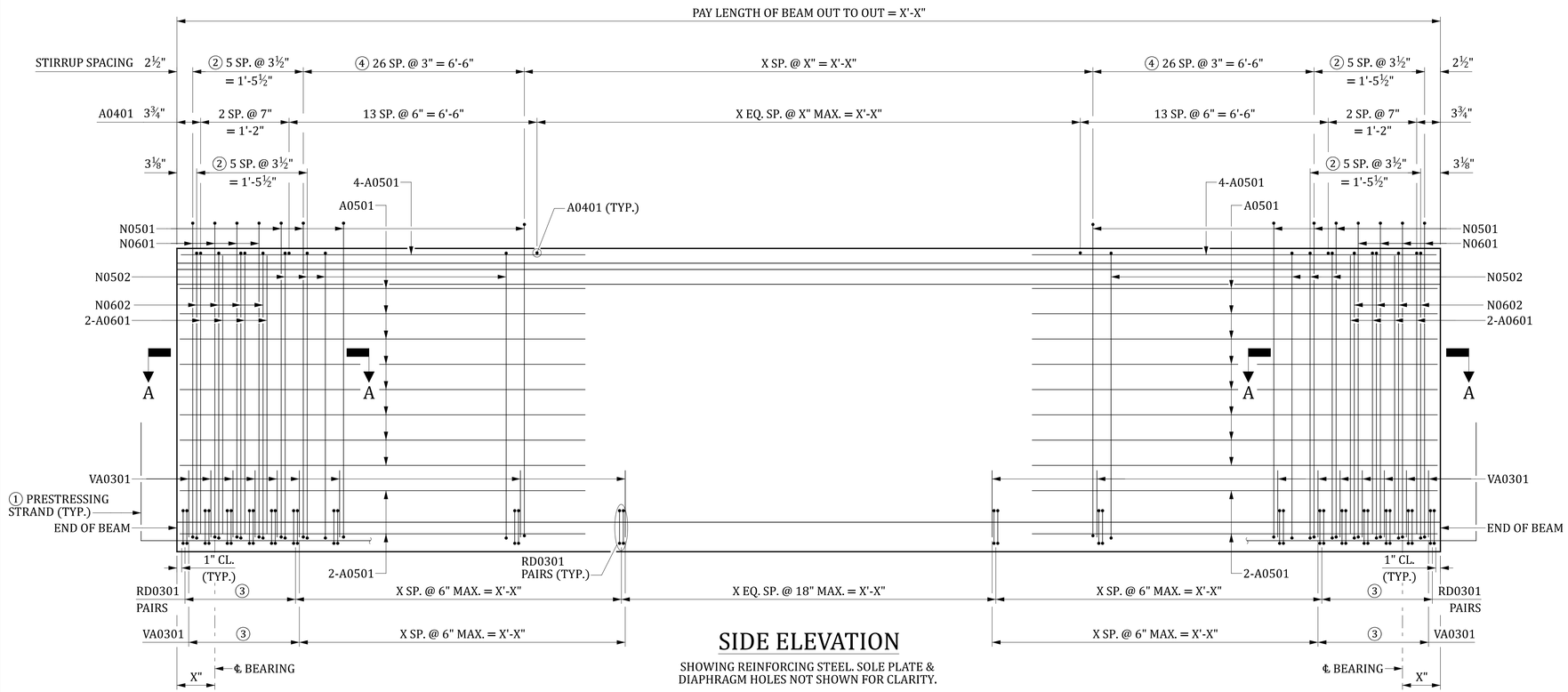
DRAWING NUMBER: 704-FIB.63.SPXXX

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				

Dylan.Danks 6/18/2024 10:08:57 AM 704_FIB.dgn

REVIEWED	BY	CHK.	DATE
QUAN.	DMD	AEL	04-24
DR.			
DES.			

BRIDGE PLANS ID	SHEET
####-####	005



SIDE ELEVATION

SHOWING REINFORCING STEEL. SOLE PLATE & DIAPHRAGM HOLES NOT SHOWN FOR CLARITY.

FOR INFORMATION ONLY - PAID FOR AS PRESTRESSED BEAM

BILL OF MATERIAL ONE 72" FIB

MARK	NO REQ'D	DIMENSION "a"	"b"	"c"	"d"	"e"	LENGTH
A0401	X	3'-8"	——	——	——	——	3'-8"
A0402	X	7'-0"	——	——	——	——	7'-0"
A0501	32	12'-0"	——	——	——	——	12'-0"
A0601	16	5'-7"	——	——	——	——	5'-7"
N0501	X	10"	X'-X"	10"	——	——	X'-X"
N0502	X	10"	5'-9"	10"	——	——	7'-5"
N0601	8	1'-0"	X'-X"	1'-0"	——	——	X'-X"
N0602	8	1'-0"	5'-9"	1'-0"	——	——	7'-9"
RD0301	X	2'-0"	3¼"	10"	1'-3"	4½"	4'-5"
VA0301	X	6¾"	11½"	7¾"	8½"	——	3'-2"
U0501	X	5'-2"	4"	——	——	——	10'-8"

QUANTITIES

ITEM	UNIT	ONE BEAM
CONCRETE, f'c X,XXX	CY	XXXX.X
REINFORCING STEEL	LB	XXXX
0.6" Ø L.R. STRANDS	LF	XXXX
STRUCTURAL STEEL	LS	AS NECESSARY

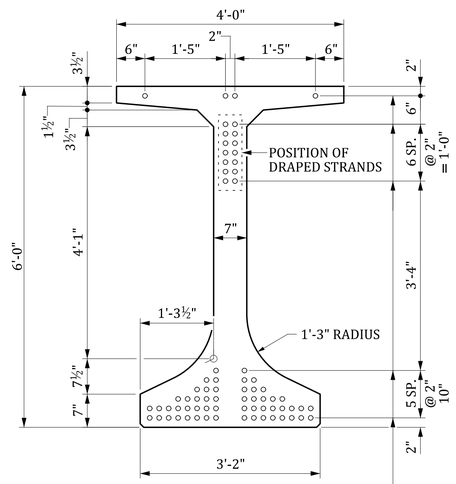
DESIGN DATA

STRANDS:
0.6" Ø LOW RELAXATION GRADE 270
AREA=0.217 SQ. IN.
TENSIONING LOAD = 43.9 KIPS

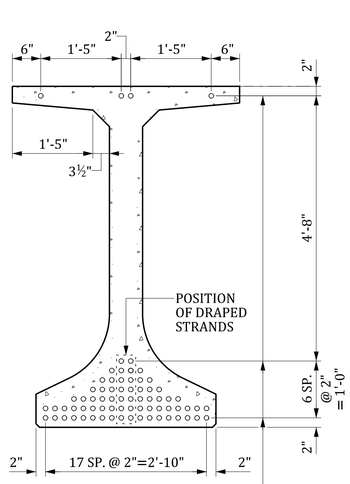
CONCRETE:
f'c =X.X KSI
f'ci =X.X KSI

- • REINFORCEMENT STEEL
- ○ FULLY BONDED STRANDS
- ① △ FULLY BONDED STRANDS TO BE EXTENDED
- ◇ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM
- ⬠ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM

① SEE "FLORIDA I-BEAM GENERAL DETAILS" SHEET FOR PRESTRESSED STRAND BENDING DETAILS.
② ALTERNATE ADJACENT LEG OF N05 AND N06 BARS. SEE SECTION A-A.
③ SPACE WITH N0501 AND N0601.
④ ALTERNATE N0501 AND N0502.
⑤ N0501 OR N0601.
⑥ N0502 OR N0602.



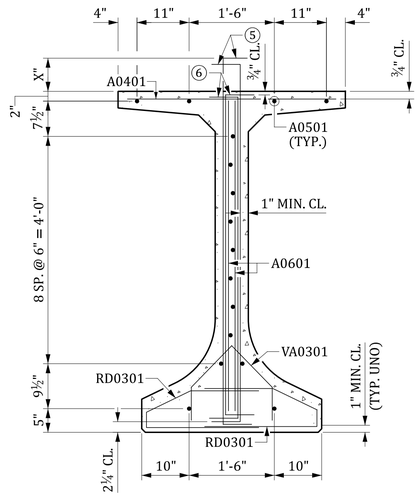
AT END OF BEAM



AT CENTER OF BEAM

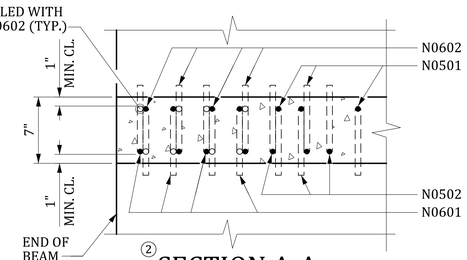
X - STRAIGHT STRANDS
X - DEBONDED STRANDS
X - DRAPED STRANDS

STRAND LAYOUT



SECTION THRU BEAM

STRANDS NOT SHOWN FOR CLARITY.



② SECTION A-A

SHOWING BARS N0501, N0502, N0601, N0602 & A0601 ONLY.

CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PRESTRESSED CONCRETE BEAM
72'' FLORIDA I-BEAM SPAN X

COUNTY: ####
ROUTE: ####

DRAWING NUMBER: 704-FIB.72.SPXXX

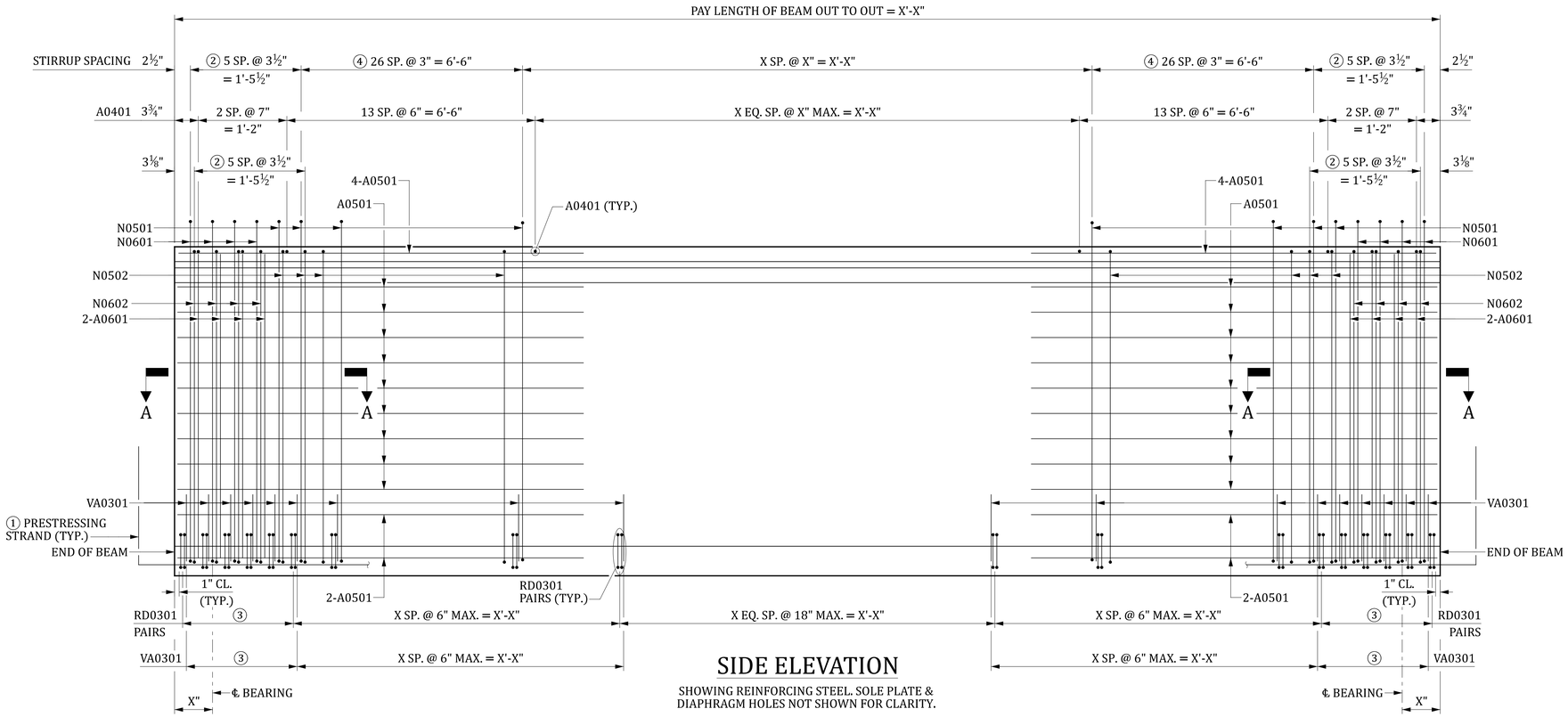
THIS DRAWING IS FURNISHED FOR INFORMATION ONLY. ALL DIMENSIONS SHOWN ARE SHEET SPECIFIC. ANY USE OF THIS DESIGN AND DRAWING, INCLUDING DIMENSIONS, MUST BE CHECKED BY THE USER'S ENGINEER TO ENSURE DESIGN IS ADEQUATE FOR THE INTENDED USE. ALL DRAWINGS MUST BE SIGNED AND SEALED BY A SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER WHEN USED.

REVIEWED		
QUAN.	DMD	AEL
DR.		04-24
DES.		
BY	CHK.	DATE

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				

Dylan.Danks 6/18/2024 10:08:58 AM 704_FIB.dgn

BRIDGE PLANS ID	SHEET
####-####	006



SIDE ELEVATION

SHOWING REINFORCING STEEL. SOLE PLATE & DIAPHRAGM HOLES NOT SHOWN FOR CLARITY.

