

STANDARD DETAILS FOR 3" CONCRETE COVER

T-WALL® RETAINING WALL SYSTEM

DESIGNER



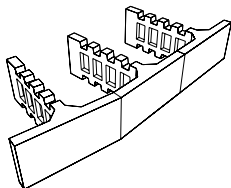
THE NEEL COMPANY

8328-D TRAFORD LANE
SPRINGFIELD, VIRGINIA 22152
PH: (703) 913-7856
FX: (703) 913-7859

PRECASTER

OLDCASTLE PRECAST, INC.

11643 103rd STREET
JACKSONVILLE, FL 32210
PH: (904) 778-2990
FX: (904) 778-2992



MISCELLANEOUS NOTES:

- DESIGNER:
THE NEEL COMPANY
8328-D TRAFORD LANE
SPRINGFIELD, VA 22152
PH: (703) 913-7856
FX: (703) 913-7859
- PRECASTER:
OLDCASTLE PRECAST, INC.
11643 103rd STREET
JACKSONVILLE, FL 32210
PH: (904) 778-2990
FX: (904) 778-2992
- MATERIALS SUPPLIED BY PRECASTER:
-PRECAST T-WALL UNITS
-PRECAST
-HORIZONTAL JOINT MATERIAL
-VERTICAL JOINT MATERIAL AND ADHESIVE
-SHEAR KEY JOINT MATERIAL

DESIGN NOTES:

- DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINING WALL VOLUME, INCLUDING BACKFILL, IS OF THE SAME QUALITY OF PREFABRICATED MATERIALS SHALL CONFORM TO SPEC SECTION 548 - RETAINING WALL SYSTEMS.
- SOIL PARAMETERS:
-SEE WALL CONTROL DRAWINGS FOR SOIL CHARACTERISTICS OF FOUNDATION MATERIAL TO BE USED IN THE DESIGN OF THE WALL SYSTEM. THE CONTRACTOR SHALL PROVIDE SOIL DESIGN PARAMETERS FOR BACKFILL MATERIAL BASED ON THE ACTUAL SOIL CHARACTERISTICS UTILIZED AT THE SITE. THE VALUE OF ϕ , C AND GAMMA SHALL BE PROVIDED IN THE SHOP DRAWINGS.
- FACTORS OF SAFETY:
-OVERTURNING - 2.0
-SLIDING - 1.5
-INTERNAL PULLOUT - 1.5
-BEARING CAPACITY - 2.5
-OVERALL STABILITY - 1.5
- THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE NEEL COMPANY IS RESPONSIBLE FOR INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY DESIGN, INCLUDING FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF OTHERS.
- PANELS WITH CANTILEVERED (EXTENDED) FACE SHALL ONLY BE USED TO AVOID OBSTRUCTIONS AS APPROVED ON THE SHOP DRAWINGS.

MATERIALS NOTES:

- PRECAST CONCRETE:
-PRECAST T-WALL UNITS - PER SPEC SECTION 548
-PRECAST SHEAR KEYS - PER SPEC SECTION 548
- C.J.P. CONCRETE:
-C.J.P. LEVELING PAD - PER SPEC SECTION 548
-OTHER C.J.P. CONCRETE - PER SPEC SECTION 548
- REINFORCING STEEL:
-PER SPEC SECTION 548
- JOINT MATERIAL:
-HORIZONTAL JOINT FILLER:
1/2" x 5/8"
-PREFORMED EPDM
-DIMENSION: 80" x 90"
-VERTICAL JOINT COVER:
-TENSILE STRENGTH OF EQUAL
-UPWARD x HEIGHT OF JOINT
-SECONDARY MEETING REQUIREMENTS OF SPEC SECTION 548
-SHEAR KEY WRAP:
-1/2" x 8"
-AV ASTRO-FOAM AF-250
- BACKFILL:
-PER SPEC SECTION 548

CONSTRUCTION NOTES:

