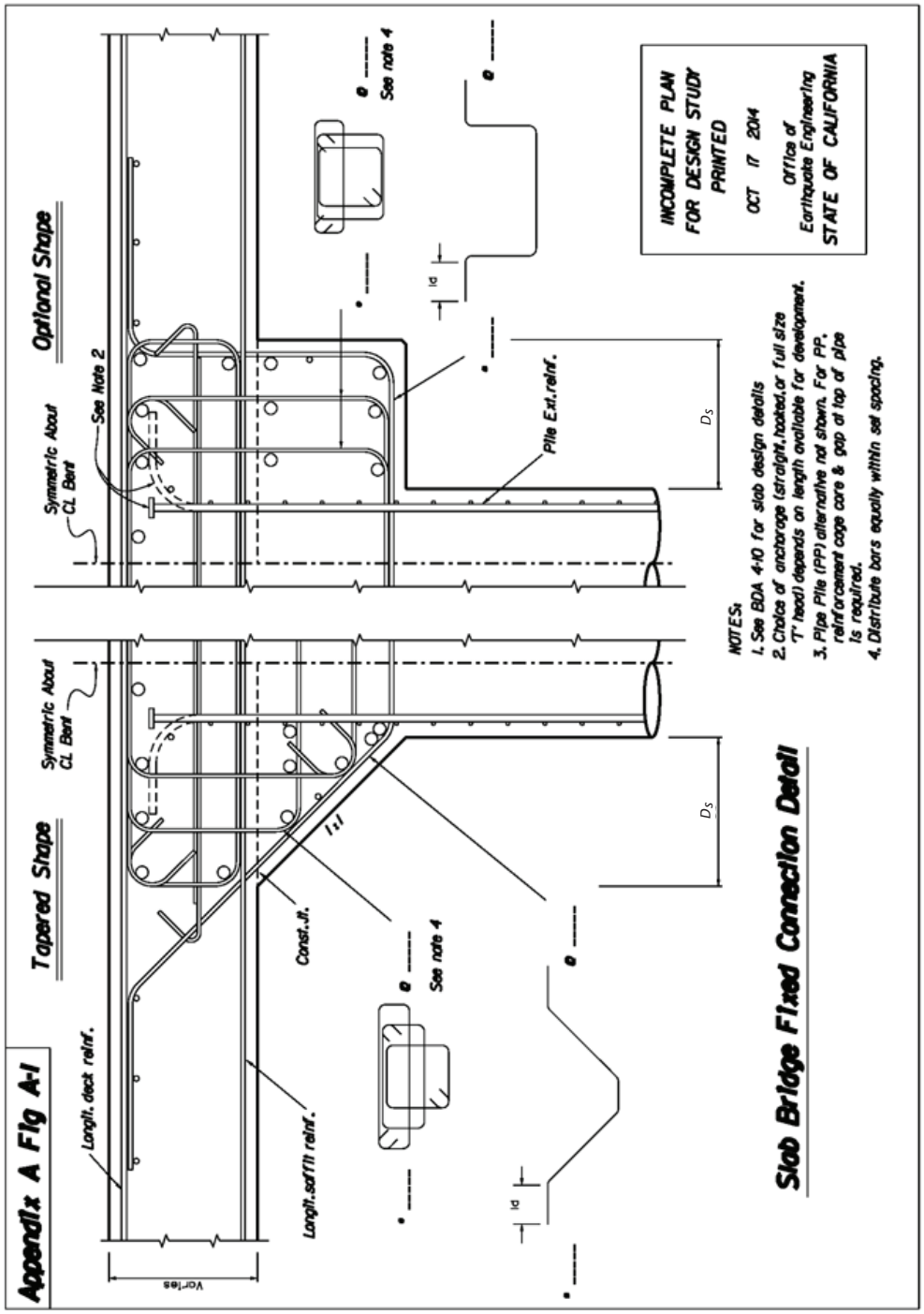