FOR INFORMATION ONLY - PAID FOR AS PRESTRESSED BEAM

BILL OF MATERIAL ONE 78" FIB

MARK	NO REQ'D	DIMENSION "a"	"b"	"c"	"d"	"e"	LENGTH
A0401	X	3'-8"	——	——	——	——	3'-8"
A0402	X	7'-0"	——	——	——	——	7'-0"
A0501	34	12'-0"	——	——	——	——	12'-0"
A0601	16	6'-1"	——	——	——	——	6'-1"
N0501	X	10"	X'-X"	10"	——	——	X'-X"
N0502	X	10"	6'-3"	10"	——	——	7'-11"
N0601	8	1'-0"	X'-X"	1'-0"	——	——	X'-X"
N0602	8	1'-0"	6'-3"	1'-0"	——	——	8'-3"
RD0301	X	2'-0"	3¼"	10"	1'-3"	4½"	4'-5"
VA0301	X	6¾"	11½"	7¾"	8½"	——	3'-2"
U0501	X	5'-8"	4"	——	——	——	11'-8"

QUANTITIES

ITEM	UNIT	ONE BEAM
CONCRETE, f'c X,XXX	CY	XXXX.X
REINFORCING STEEL	LB	XXXX
0.6" Ø L.R. STRANDS	LF	XXXX
STRUCTURAL STEEL	LS	AS NECESSARY

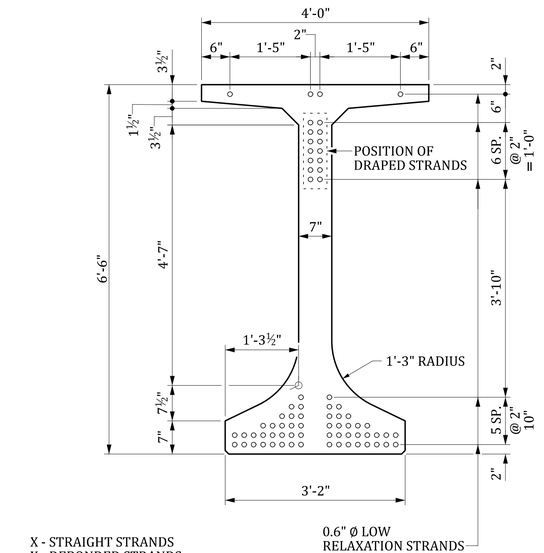
DESIGN DATA

STRANDS:
0.6" Ø LOW RELAXATION GRADE 270
AREA=0.217 SQ. IN.
TENSIONING LOAD = 43.9 KIPS

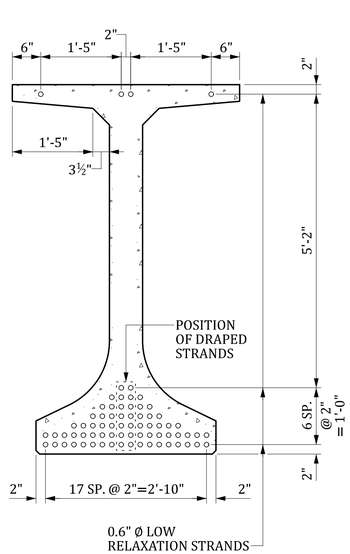
CONCRETE:
f'c =X.X KSI
f'ci =X.X KSI

- • REINFORCEMENT STEEL
- ○ FULLY BONDED STRANDS
- ① △ FULLY BONDED STRANDS TO BE EXTENDED
- ◇ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM
- ⬡ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM

① SEE "FLORIDA I-BEAM GENERAL DETAILS" SHEET FOR PRESTRESSED STRAND BENDING DETAILS.
② ALTERNATE ADJACENT LEG OF N05 AND N06 BARS. SEE SECTION A-A.
③ SPACE WITH N0501 AND N0601.
④ ALTERNATE N0501 AND N0502.
⑤ N0501 OR N0601.
⑥ N0502 OR N0602.



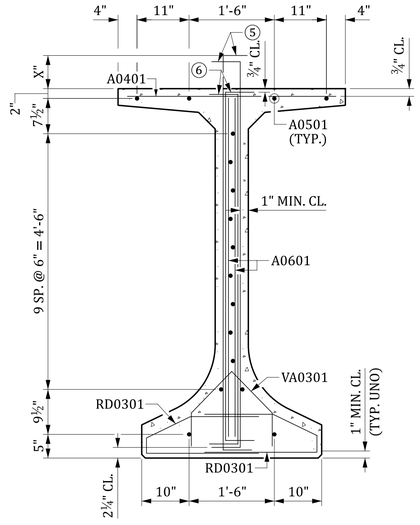
AT END OF BEAM



AT CENTER OF BEAM

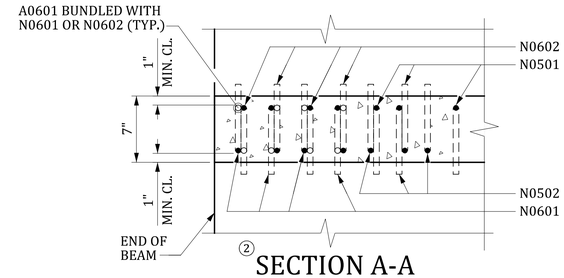
X - STRAIGHT STRANDS
X - DEBONDED STRANDS
X - DRAPED STRANDS

STRAND LAYOUT



SECTION THRU BEAM

STRANDS NOT SHOWN FOR CLARITY.



② SECTION A-A

SHOWING BARS N0501, N0502, N0601, N0602 & A0601 ONLY.

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

Dylan.Danks 6/18/2024 10:08:59 AM 704_FIB.dgn

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

CONSULTANT NAME/LOGO

THIS DRAWING IS FURNISHED FOR INFORMATION ONLY. ALL DIMENSIONS SHOWN ARE SHEET SPECIFIC. ANY USE OF THIS DESIGN AND DRAWING, INCLUDING DIMENSIONS, MUST BE CHECKED BY THE USER'S ENGINEER TO ENSURE DESIGN IS ADEQUATE FOR THE INTENDED USE. ALL DRAWINGS MUST BE SIGNED AND SEALED BY A SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER WHEN USED.

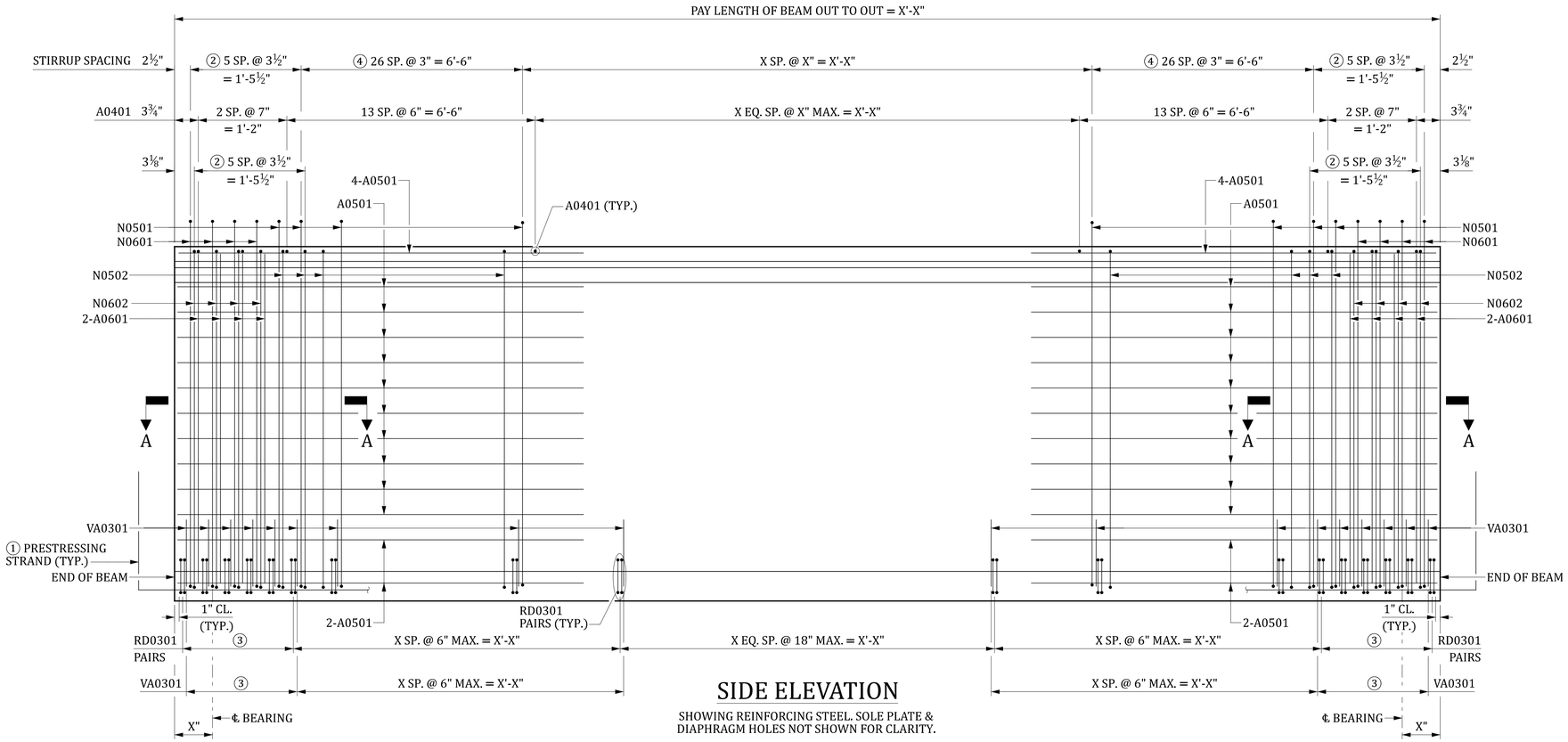
SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PRESTRESSED CONCRETE BEAM 78'' FLORIDA I-BEAM SPAN X

COUNTY: ####
ROUTE: ####

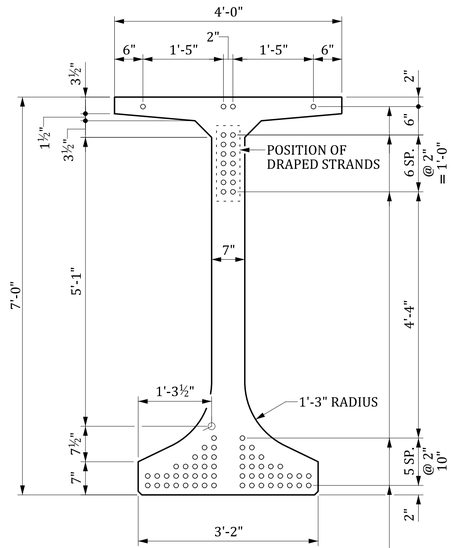
DRAWING NUMBER: 704-FIB.78.SPXXX

BRIDGE PLANS ID	SHEET
####-####	007



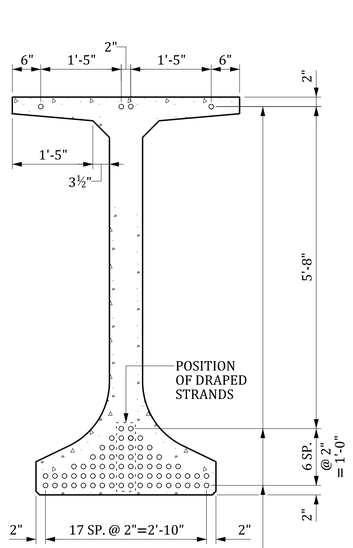
SIDE ELEVATION

SHOWING REINFORCING STEEL. SOLE PLATE & DIAPHRAGM HOLES NOT SHOWN FOR CLARITY.



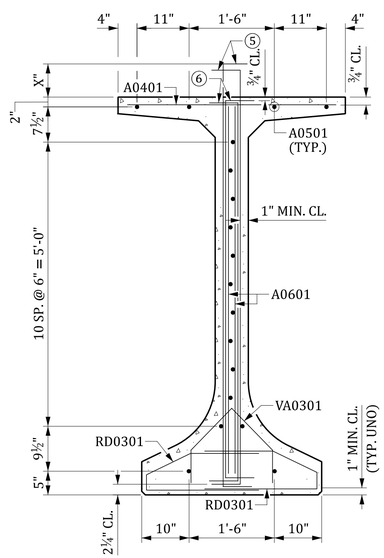
X - STRAIGHT STRANDS
X - DEBONDED STRANDS
X - DRAPED STRANDS

AT END OF BEAM



AT CENTER OF BEAM

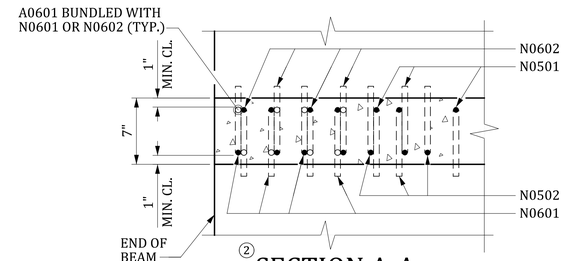
STRAND LAYOUT



SECTION THRU BEAM

STRANDS NOT SHOWN FOR CLARITY.

① SEE "FLORIDA I-BEAM GENERAL DETAILS" SHEET FOR PRESTRESSED STRAND BENDING DETAILS.
② ALTERNATE ADJACENT LEG OF N05 AND N06 BARS. SEE SECTION A-A.
③ SPACE WITH N0501 AND N0601.
④ ALTERNATE N0501 AND N0502.
⑤ N0501 OR N0601.
⑥ N0502 OR N0602.



② SECTION A-A

SHOWING BARS N0501, N0502, N0601, N0602 & A0601 ONLY.