- ALL CONSTRUCTION PROCEDURES SHALL COMPLY WITH SPEC SECTION 548 AND THE T-WALL CONSTRUCTION MANUAL PROVIDED BY THE NEEL COMPANY OR OLDCASTLE PRECAST, INC., IN THE EVENT OF A DISCREPANCY BETWEEN THE SPEC AND THE T-WALL CONSTRUCTION MANUAL, THE SPEC SHALL CONTROL.
- FOR LOCATION AND ALIGNMENT OF T-WALL STRUCTURE, SEE RETAINING WALL CONTROL PLANS.
- T-WALL STRUCTURES ON CURVES SHALL BE BUILT IN CHORDS AS SHOWN IN THE T-WALL DESIGN DRAWINGS.
- IF MANHOLES OR DROP INLETS ARE PRESENT, THEY SHALL BE LOCATED AS SHOWN IN THE T-WALL DESIGN DRAWINGS.
- IF PILES ARE LOCATED WITHIN THE RETAINING WALL VOLUME, THEY SHALL BE DRIVEN BEFORE CONSTRUCTION OF THE T-WALL STRUCTURE.
- T-WALL UNITS SHALL BE PLACED ONE ROW AT A TIME, AND BACKFILLED BEFORE PLACEMENT OF THE NEXT ROW.
- IF A STRUCTURE EXCEEDS 20' IN HEIGHT, THE FINISH GRADE AT THE FACE OF THE WALL SHALL BE PLACED AND COMPACTED BEFORE WALL CONSTRUCTION EXCEEDS 20' IN HEIGHT.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING STORM WATER DRAINAGE IN THE VICINITY OF THE WALL DURING CONSTRUCTION. STORMWATER RUNOFF SHALL BE COLLECTED AND DISCHARGED AWAY FROM THE WALL AND THE RETAINING WALL VOLUME.

THIS SYSTEM SHALL NOT BE USED FOR WALLS WITH ACUTE INTERIOR CORNERS IN SALT WATER ENVIRONMENTS.

THIS SYSTEM MAY BE USED IN ALL ENVIRONMENTS.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

RETAINING WALL SYSTEM
THE NEEL COMPANY T-WALL
(3" COVER)

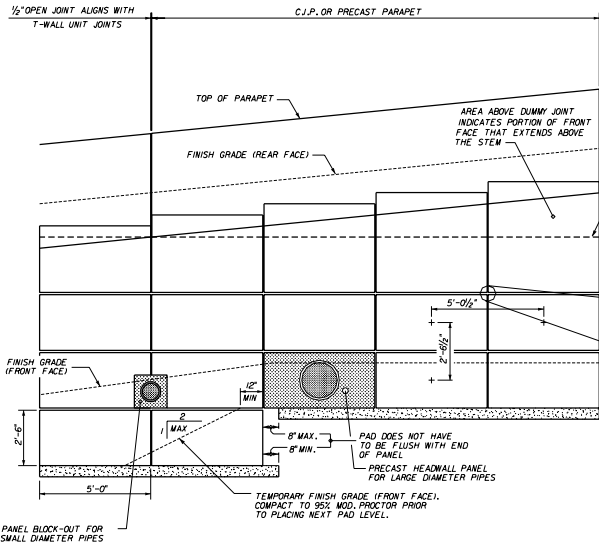
Designed By	Checked By	Approved By	Date	Date	Date
JMC	JMC	[Signature]	01/09/00	01/09/00	01/09/00
CAJ	JMC		01/09/00	01/09/00	01/09/00
JMC	JMC		01/09/00	01/09/00	01/09/00

1 of 20 5010

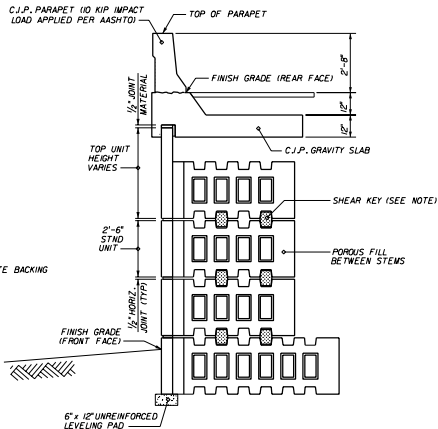


THE NEEL COMPANY
8328-D TRAFORD LANE
SPRINGFIELD, VIRGINIA 22152
PH: (703) 913-7856
FX: (703) 913-7859

OLDCASTLE PRECAST, INC.
11643 103rd STREET
JACKSONVILLE, FL 32210
PH: (904) 778-2990
FX: (904) 778-2992



PART ELEVATION SHOWING TYPICAL DETAILS
(NO SCALE)