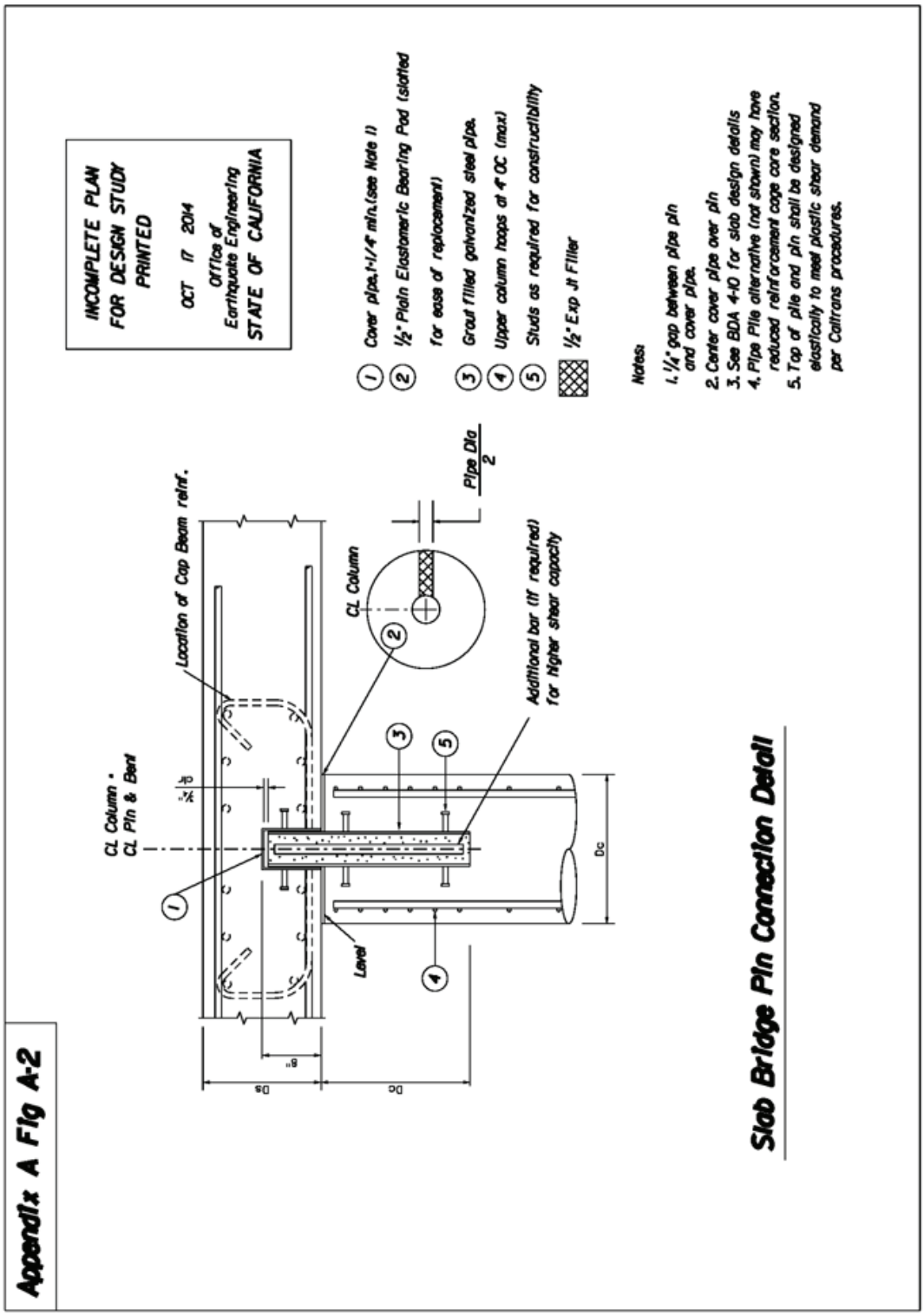
20-7A