FOR INFORMATION ONLY - PAID FOR AS PRESTRESSED BEAM

BILL OF MATERIAL ONE 84" FIB

MARK	NO REQ'D	DIMENSION "a"	"b"	"c"	"d"	"e"	LENGTH
A0401	X	3'-8"	——	——	——	——	3'-8"
A0402	X	7'-0"	——	——	——	——	7'-0"
A0501	36	12'-0"	——	——	——	——	12'-0"
A0601	16	6'-7"	——	——	——	——	6'-7"
N0501	X	10"	X'-X"	10"	——	——	X'-X"
N0502	X	10"	6'-9"	10"	——	——	8'-5"
N0601	8	1'-0"	X'-X"	1'-0"	——	——	X'-X"
N0602	8	1'-0"	6'-9"	1'-0"	——	——	8'-9"
RD0301	X	2'-0"	3¼"	10"	1'-3"	4½"	4'-5"
VA0301	X	6¾"	11½"	7¾"	8½"	——	3'-2"
U0501	X	6'-2"	4"	——	——	——	12'-8"

QUANTITIES

ITEM	UNIT	ONE BEAM
CONCRETE, f'c X,XXX	CY	XXXX.X
REINFORCING STEEL	LB	XXXX
0.6" Ø L.R. STRANDS	LF	XXXX
STRUCTURAL STEEL	LS	AS NECESSARY

DESIGN DATA

STRANDS:
0.6" Ø LOW RELAXATION GRADE 270
AREA=0.217 SQ. IN.
TENSIONING LOAD = 43.9 KIPS

CONCRETE:
f'c =X.X KSI
f'ci =X.X KSI

- • REINFORCEMENT STEEL
- ○ FULLY BONDED STRANDS
- ① △ FULLY BONDED STRANDS TO BE EXTENDED
- ◇ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM
- ⬠ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM

REVIEWED		
QUAN.		
DR.	DMD	AEL 04-24
DES.		
BY	CHK.	DATE

REV.				
REV.				
REV.				
BY	CHK.	DATE	DESCRIPTION OF REVISION	

Dylan.Danks 6/18/2024 10:08:59 AM 704_FIB.dgn

CONSULTANT NAME/LOGO

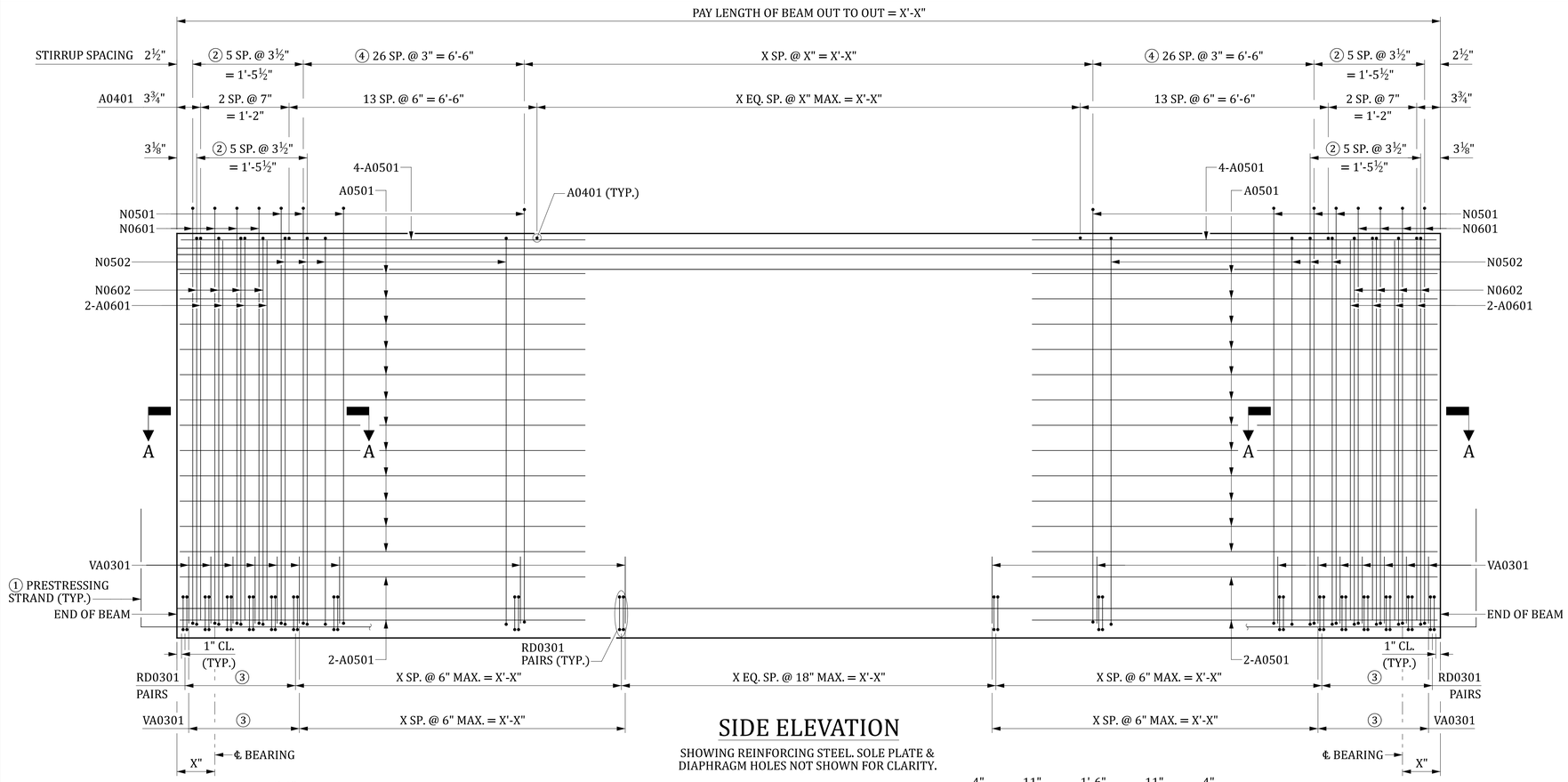
SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PRESTRESSED CONCRETE BEAM 84'' FLORIDA I-BEAM SPAN X

COUNTY: ####
ROUTE: ####

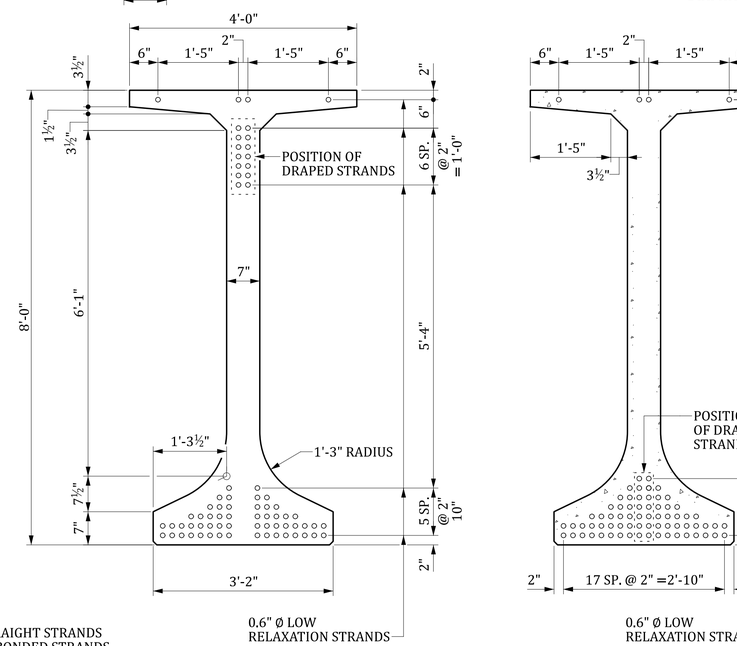
DRAWING NUMBER: 704-FIB.84.SPXXX

BRIDGE PLANS ID	SHEET
####-####	008



SIDE ELEVATION

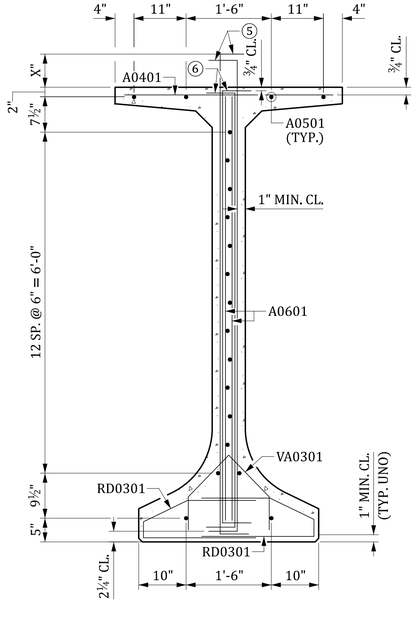
SHOWING REINFORCING STEEL. SOLE PLATE & DIAPHRAGM HOLES NOT SHOWN FOR CLARITY.



AT END OF BEAM

AT CENTER OF BEAM

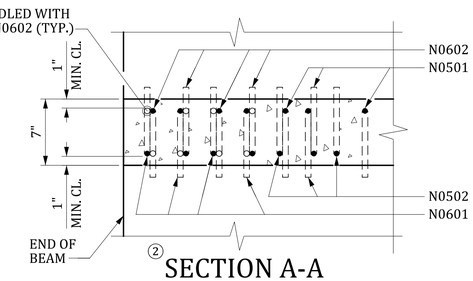
STRAND LAYOUT



SECTION THRU BEAM

STRANDS NOT SHOWN FOR CLARITY.

① SEE "FLORIDA I-BEAM GENERAL DETAILS" SHEET FOR PRESTRESSED STRAND BENDING DETAILS.
② ALTERNATE ADJACENT LEG OF N05 AND N06 BARS. SEE SECTION A-A.
③ SPACE WITH N0501 AND N0601.
④ ALTERNATE N0501 AND N0502.
⑤ N0501 OR N0601.
⑥ N0502 OR N0602.



SECTION A-A

SHOWING BARS N0501, N0502, N0601, N0602 & A0601 ONLY.

FOR INFORMATION ONLY - PAID FOR AS PRESTRESSED BEAM

BILL OF MATERIAL ONE 96" FIB

MARK	NO REQ'D	DIMENSION "a"	"b"	"c"	"d"	"e"	LENGTH
A0401	X	3'-8"	——	——	——	——	3'-8"
A0402	X	7'-0"	——	——	——	——	7'-0"
A0501	42	12'-0"	——	——	——	——	12'-0"
A0601	16	7'-7"	——	——	——	——	7'-7"
N0501	X	10"	X'-X"	10"	——	——	X'-X"
N0502	X	10"	7'-9"	10"	——	——	9'-5"
N0601	8	1'-0"	X'-X"	1'-0"	——	——	X'-X"
N0602	8	1'-0"	7'-9"	1'-0"	——	——	9'-9"
RD0301	X	2'-0"	3¼"	10"	1'-3"	4½"	4'-5"
VA0301	X	6¾"	11½"	7¾"	8½"	——	3'-2"
U0501	X	7'-2"	4"	——	——	——	14'-8"

QUANTITIES

ITEM	UNIT	ONE BEAM
CONCRETE, f'c X,XXX	CY	XXXX.X
REINFORCING STEEL	LB	XXXX
0.6" Ø L.R. STRANDS	LF	XXXX
STRUCTURAL STEEL	LS	AS NECESSARY

DESIGN DATA

STRANDS:
0.6" Ø LOW RELAXATION GRADE 270
AREA=0.217 SQ. IN.
TENSIONING LOAD = 43.9 KIPS

CONCRETE:
f'c =X.X KSI
f'ci =X.X KSI

- • REINFORCEMENT STEEL
- ○ FULLY BONDED STRANDS
- ① △ FULLY BONDED STRANDS TO BE EXTENDED
- ◇ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM
- ⬠ DEBONDED STRANDS FOR X'-X" FROM END OF BEAM

REVIEWED			
QUAN.		AEL	04-24
DR.	DMD		
DES.			
	BY	CHK.	DATE

REV.					
REV.					
REV.					
	BY	CHK.	DATE	DESCRIPTION OF REVISION	

Dylan.Danks 6/18/2024 10:09:00 AM 704_FIB.dgn

CONSULTANT NAME/LOGO

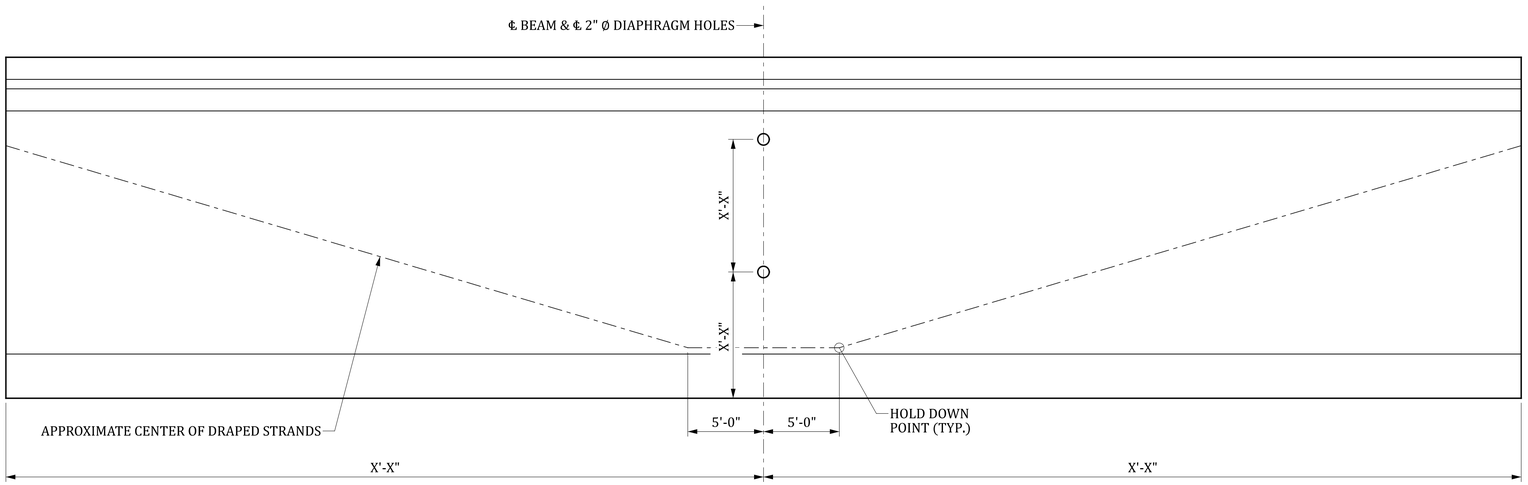
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