SECTION SHOWING TYPICAL DETAILS
(NOT ALL DETAILS APPLY TO EACH WALL)

NOTE: ALL EXTENDED FACE TOP UNITS REQUIRE
A MINIMUM OF TWO SHEAR KEYS. ALL OTHER UNITS
ARE AS SHOWN BELOW:

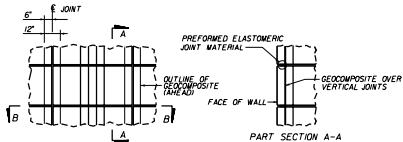
- TOP UNITS - 2 SHEAR KEYS
- 6' STEM - 2 SHEAR KEYS
- 8' STEM - 2 SHEAR KEYS
- 10' STEM - 2 SHEAR KEYS
- 12' STEM - 2 SHEAR KEYS
- 14' STEM - 3 SHEAR KEYS
- 16' STEM - 3 SHEAR KEYS



THE NEEL COMPANY
1000 NEEL DRIVE
MARIETTA, GA 30067
770-429-1100
FAX 770-429-1101

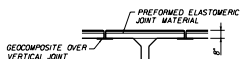
OKCASTLE PRECAST, INC.
1000 OKCASTLE DRIVE
MARIETTA, GA 30067
770-429-1100
FAX 770-429-1101

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN			
RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (3" COVER)			
Drawn By	Checked By	Approved By	Scale
CAJ	01/09	<i>W. J. [Signature]</i>	
CAJ	01/09	00	2 of 20
CAJ	01/09	00	5010



PART ELEVATION - REAR FACE

PART SECTION A-A

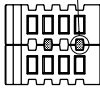


PART SECTION B-B

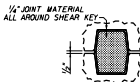
- NOTES:
1. HORIZONTAL JOINT:
1/2" x 4" x 5'-0" PREFORMED ELASTOMERIC JOINT MATERIAL
 2. VERTICAL JOINT:
1/2" SPACE
12" WIDE GEOCOMPOSITE BACKING, CENTERED ABOUT JOINT CENTERLINE.

JOINT MATERIAL DETAILS

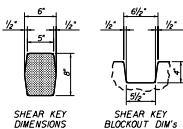
SHEAR KEY WRAPPED IN JOINT MATERIAL. SEE DETAILS THIS SHEET.



PART SECTION



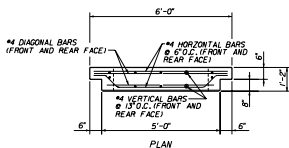
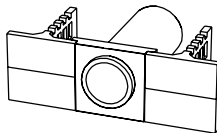
SHEAR KEY / JOINT MATERIAL ARRANGEMENT



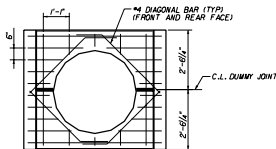
SHEAR KEY DETAILS

NOTES:

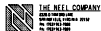
1. SHEAR KEY JOINT MATERIAL MINIMUM OF ONE 1/4" x 1/4" x 24" PIECE OF ANI ASTRO-FOAM A2-250 PER SHEAR KEY.
2. JOINT MATERIAL MAY BE ADDED OR REMOVED TO AID IN SHIMMING AND ALIGNING. POSITION SHEAR KEY FIRST AND THEN POSITION JOINT KEY BLOCKOUT WHEN UNIT IS IN ITS FINAL POSITION.
3. MINIMUM OF 2 SHEAR KEYS REQUIRED PER UNIT. SEE NOTES ON SHEET 2 OF 20, TYPICAL DETAILS III.