APPENDIX A: Reinforcement Details for Column to Slab Connections and for Hinges

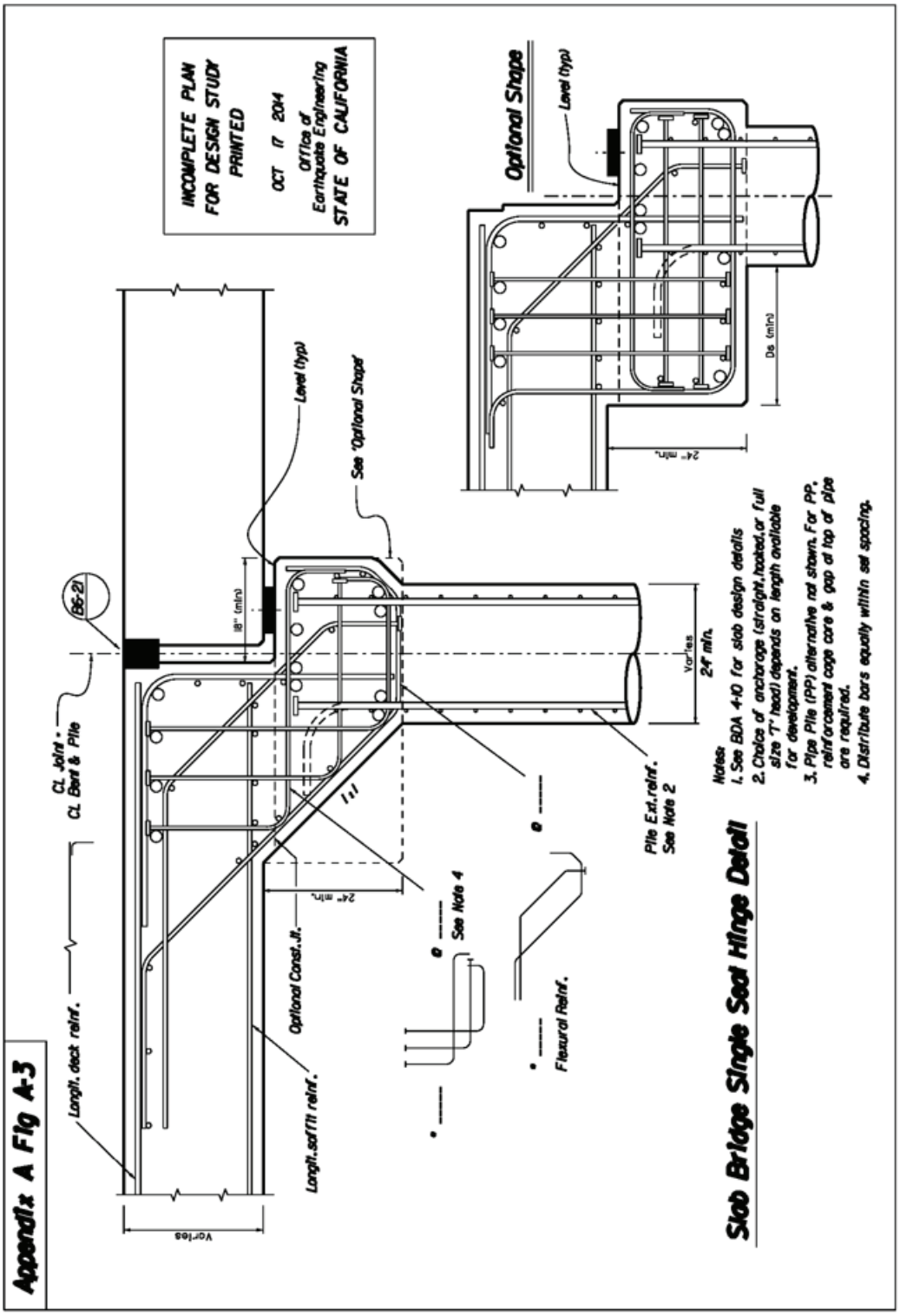


APPENDIX A



Note: The Bearing Pad in Figure A-2 has a slot to facilitate replacement while preventing movement.