PRESTRESSED CONCRETE BEAM 96'' FLORIDA I-BEAM SPAN X

COUNTY: ####	ROUTE: ####

DRAWING NUMBER: 704-FIB.96.SPXXX

BRIDGE PLANS ID	SHEET
####-####	009



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

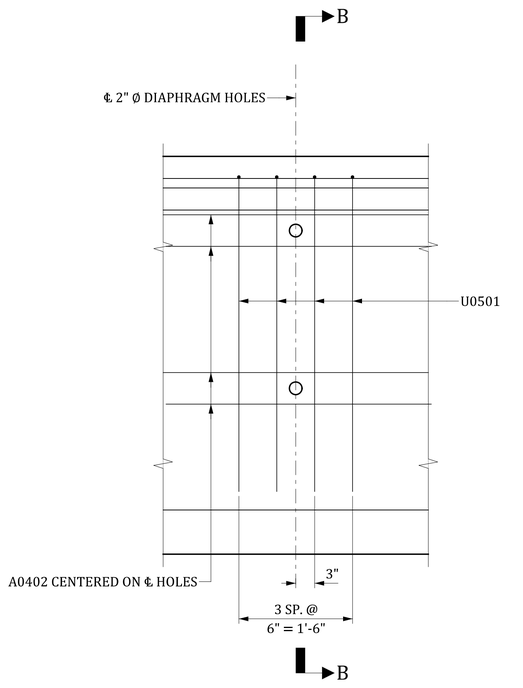
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

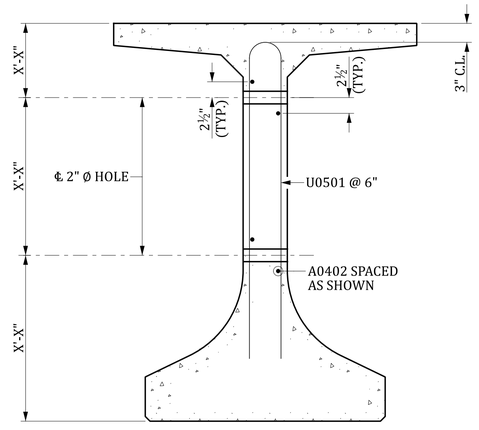
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT



INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.

REVIEWED			
QUAN.			
DR.	DMD	AEL.	04-24
DES.			
	BY	CHK.	DATE

Dylan.Danks 6/18/2024 10:09:01 AM 704_FIB.dgn

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

CONSULTANT NAME/LOGO

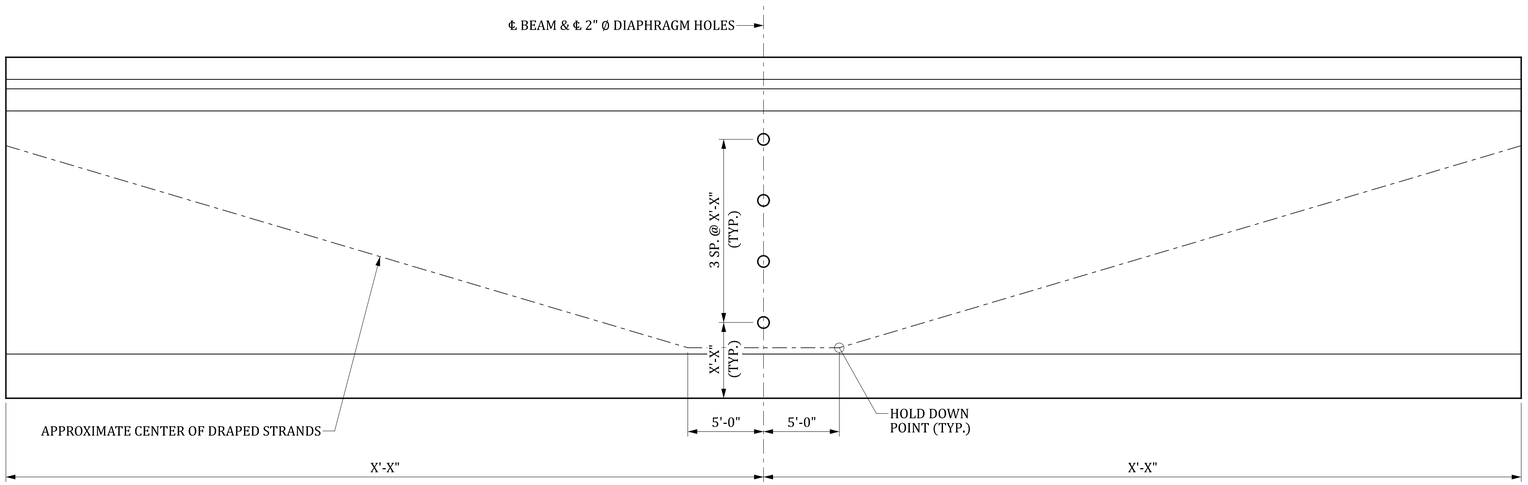
SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

FLORIDA I-BEAM DETAILS
SPAN X - ALT 1

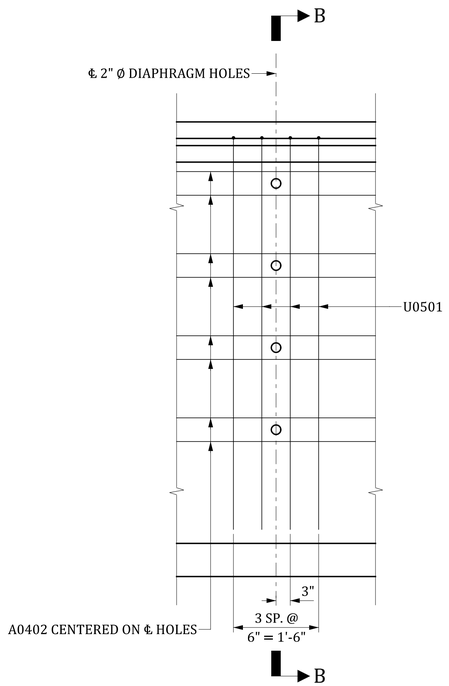
COUNTY: #### | ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.MIDPNTDIA.SK000.2HOLE

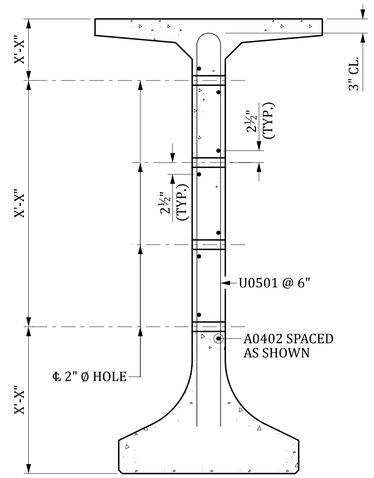
BRIDGE PLANS ID	SHEET
####-####	013



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL



INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.

BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

Dylan.Danks 6/18/2024 10:09:02 AM 704_FIB.dgn

CONSULTANT NAME/LOGO

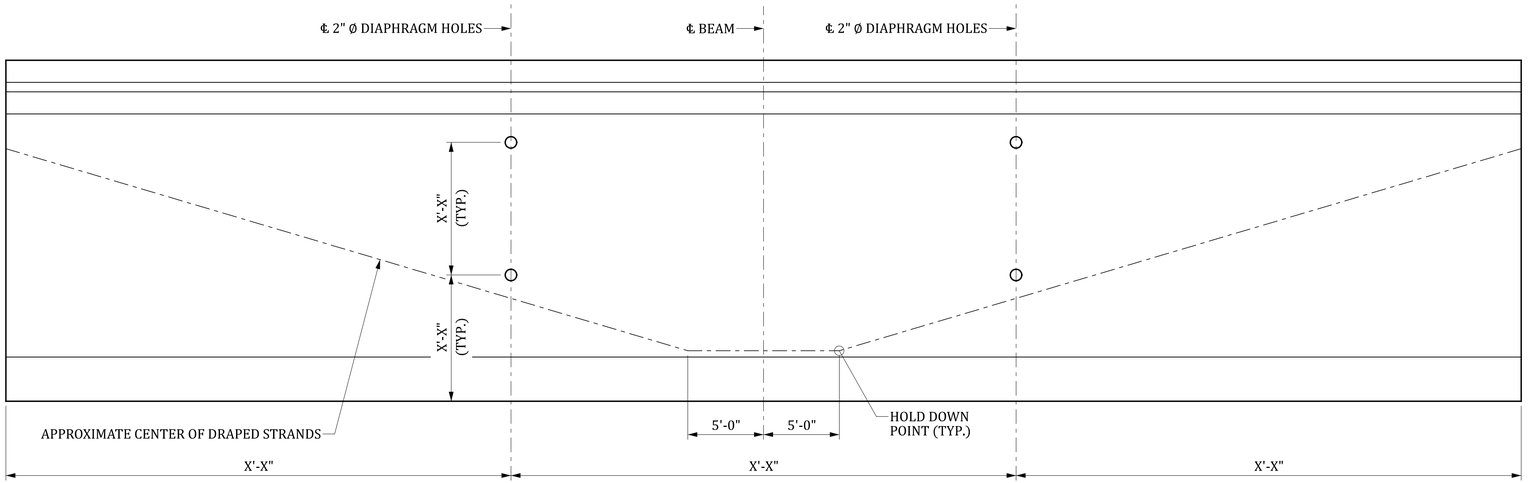
SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

FLORIDA I-BEAM DETAILS
SPAN X - ALT 2

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.MIDPNTDIA.SK000.4HOLE



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

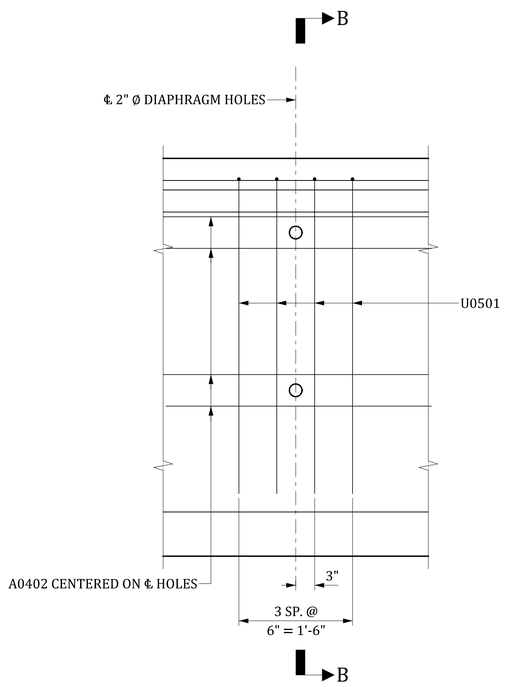
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

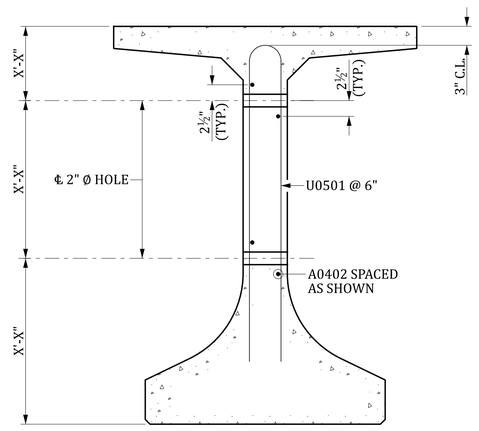
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT



INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.

REVIEWED			
QUAN.			
DR.	DMD	AEL.	04-24
DES.			
	BY	CHK.	DATE

	REV.	REV.	REV.	
BY				
CHK.				
DATE				
DESCRIPTION OF REVISION				

Dylan.Danks 6/18/2024 10:09:03 AM 704_FIB.dgn

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CONSULTANT NAME/LOGO

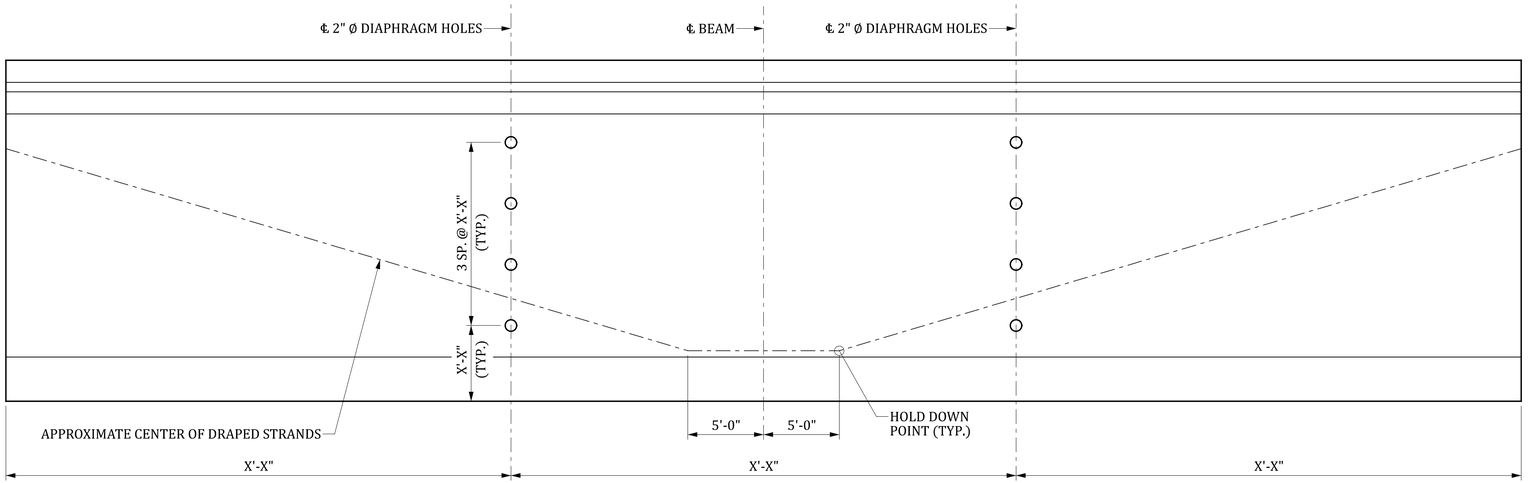
SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