PLAN



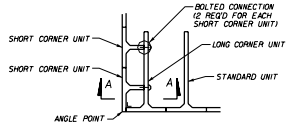
ELEVATION (FRONT FACE)
PRECAST HEADWALL PANEL
FOR LARGE DIAMETER PIPES



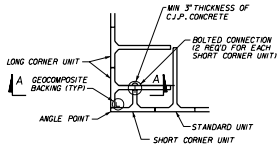
THE NEEL COMPANY
1000 W. 10th Street, Suite 2100
Tampa, FL 33604
PH: 813-288-1100
FAX: 813-288-1100

DOUGLASS PRECAST, INC.
1000 W. 10th Street, Suite 2100
Tampa, FL 33604
PH: 813-288-1100
FAX: 813-288-1100

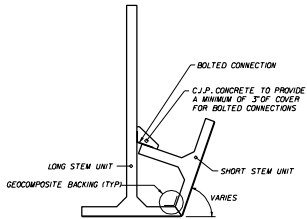
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN			
RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (3" COVER)			
Designed By	JMC	Date	10/0/20
Drawn By	CM	Checked By	REVISOR
Checked By	JMC	Date	10/0/20
Scale	00	Sheet No.	3 of 20
Project No.	5010	Revision	



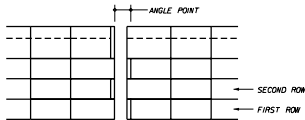
PART PLAN - FIRST ROW



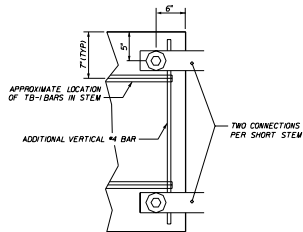
PART PLAN - SECOND ROW



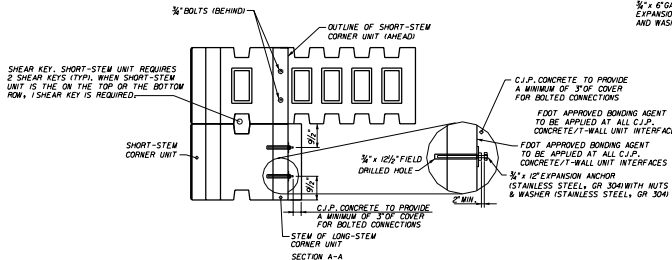
PART PLAN - ANGLE > 90°
SHORT AND LONG STEMS ALTERNATE
PER 90° CORNER DETAIL



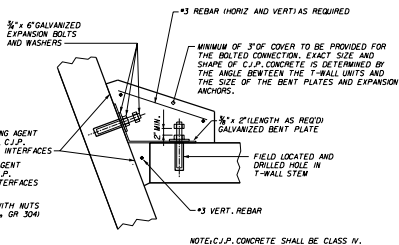
PART ELEVATION



VIEW B-B

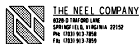


TYPICAL CORNER UNIT ARRANGEMENT
STEM LENGTHS VARY - SEE SPECIFIC
ELEVATIONS FOR PROPER UNITS
NO SCALE

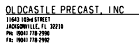


TYPICAL BOLTED CONNECTION FOR ANGLE POINTS

TYPICAL ANGLE POINT DETAIL
NO SCALE



THE NEEL COMPANY
6020 S. TRINITY LINE
SPRINGFIELD, FL 32150
PH: (321) 913-1936
FX: (321) 913-1855

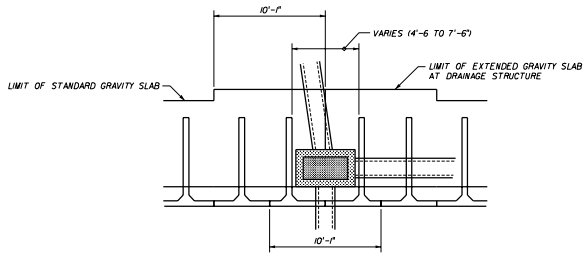


OLDCASTLE PRECAST, INC.
11843 18th STREET
JACKSONVILLE, FL 32218
PH: (904) 718-2996
FX: (904) 718-2992

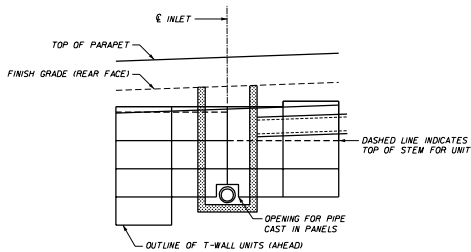
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