APPENDIX A


Appendix A Fig A-3
INCOMPLETE PLAN
FOR DESIGN STUDY
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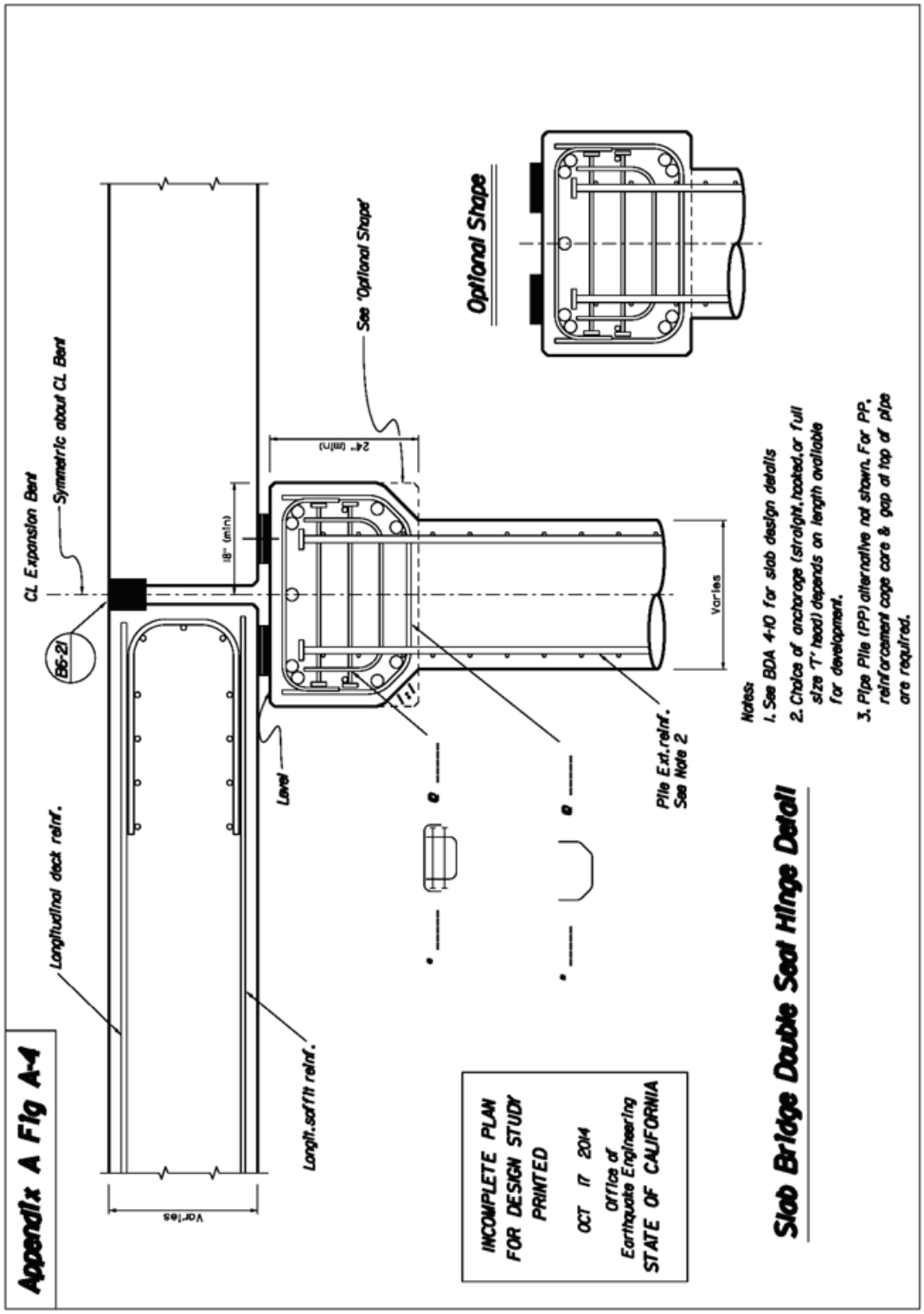
Optional Shape
Level (typ)
Ds (min)
24" min.
See "Optional Shape"
18" (min)
B6-21
CL Joint +
CL Bent & Pile
Varies
24" min.
Pile Ext.reinf.
See Note 2
See Note 4
Optional Const.Jt.
Longit.deck reinf.
Longit.soffit reinf.
Flexural Reinf.
Slab Bridge Single Seat Hinge Detail
Notes:
1. See BDA 4-10 for slab design details
2. Choice of anchorage (straight,hooked,or full size "T" head) depends on length available for development.
3. Pipe Pile (PP) alternative not shown. For PP, reinforcement cage core & gap at top of pipe are required.
4. Distribute bars equally within set spacing.