FLORIDA I-BEAM DETAILS
SPAN X - ALT 3

COUNTY: #### | ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.THIRDPNTDIA.SK000.2HOLE

BRIDGE PLANS ID	SHEET
####-####	015



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

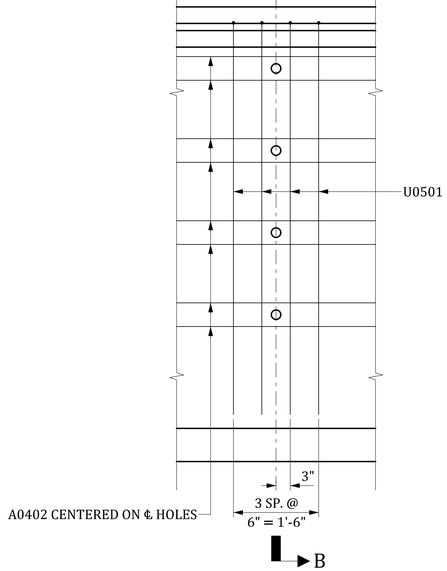
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

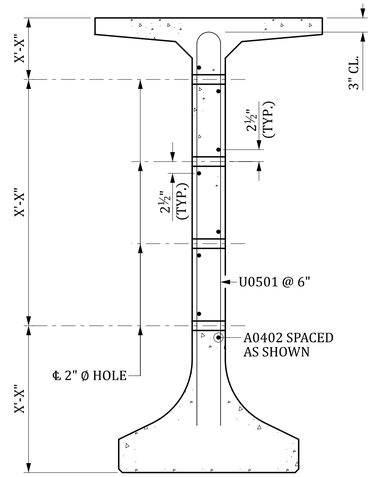
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT



INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

REV.	BY	CHK.	DATE	DESCRIPTION OF REVISION
REV.				
REV.				
REV.				

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CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

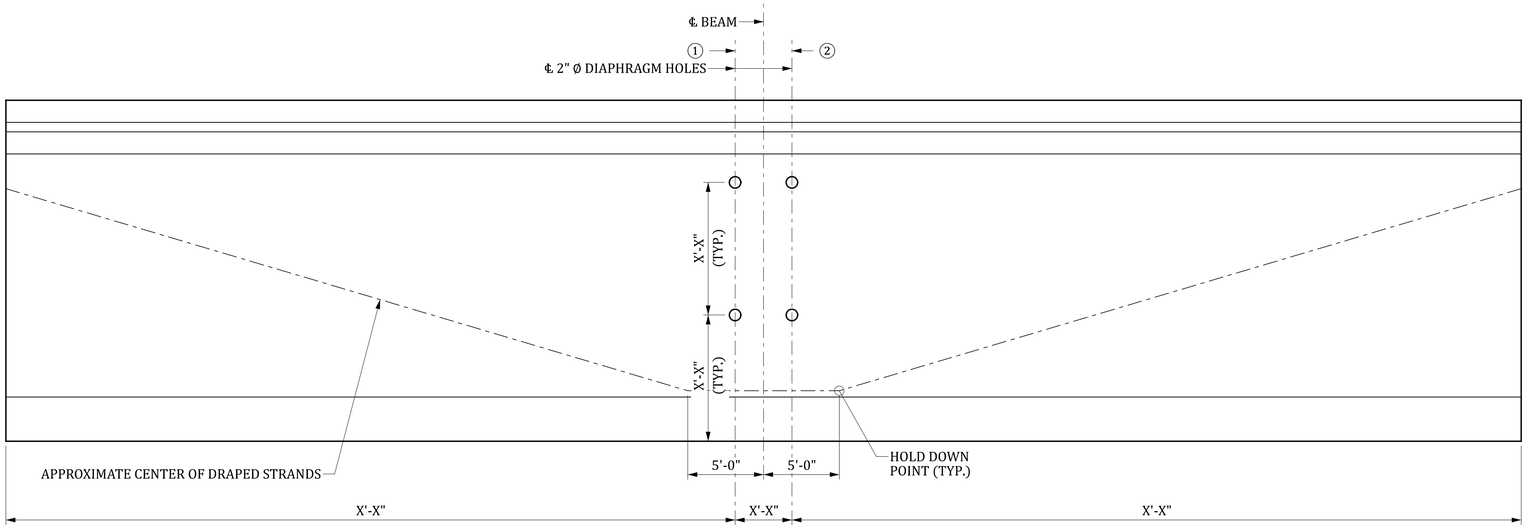
FLORIDA I-BEAM DETAILS
SPAN X - ALT 4

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.THIRDPNTDIA.SK000.4HOLE

BRIDGE PLANS ID	SHEET
####-####	016



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

INTERIOR BEAM SHOWN.

① OMIT THESE HOLES ON BEAM 1.
② OMIT THESE HOLES ON BEAM X.

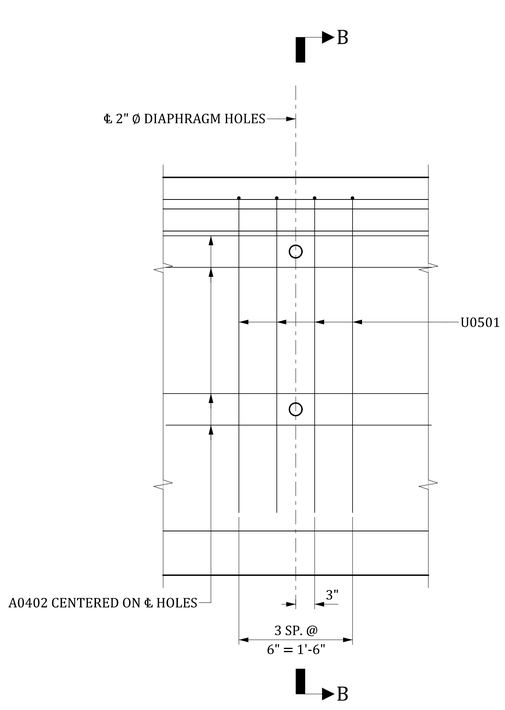
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

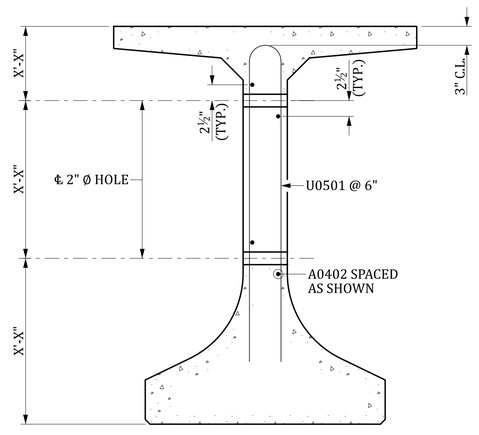
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT

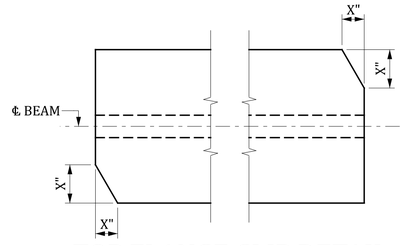


INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.



TOP FLANGE CLIP DETAIL

REVIEWED			
QUAN.			
DR.	DMD	AEL.	04-24
DES.			
	BY	CHK.	DATE

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

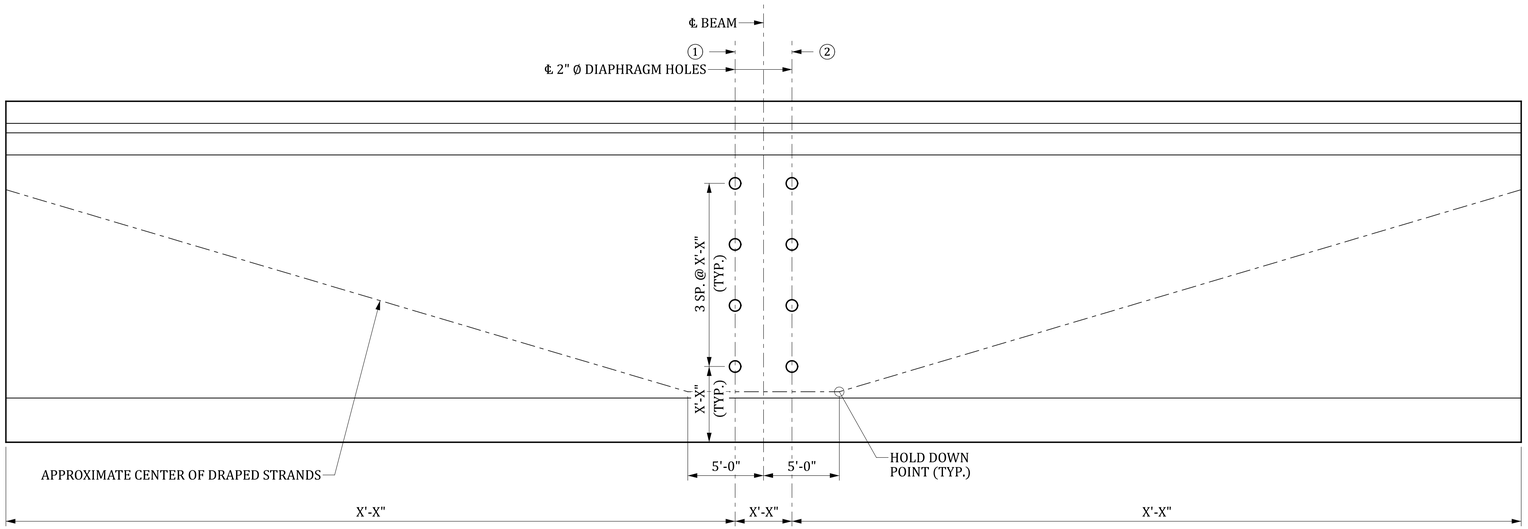
FLORIDA I-BEAM DETAILS
SPAN X - ALT 5

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.MIDPNTDIA.SKLT.2HOLE

BRIDGE PLANS ID	SHEET
####-####	017



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

INTERIOR BEAM SHOWN.

① OMIT THESE HOLES ON BEAM 1.
② OMIT THESE HOLES ON BEAM X.

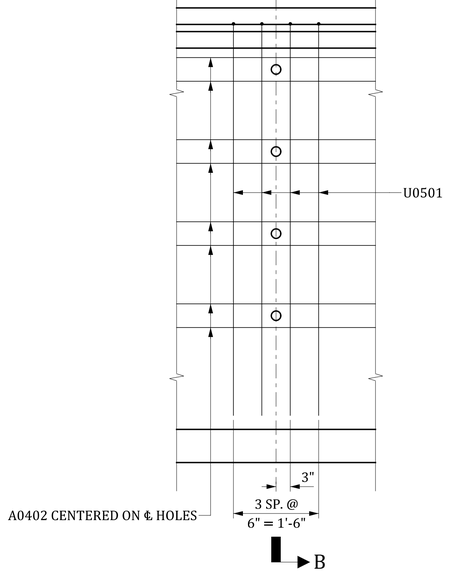
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

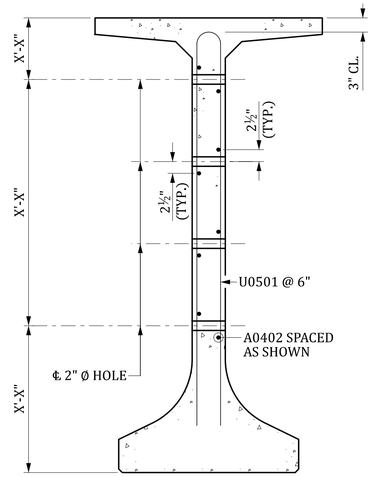
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT

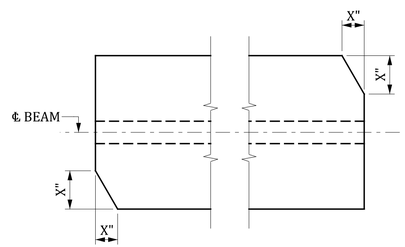


INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.



TOP FLANGE CLIP DETAIL

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

REV.					
REV.					
REV.					
	BY	CHK.	DATE	DESCRIPTION OF REVISION	

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CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

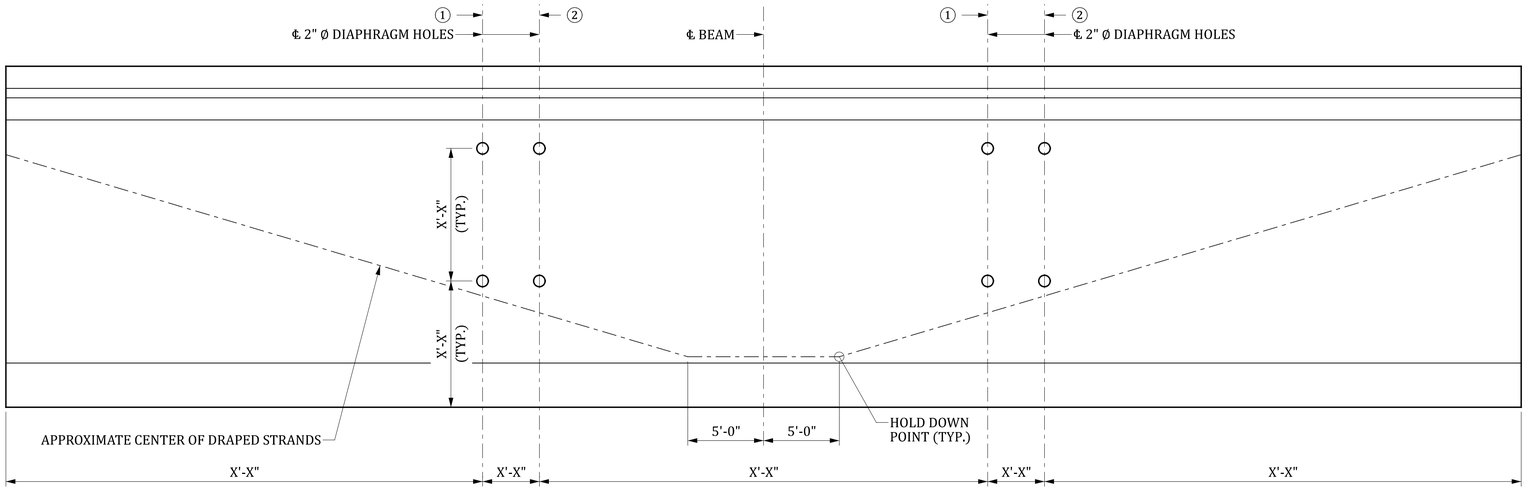
FLORIDA I-BEAM DETAILS
SPAN X - ALT 6

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.MIDPNTDIA.SKLT.4HOLE

BRIDGE PLANS ID	SHEET
####-####	018



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

INTERIOR BEAM SHOWN.