RETAINING WALL SYSTEM
THE NEEL COMPANY T-WALL
(3" COVER)

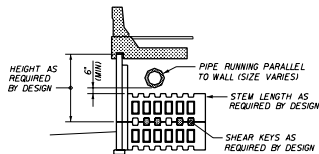
Designed By	Checked By	Approved By	Scale	Sheet No.	Total Sheets
JAC	02/20	WJZ		00	4 of 20
Drawn By	CAH	02/20		00	5010
Checked By	JAC	02/20		00	4 of 20




PART PLAN



PART ELEVATION (FRONT FACE)



SECTION
(SHOWING PIPE PARALLEL TO WALL)

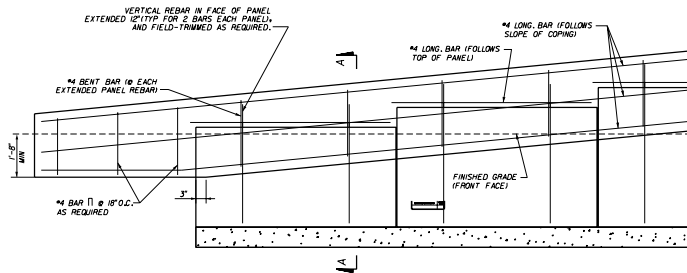
 **THE NEEL COMPANY**
 8330 S 170TH AVE
 SUITE 100 FLD 100-1004 20150
 P.O. BOX 923-1000
 FL 33051-9231

OLDCASTLE PRECAST, INC.
 11643 22ND STREET
 JACKSONVILLE, FL 32218
 P.O. BOX 778-2900
 FL 32211-7782

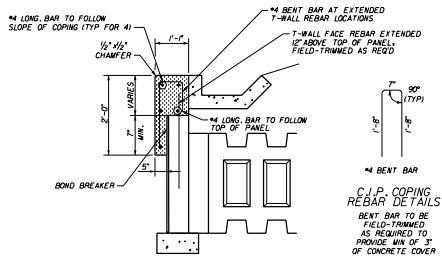
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
 ROAD DESIGN

**RETAINING WALL SYSTEM
 THE NEEL COMPANY T-WALL
 (3" COVER)**

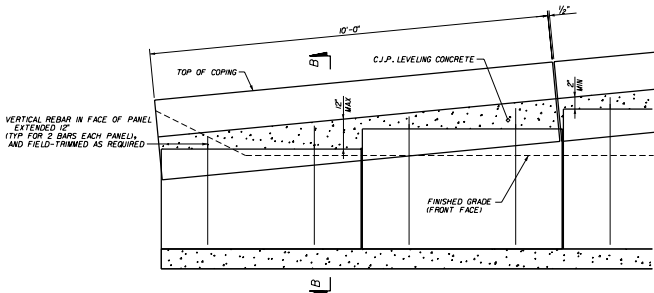
Designed By	Checked	Date	Approved By	Scale	Sheet No.	Total No.
JAC	JAC	03/07/98			5	10
Drawn By	CAI	03/07/98			5	10
Checked By	TCM	03/07/98			5	10



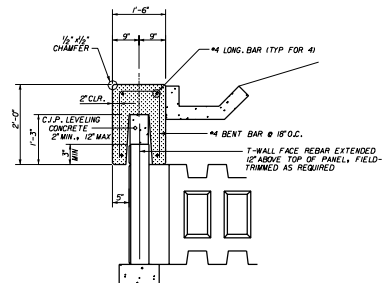
C.J.P. COPING TREATMENT AT BEGINNING/END OF WALLS