① OMIT THESE HOLES ON BEAM 1.
② OMIT THESE HOLES ON BEAM X.

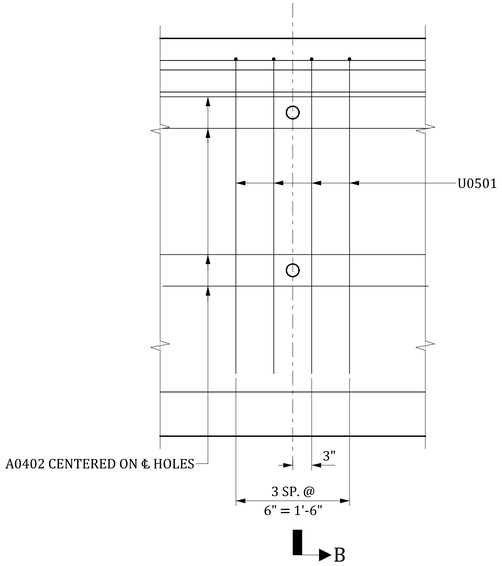
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

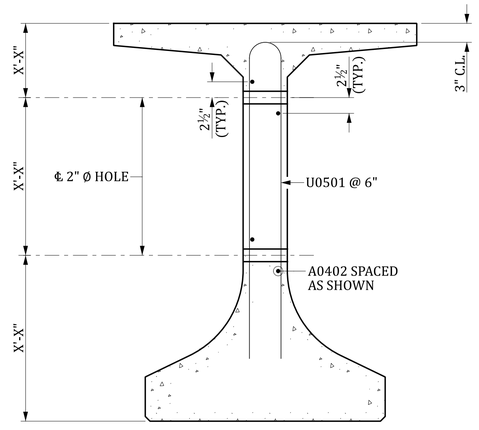
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT

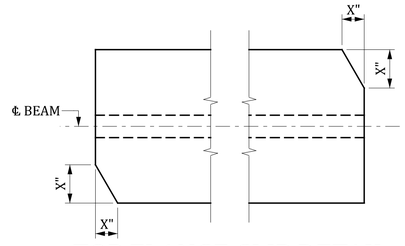


INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.



TOP FLANGE CLIP DETAIL

REVIEWED			
QUAN.			
DR.	DMD	AEL.	04-24
DES.			
	BY	CHK.	DATE

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

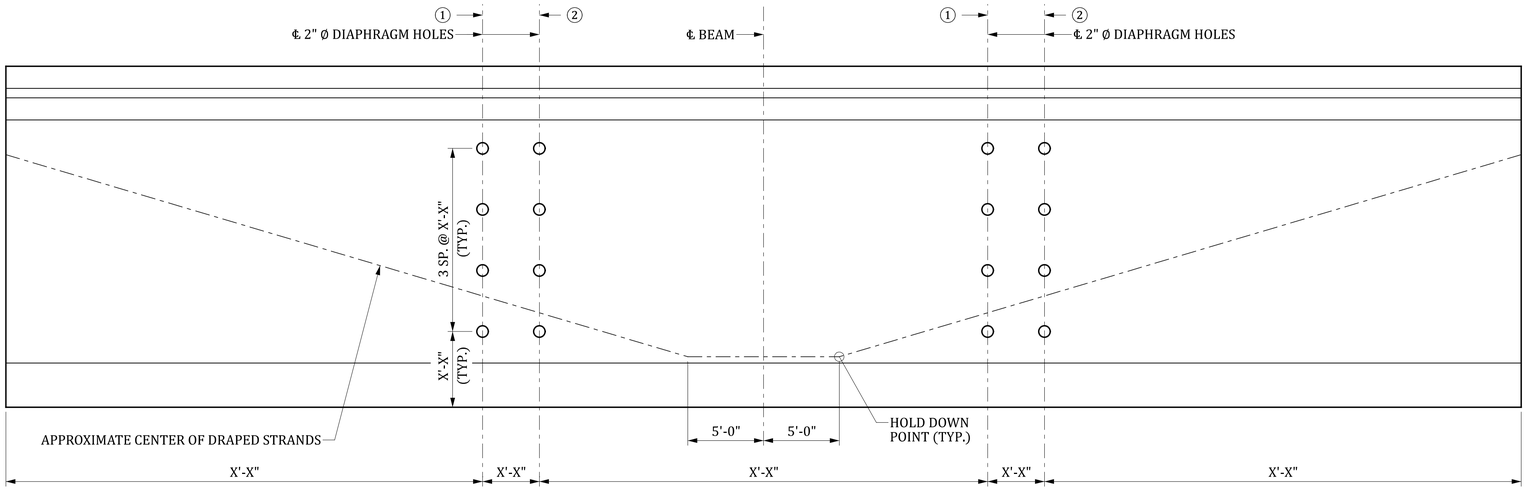
FLORIDA I-BEAM DETAILS
SPAN X - ALT 7

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.THIRDPNTDIA.SKLT.2HOLE

BRIDGE PLANS ID	SHEET
####-####	019



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

INTERIOR BEAM SHOWN.

① OMIT THESE HOLES ON BEAM 1.
② OMIT THESE HOLES ON BEAM X.

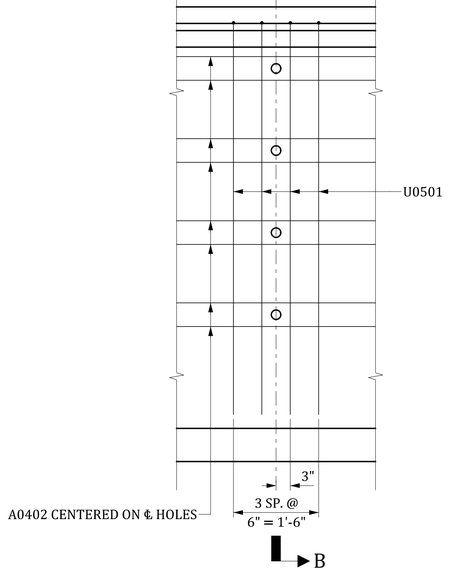
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

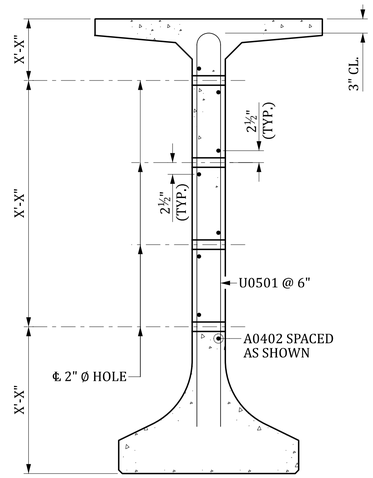
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT

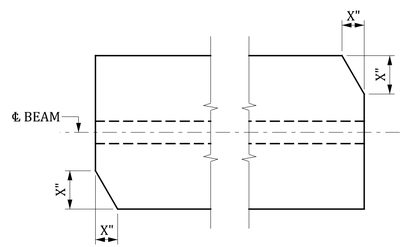


INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.



TOP FLANGE CLIP DETAIL

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

REV.					
REV.					
REV.					
	BY	CHK.	DATE	DESCRIPTION OF REVISION	

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CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

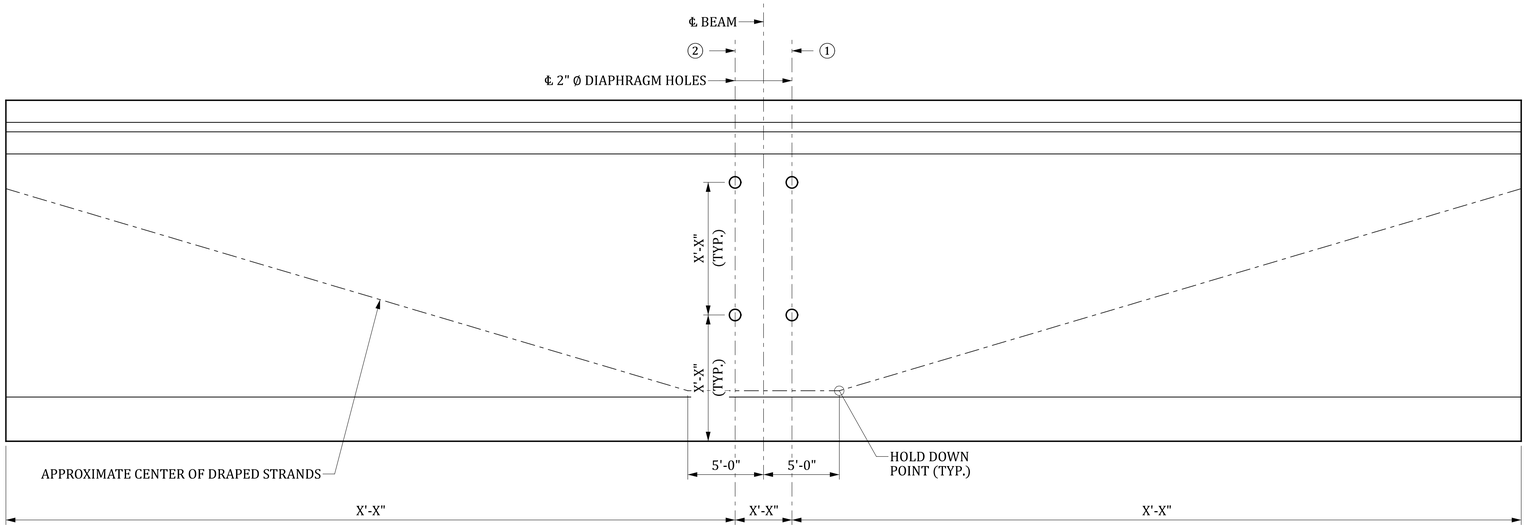
FLORIDA I-BEAM DETAILS
SPAN X - ALT 8

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.THIRDPNTDIA.SKLT.4HOLE

BRIDGE PLANS ID	SHEET
####-####	020



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

INTERIOR BEAM SHOWN.

① OMIT THESE HOLES ON BEAM 1.
② OMIT THESE HOLES ON BEAM X.

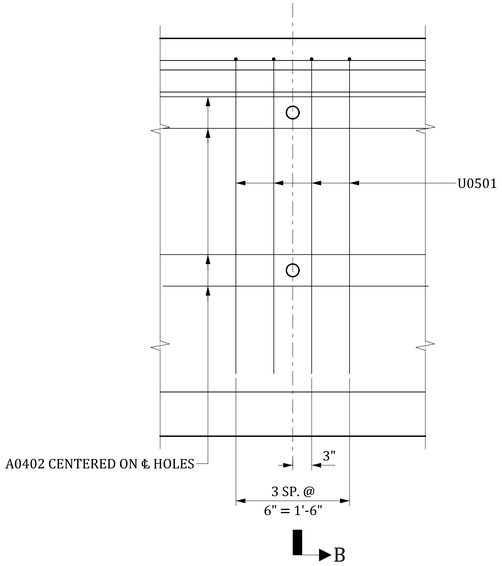
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

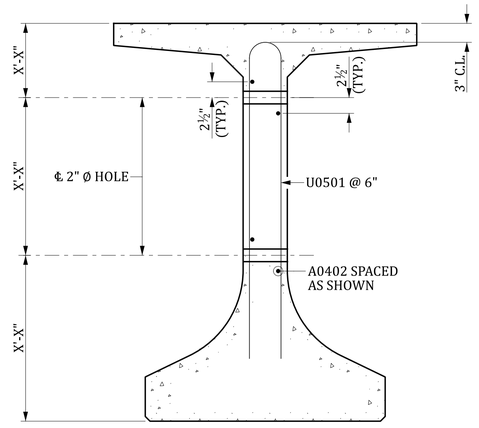
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT

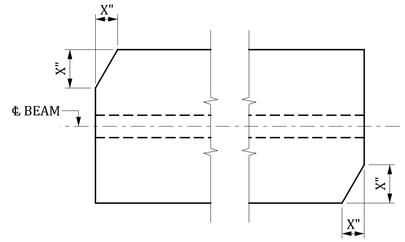


INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.



TOP FLANGE CLIP DETAIL

REVIEWED			
QUAN.			
DR.	DMD	AEL.	04-24
DES.			
	BY	CHK.	DATE

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

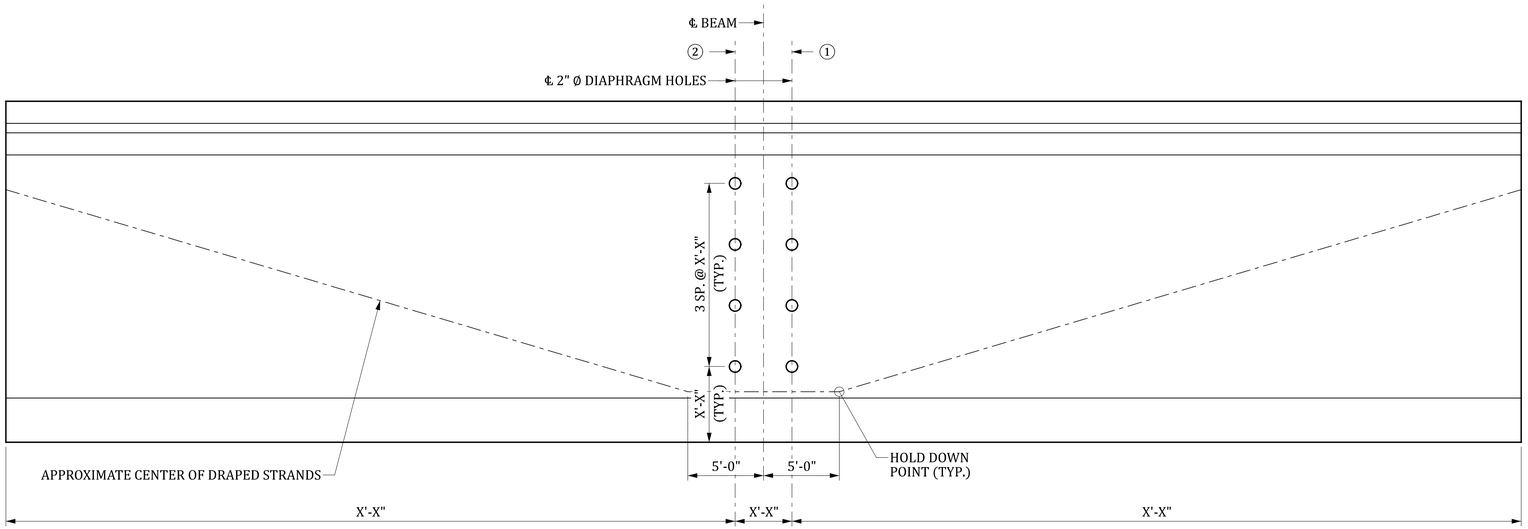
FLORIDA I-BEAM DETAILS
SPAN X - ALT 9

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.MIDPNTDIA.SKRT.2HOLE

BRIDGE PLANS ID	SHEET
####-####	010



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

INTERIOR BEAM SHOWN.

① OMIT THESE HOLES ON BEAM 1.
② OMIT THESE HOLES ON BEAM X.

BEAM CAMBERS & DEFLECTIONS

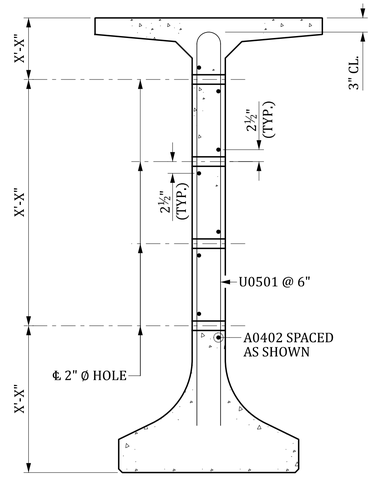
BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

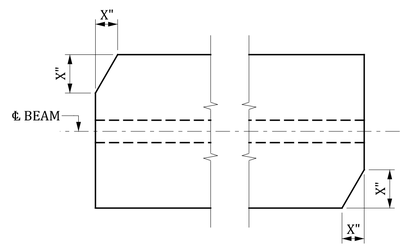
"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT

INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.



TOP FLANGE CLIP DETAIL

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

REV.					
REV.					
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CONSULTANT NAME/LOGO

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DEPARTMENT OF TRANSPORTATION

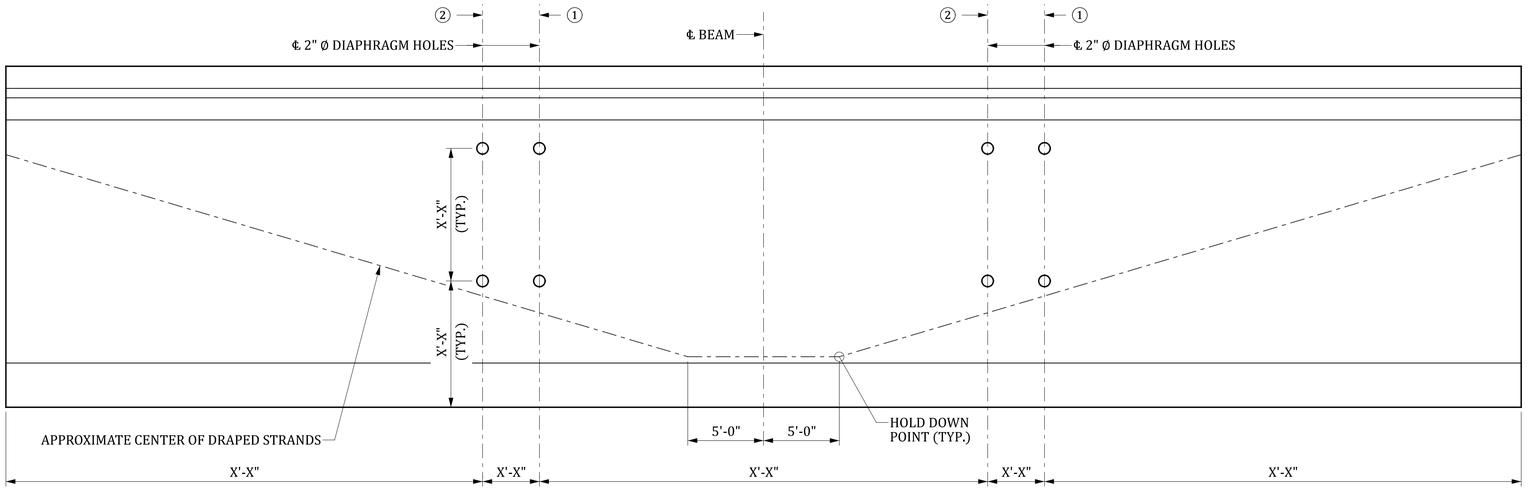
FLORIDA I-BEAM DETAILS
SPAN X - ALT 10

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.MIDPNTDIA.SKRT.4HOLE

BRIDGE PLANS ID	SHEET
####-####	011



INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

INTERIOR BEAM SHOWN.

① OMIT THESE HOLES ON BEAM 1.
② OMIT THESE HOLES ON BEAM X.

BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

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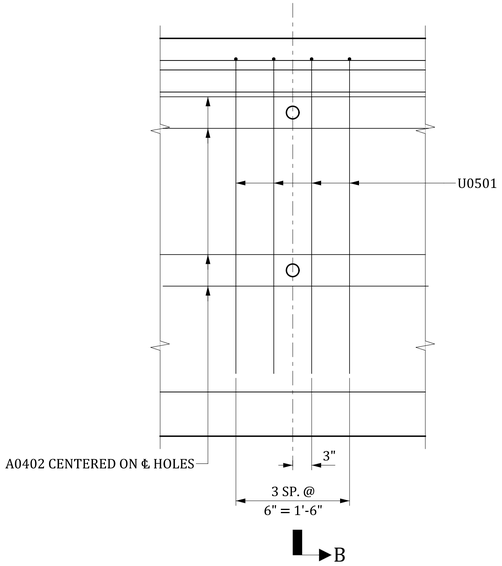
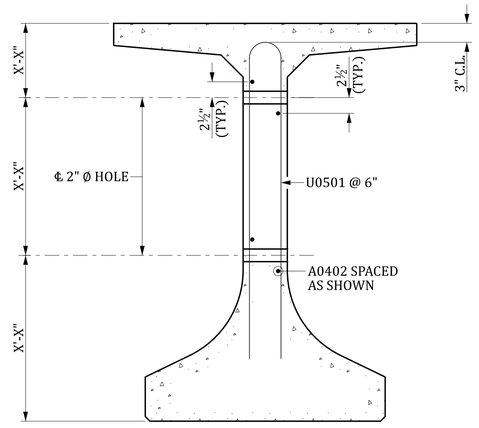
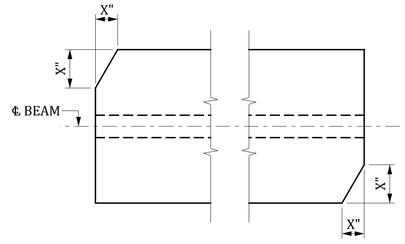


INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.



TOP FLANGE CLIP DETAIL

CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

FLORIDA I-BEAM DETAILS
SPAN X - ALT 11

COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.THIRDPNTDIA.SKRT.2HOLE

REVIEWED			
QUAN.			
DR.	DMD	AEL.	04-24
DES.			
	BY	CHK.	DATE

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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BRIDGE PLANS ID	SHEET
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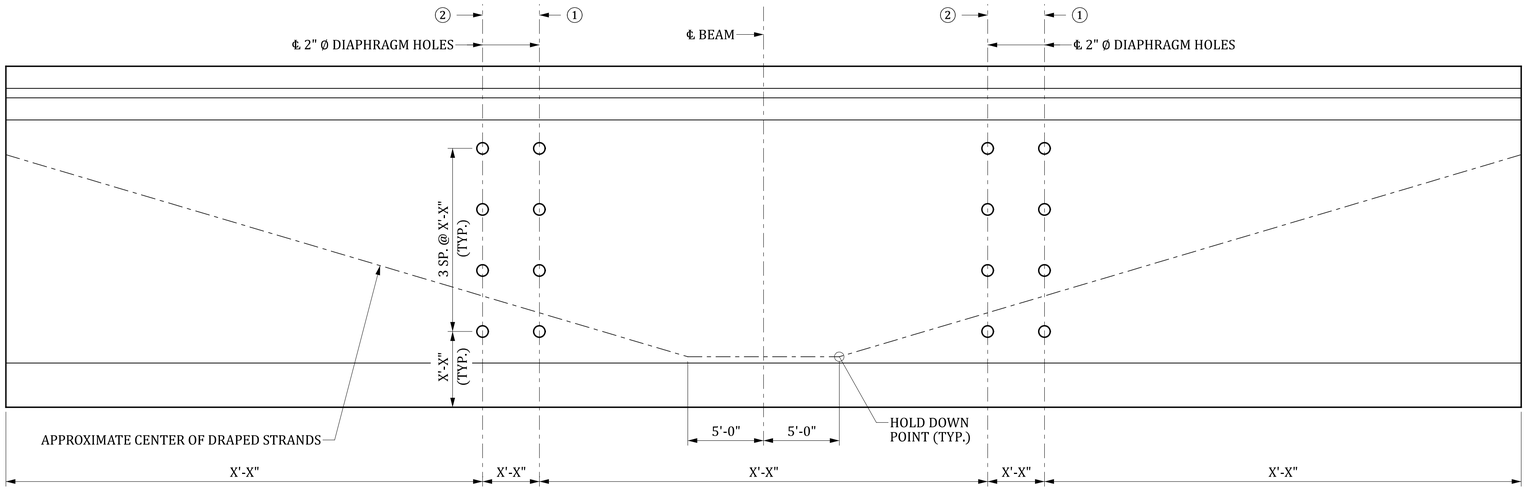


INTERMEDIATE DIAPHRAGM HOLE LOCATION DETAIL

INTERIOR BEAM SHOWN.

① OMIT THESE HOLES ON BEAM 1.
② OMIT THESE HOLES ON BEAM X.

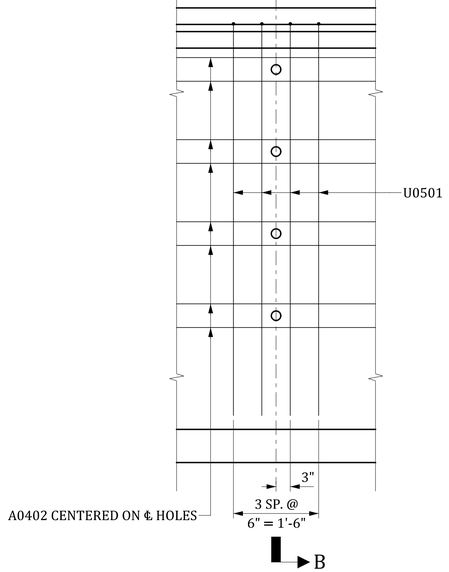
BEAM CAMBERS & DEFLECTIONS

BEAM CAMBER		DEFLECTION DUE TO			
AT RELEASE	* AT ERECTION	INTERIOR DIAPHRAGM	STAY-IN-PLACE FORMS **	SLAB	BARRIER PARAPET
X"	X"	X"	X"	X"	X"

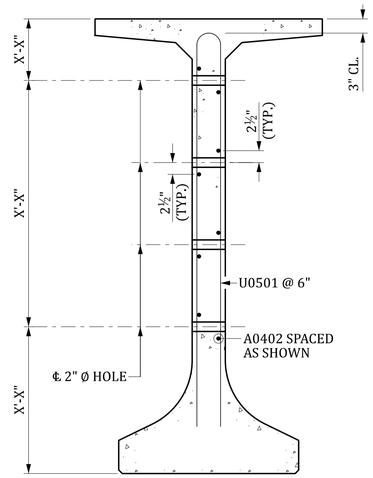
* BASED ON A BEAM AGE OF 60 DAYS AT THE TIME OF ERECTION

** DEFLECTION DUE TO WEIGHT OF METAL FORMS AND THE WEIGHT OF THE CONCRETE IN THE FLUTES OF THE FORMS.

"+" INDICATES UPWARD MOVEMENT
"-" INDICATES DOWNWARD MOVEMENT

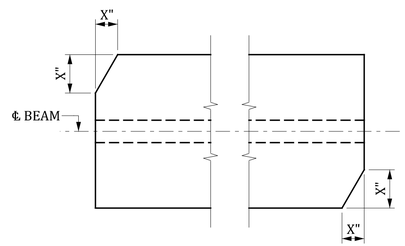


INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAIL



SECTION B-B

SHOWING HOLES AND ADDITIONAL REINFORCING REQUIRED AT INTERMEDIATE DIAPHRAGMS.