SECTION A-A
C.J.P. COPING



PRECAST COPING - PART ELEVATION



SECTION B-B
PRECAST COPING



THE NEEL COMPANY
8330 N. 116TH AVE
SPRING HILLS, VIRGINIA 20150
PH: (703) 913-7000
FX: (703) 913-7009

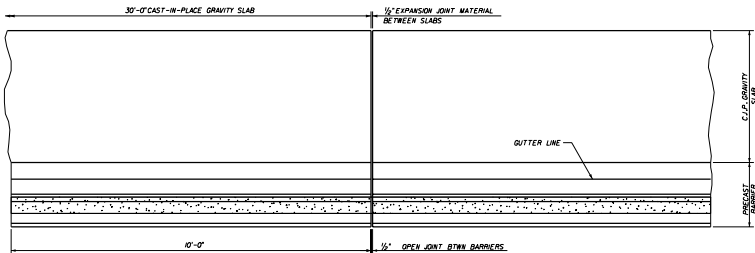
OLDCASTLE PRECAST, INC.
11400 164TH STREET
JACKSONVILLE, FL 32210
PH: (904) 778-2700
FX: (904) 778-2700

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

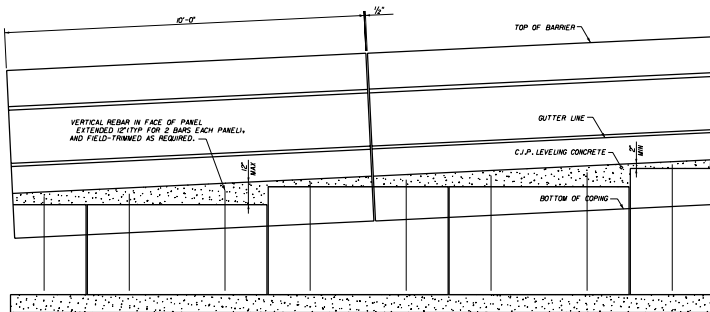
RETAINING WALL SYSTEM
THE NEEL COMPANY T-WALL
(3" COVER)

DESIGNED BY	CHECKED BY	DATE	APPROVED BY
JMC	JMC	02/09/00	[Signature]
CM	CM	02/09/00	
JMC	JMC	02/09/00	

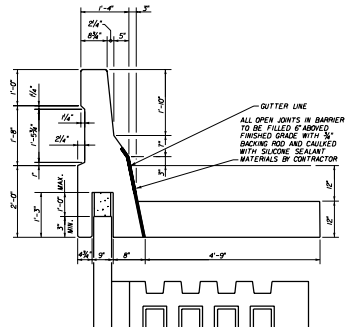
6 of 20 5010



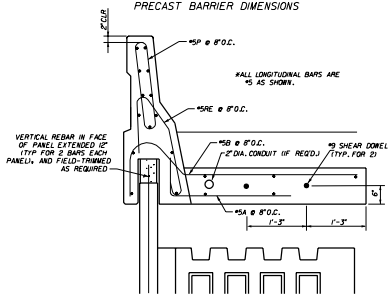
PART PLAN - PRECAST BARRIER



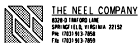
PART ELEVATION - PRECAST BARRIER



PRECAST BARRIER DIMENSIONS



PRECAST BARRIER REBAR



THE NEEL COMPANY
 8229 S 1901st LANE
 SPRING HILLS, FL 34615
 PH: (702) 813-7858
 FX: (702) 813-7859

OLDCASTLE PRECAST, INC.
 11823 12th STREET
 JACKSONVILLE, FL 32218
 PH: (904) 778-2900
 FX: (904) 778-2902

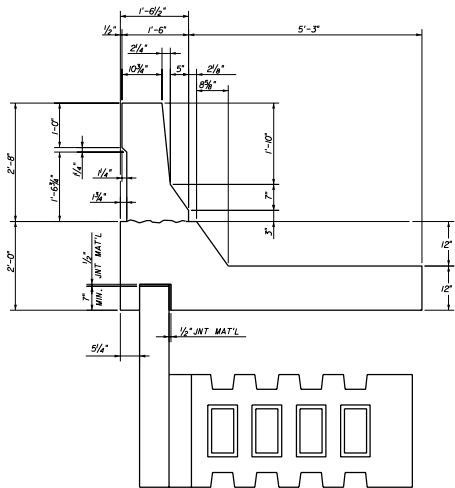
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
 ROAD DESIGN

RETAINING WALL SYSTEM
 THE NEEL COMPANY T-WALL
 (3" COVER)

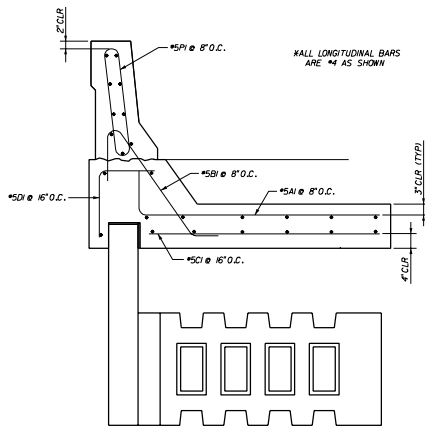
DESIGNED BY	CHECKED BY	DATE	APPROVED BY	SCALE	REVISION
JMC	JMC	02/07/98	<i>[Signature]</i>		
CAA	CAA	02/07/98			
JMC	JMC	02/07/98		00	7 of 20

5010

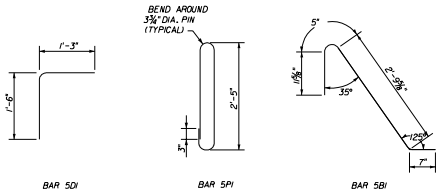
*****PROTECTED BY COPYRIGHT*****



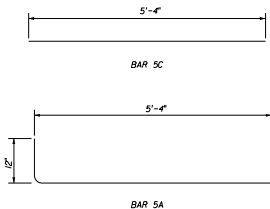
C.J.P. BARRIER AND C.J.P. JUNCTION SLAB DIMENSIONS



C.J.P. BARRIER AND C.J.P. JUNCTION SLAB REBAR



C.J.P. BARRIER REBAR DETAILS



BAR 5A

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ROAD DESIGN

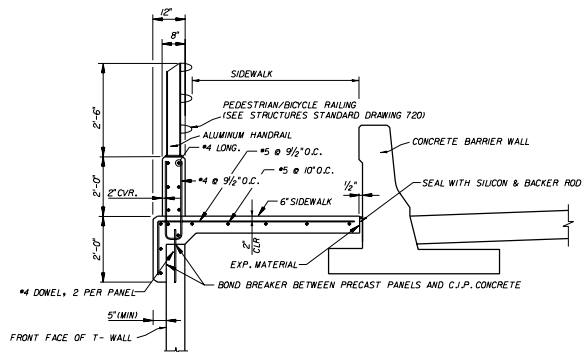
RETAINING WALL SYSTEM
THE NEEL COMPANY T-WALL
(3" COVER)

Drawn By	Checked By	Design	Approval
JAC	JAC	08/09	08/09
CM	CM	08/09	08/09
JAC	JAC	08/09	08/09

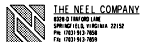


THE NEEL COMPANY
8800 S. TAVELAND LANE
SPRING HILL, FLORIDA 32150
PH: (352) 913-1000
TX: (352) 913-1001

OLDCASTLE PRECAST, INC.
11042 224th STREET
JACKSONVILLE, FL 32218
PH: (904) 776-2900
TX: (904) 776-2900



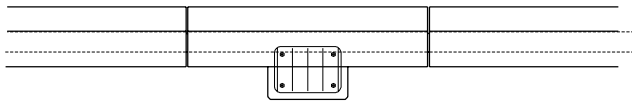
C.J.P. PARAPET DETAIL W/ HANDRAIL



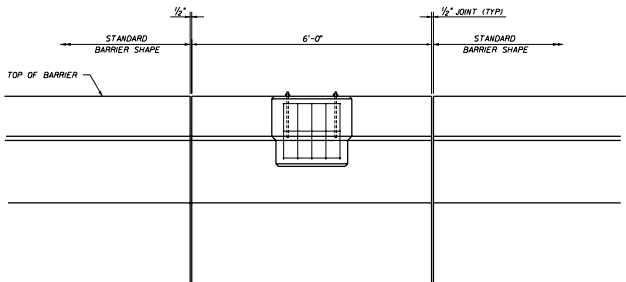
THE NEEL COMPANY
 8020 TAMMUND LANE
 SPRING HILLS, FLORIDA 32152
 PH: (727) 912-7000
 FX: (727) 912-7001