TOP FLANGE CLIP DETAIL

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

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THIS DRAWING IS FURNISHED FOR INFORMATION ONLY. ALL DIMENSIONS SHOWN ARE SHEET SPECIFIC. ANY USE OF THIS DESIGN AND DRAWING, INCLUDING DIMENSIONS, MUST BE CHECKED BY THE USER'S ENGINEER TO ENSURE DESIGN IS ADEQUATE FOR THE INTENDED USE. ALL DRAWINGS MUST BE SIGNED AND SEALED BY A SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER WHEN USED.

CONSULTANT NAME/LOGO

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION

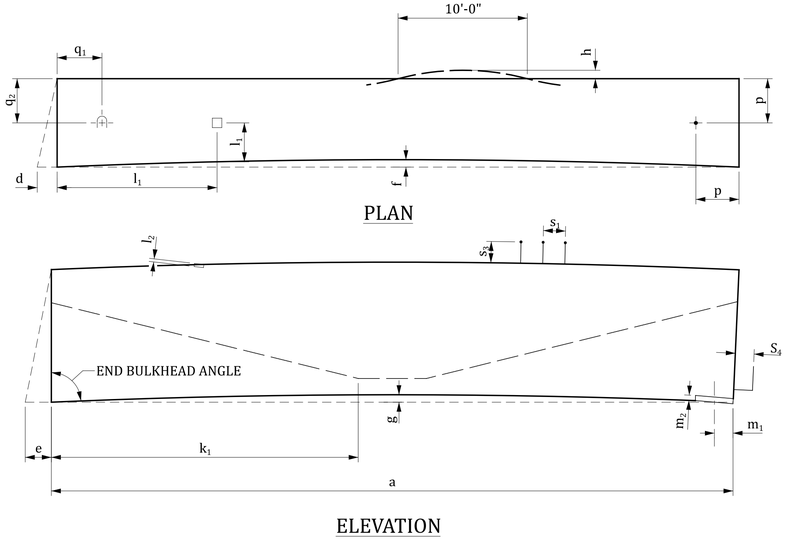
FLORIDA I-BEAM DETAILS
SPAN X - ALT 12

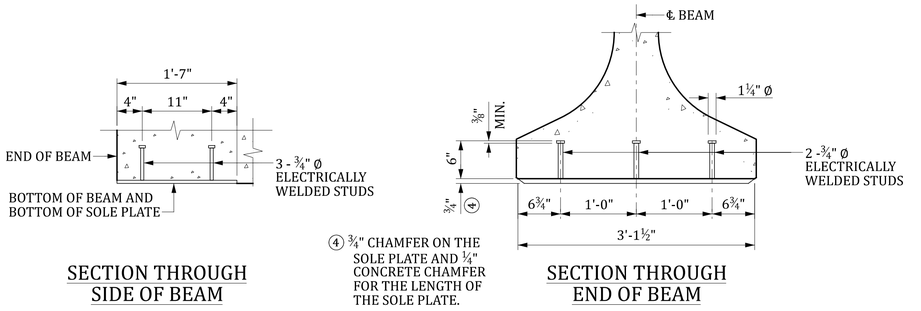
COUNTY: ####

ROUTE: ####

DRAWING NUMBER: 704-FIB.D01.THIRDPNTDIA.SKRT.4HOLE

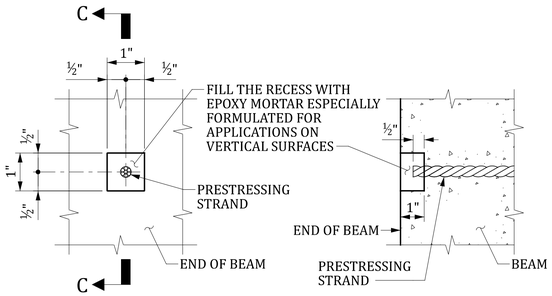
a	LENGTH	±¼" PER 25' LENGTH, ±1" MAX.
b	WIDTH (OVERALL)	+⅜", -¼"
b_1	WEB WIDTH	+⅜", -¼"
c	DEPTH (OVERALL)	+½", -¼"
c_1	FLANGE DEPTH	±¼"
d	VARIATION FROM SPECIFIED PLAN END SQUARENESS OR SKEW	±⅛" PER 12" WIDTH, ±½" MAX.
e	VARIATION FROM SPECIFIED ELEVATION END SQUARENESS OR SKEW	±3/16" PER 12" DEPTH, ±1" MAX.
f	SWEEP	⅛" PER 10' LENGTH
g	CAMBER VARIATION FROM DESIGN CAMBER (MEASUREMENT OF CAMBER FOR COMPARISON TO PREDICTED DESIGN VALUES SHOULD BE COMPLETED WITHIN 72 HRS. OF TRANSFER OF PRESTR. FORCE)	±⅛" PER 10' ±½" MAX. UP TO 80' LENGTH ±1" MAX. FOR LENGTH GREATER THAN 80'
h	LOCAL SMOOTHNESS OF ANY SURFACE	¼" IN 10'
k	LOCATION OF STRAND (INDIVIDUAL)	±¼"
	LOCATION OF STRAND (BUNDLED)	±½"
k_1	LOCATION OF HARP POINTS FOR HARPED STRANDS FROM DESIGN LOCATION	±20"
k_2	LOCATION OF POST-TENSIONING DUCT	±¼"
l_1	LOCATION OF EMBEDMENT	±1"
l_2	TIPPING AND FLUSHNESS OF EMBEDMENT	±¼"
m_1	LOCATION OF BEARING ASSEMBLY	±⅝"
m_2	TIPPING AND FLUSHNESS OF BEARING ASSEMBLY	±⅛"
p	LOCATION OF INSERTS, SLEEVES, OR HOLES FOR STRUCTURAL CONNECTIONS	±½"
q_1	LOCATION OF HANDLING DEVICE PARALLEL TO LENGTH OF MEMBER	±6"
q_2	LOCATION OF HANDLING DEVICE TRANSVERSE TO LENGTH OF MEMBER	±1"
s_1	LONGITUDINAL SPACING OF STIRRUPS	±2"
s_2	LONGITUDINAL SPACING OF STIRRUPS WITHIN DISTANCE "C" FROM MEMBER ENDS	±1"
s_3	STIRRUP PROJECTION FROM BEAM SURFACE	+¼", -½"
s_4	PRESTRESSING STRAND PROJECTION FROM BEAM END	±½"





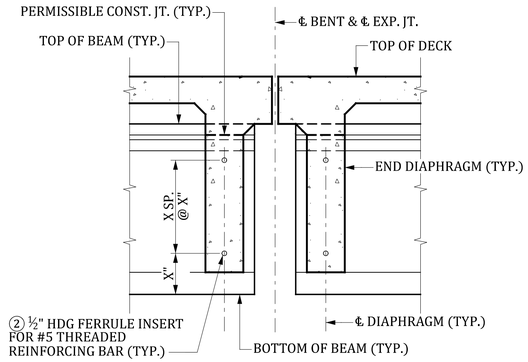
SOLE PLATE DETAIL

REINFORCING STEEL AND STRANDS NOT SHOWN.



① GROUTED RECESS AT END OF PRETENSIONED STRAND

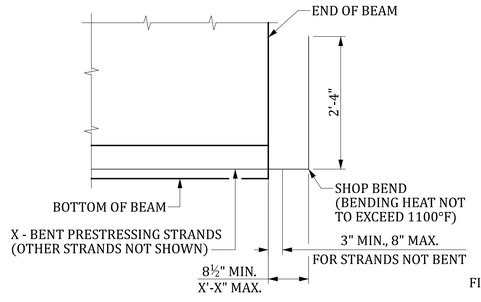
① PROVIDE A 1" RECESS IN THE END OF THE BEAM, ONLY AT BEAM ENDS THAT ARE NOT PERMANENTLY ENCASED IN CONCRETE. CUT ALL STRANDS ½" BACK INTO RECESS AND FILL THE RECESS WITH AN EPOXY MORTAR ESPECIALLY FORMULATED FOR APPLICATIONS ON VERTICAL SURFACES.



SECTION AT END DIAPHRAGM

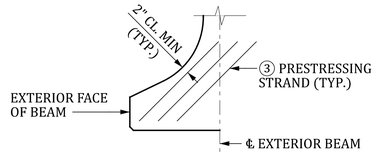
REINFORCEMENT AND EXPANSION JOINT DETAILS NOT SHOWN FOR CLARITY.

② USE APPROVED HOT-DIPPED GALVANIZED FERRULE INSERTS (½"- 13 UNC) AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. OMIT INSERTS ON OUTSIDE FACE OF EXTERIOR BEAM. ADJUST INSERT LOCATIONS AS NECESSARY TO AVOID REINFORCEMENT IN BEAM. INSTALL INSERTS PERPENDICULAR TO THE FACE OF THE WEB.



PRESTRESSING STRAND BENDING DETAIL

MILD REINFORCING NOT SHOWN.



HALF ELEVATION END OF BEAM AT INTERIOR BENT

FIELD BEND STRANDS AS NECESSARY FOR OUTSIDE OF EXTERIOR BEAM ONLY.

③ NUMBER OF STRANDS SHOWN FOR ILLUSTRATION ONLY.

NOTES:

SEE SECTION 704 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION REGARDING PRESTRESSED CONCRETE BEAMS. SHOP DRAWINGS MUST BE SUBMITTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

INCLUDE STRAND BENDING PROCEDURE IN SHOP PLANS.

GALVANIZE ALL OVERHANG BRACKETS IN THE TOP FLANGE OF EXTERIOR BEAMS IN ACCORDANCE WITH AASHTO M 111, AASHTO M 232, OR ASTM F 2329 AS APPROPRIATE AND DETAIL ACCORDINGLY IN THE SHOP PLANS.

USE PRESTRESSING STRANDS THAT CONFORM TO THE LATEST AASHTO M 203 FOR GRADE 270 (LOW RELAXATION).

THE TENSIONING LOAD IN ALL 0.6" Ø LOW RELAXATION STRANDS IS 43.9 KIPS. DO NOT RELEASE THE STRANDS UNTIL THE COMPRESSIVE STRENGTH OF THE CONCRETE HAS REACHED THE VALUE SHOWN FOR f'ci.

ON THE TOP SURFACE OF BEAMS WHERE CAST-IN-PLACE CONCRETE WILL BE PLACED, PROVIDE A FINISH THAT IS CLEAN, FREE OF LAITANCE, AND INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY ¼". FINISH TOP OF BEAM LEVEL ACROSS WIDTH OF FLANGE.

ALWAYS MAINTAIN PRESTRESSED CONCRETE BEAMS IN AN UPRIGHT POSITION. WHEN PLACING OR STORING BEAMS, ENSURE BEAM SUPPORTS ARE LOCATED ONLY UNDER THE SOLE PLATES.

LOCATE HOLES FOR DIAPHRAGMS OR CROSS FRAMES AS SHOWN ON "FLORIDA I-BEAM DETAILS" SHEET. FORM HOLES WITH 2" INSIDE Ø PIPE AND PREVENT MOVEMENT DURING CASTING BY SECURELY FASTENING THE PIPE.

CONTRACTOR IS RESPONSIBLE FOR INVESTIGATING THE CAPACITY OF BEAM FLANGES TO ENSURE FLANGES ARE ADEQUATE TO SUPPORT ALL CONSTRUCTION LOADS. A MINIMUM OF #4 REINFORCING BARS PLACED TRANSVERSELY AT 24" SPACING IS REQUIRED IN ALL FLORIDA I-BEAM TOP FLANGES.

DEBONDING:

1) FOR ALL DEBONDING MATERIAL, USE TUBULAR CONDUIT CAPABLE OF RESISTING THE PRESSURE EXERTED BY THE CONCRETE. WHEN USING SLIT CONDUIT, USE TWO CONDUITS WITH THE SLITS LOCATED ON OPPOSITE SIDES OF THE STRAND. USE CONDUIT MADE OF HIGH DENSITY POLYETHYLENE OR POLYPROPYLENE WITH A MINIMUM THICKNESS OF 0.025". USE CONDUIT WITH AN INSIDE DIAMETER THAT WILL PERMIT FREE MOVEMENT OF THE ENCASED STRAND, BUT NO LARGER THAN THE DIAMETER OF THE STRAND PLUS ⅛". PLACE CONDUIT ON THE STRAND AT THE LOCATION(S) SHOWN ON THE PLANS (±1") TO PREVENT BONDING OF THE CONCRETE. SECURE CONDUIT TO PREVENT ANY LONGITUDINAL MOVEMENT ALONG THE STRAND. PREVENT CONCRETE FROM ENTERING THE CONDUIT BY SEALING WITH TAPE. USE TAPE MANUFACTURED FROM A NON-CORROSIVE MATERIAL THAT IS COMPATIBLE WITH THE CONCRETE, CONDUIT, AND STEEL.

2) RELEASE STRANDS IN ACCORDANCE WITH SECTION 704 OF THE STANDARD SPECIFICATIONS.

3) WITHIN 48 HOURS OF DETENSIONING, SEAL THE OPENINGS BETWEEN THE STRANDS AND THE SHEATHING . USE AN APPROVED SEALANT THAT IS MADE OF EITHER EPOXY OR SILICONE. IF SILICONE SEALANT IS PROVIDED, USE A LOW MODULUS SILICONE SEALANT THAT IS WHITE IN COLOR.

BRIDGE PLANS ID	SHEET
####-####	021

REVIEWED			
QUAN.			
DR.	DMD	AEL	04-24
DES.			
	BY	CHK.	DATE

REV.				
REV.				
REV.				
	BY	CHK.	DATE	DESCRIPTION OF REVISION

Dylan.Danks 6/18/2024 10:09:05 AM 704_FIB.dgn

CONSULTANT NAME/LOGO

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

FLORIDA I-BEAM GENERAL DETAILS

COUNTY: ####	ROUTE: ####

DRAWING NUMBER: 704-FIB.GD01