OLDCASTLE PRECAST, INC.
 11403 30th STREET
 JACKSONVILLE, FL 32216
 PH: (904) 778-2900
 FX: (904) 778-2902

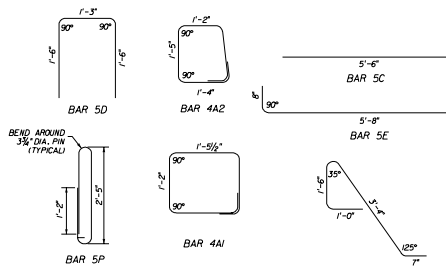
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN			
RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (3" COVER)			
DESIGNED BY	DATE	APPROVED BY	
JMC	08/09	<i>W. J. [Signature]</i>	
DRAWN BY	SCALE	REVISIONS	REVISIONS
CM	08/09		
CHECKED BY	NO.	OF	TOTAL
JMC	00	9	20
			5010



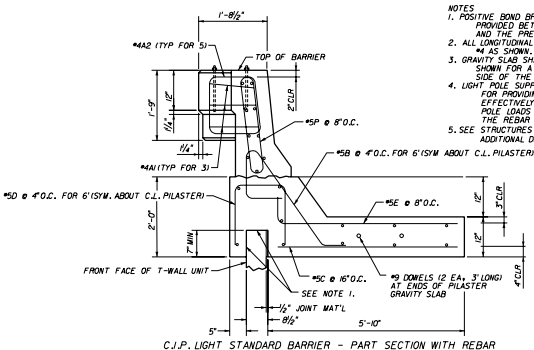
C.J.P. LIGHT STANDARD BARRIER - PART PLAN WITH REBAR
(BARRIER AND GRAVITY SLAB REBAR OMITTED FOR CLARITY)



C.J.P. LIGHT STANDARD BARRIER - PART ELEVATION
(BARRIER AND GRAVITY SLAB REBAR OMITTED FOR CLARITY)



C.J.P. LIGHT STANDARD BARRIER REBAR DETAILS



- NOTES**
1. POSITIVE BOND BREAKER SHALL BE PROVIDED BETWEEN THE C.J.P. CONC. AND THE PRECAST PANEL.
 2. ALL LONGITUDINAL BARS ARE #4 AS SHOWN.
 3. GRAVITY SLAB SHALL HAVE DIMENSIONS SHOWN FOR A MIN. LENGTH OF 10'-0" EITHER SIDE OF THE LIGHT STANDARD BARRIER.
 4. LIGHT POLE SUPPLIER IS RESPONSIBLE FOR PROVIDING ANCHOR BOLTS THAT EFFECTIVELY TRANSFER THE LIGHT POLE LOADS TO THE PILASTER AND FIT THE REBAR CASE.
 5. SEE STRUCTURES STANDARD DRAWING 500 FOR ADDITIONAL DETAILS.

C.J.P. LIGHT STANDARD BARRIER - PART SECTION WITH REBAR



THE NEEL COMPANY
 11400 N.W. 11TH AVE.
 SPRING HILL, FLORIDA 32150
 PH: (352) 913-3520
 FX: (352) 913-3520

OLDCASTLE PRECAST, INC.
 11400 N.W. 11TH AVE.
 SPRING HILL, FL 32150
 PH: (352) 913-3520
 FX: (352) 913-3520

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
 ROAD DESIGN

**RETAINING WALL SYSTEM
 THE NEEL COMPANY T-WALL
 (3" COVER)**

Revised	Date	Approved By
01/20/20	01/20/20	<i>[Signature]</i>
01/20/20	01/20/20	STEVE MERRITT, DESIGN ENGINEER
01/20/20	01/20/20	REVISION
01/20/20	01/20/20	00
01/20/20	01/20/20	10 of 20
01/20/20	01/20/20	5010