APPENDIX A


Appendix A Fig A-4
Longitudinal deck reinf.
Varies
Longit. soffit reinf.
CL Expansion Bent
Symmetric about CL Bent
B6-21
18" (min)
Level
24" (min)
See "Optional Shape"
Optional Shape
Varies
Pile Ext. reinf.
See Note 2
Notes:
1. See BDA 4-10 for slab design details
2. Choice of anchorage (straight, hooked, or full size "T" head) depends on length available for development.
3. Pipe Pile (PP) alternative not shown. For PP, reinforcement cage core & gap at top of pipe are required.
INCOMPLETE PLAN
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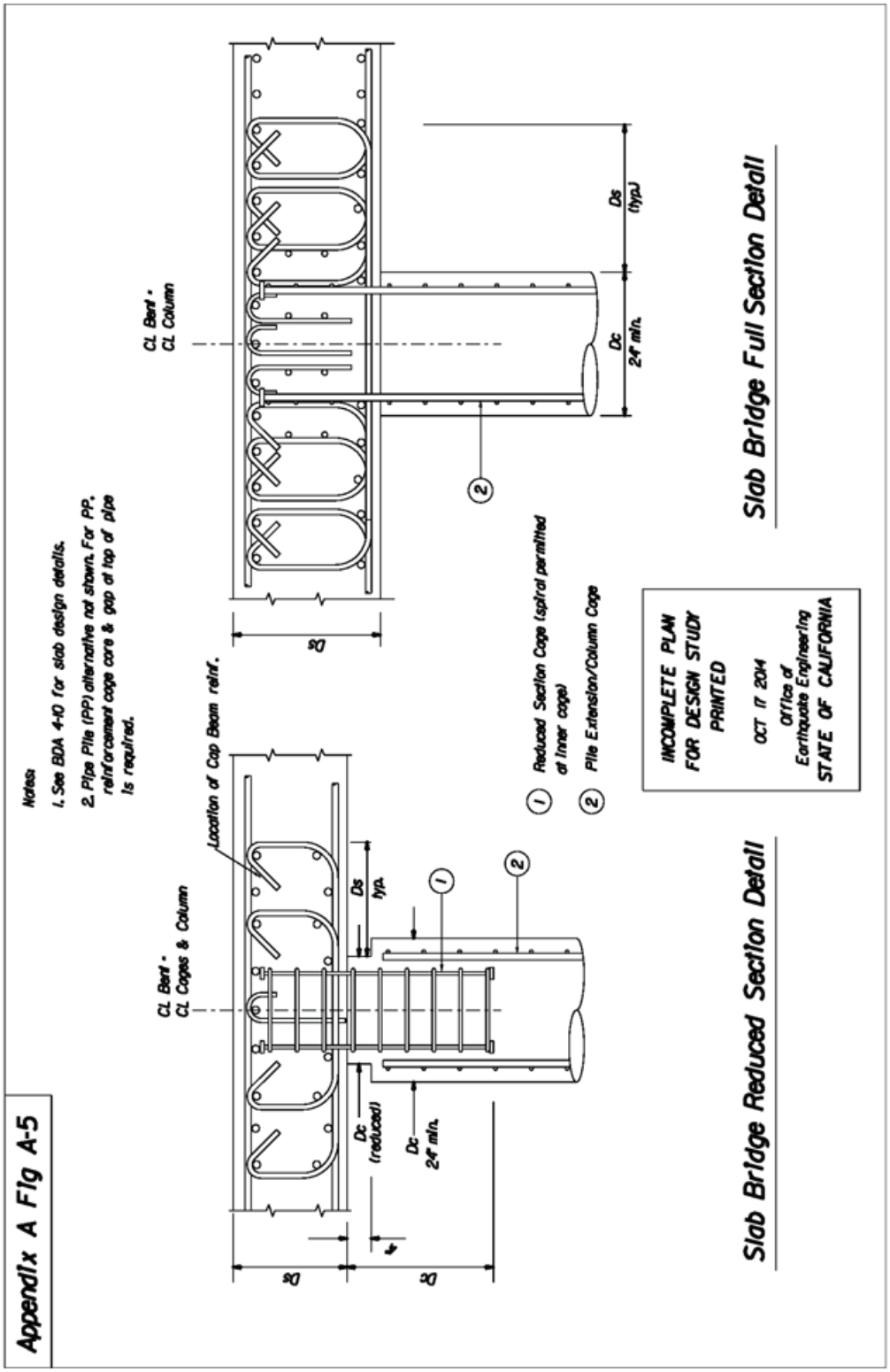
Slab Bridge Double Seat Hinge Detail

APPENDIX A


Appendix A Fig A-5
Notes:
1. See BDA 4-10 for slab design details.
2. Pipe Piles (PP) alternative not shown. For PP, reinforcement cage core & gap at top of pipe is required.
CL Bent -
CL Cages & Column
Location of Cap Beam reinf.
Ds
hyp.
Dc
(reduced)
Dc
24" min.
4"
Ds
Ds
CL Bent -
CL Column
Ds
(typ.)
Dc
24" min.
1 Reduced Section Cage (spiral permitted at inner cage)
2 Pile Extension/Column Cage
INCOMPLETE PLAN
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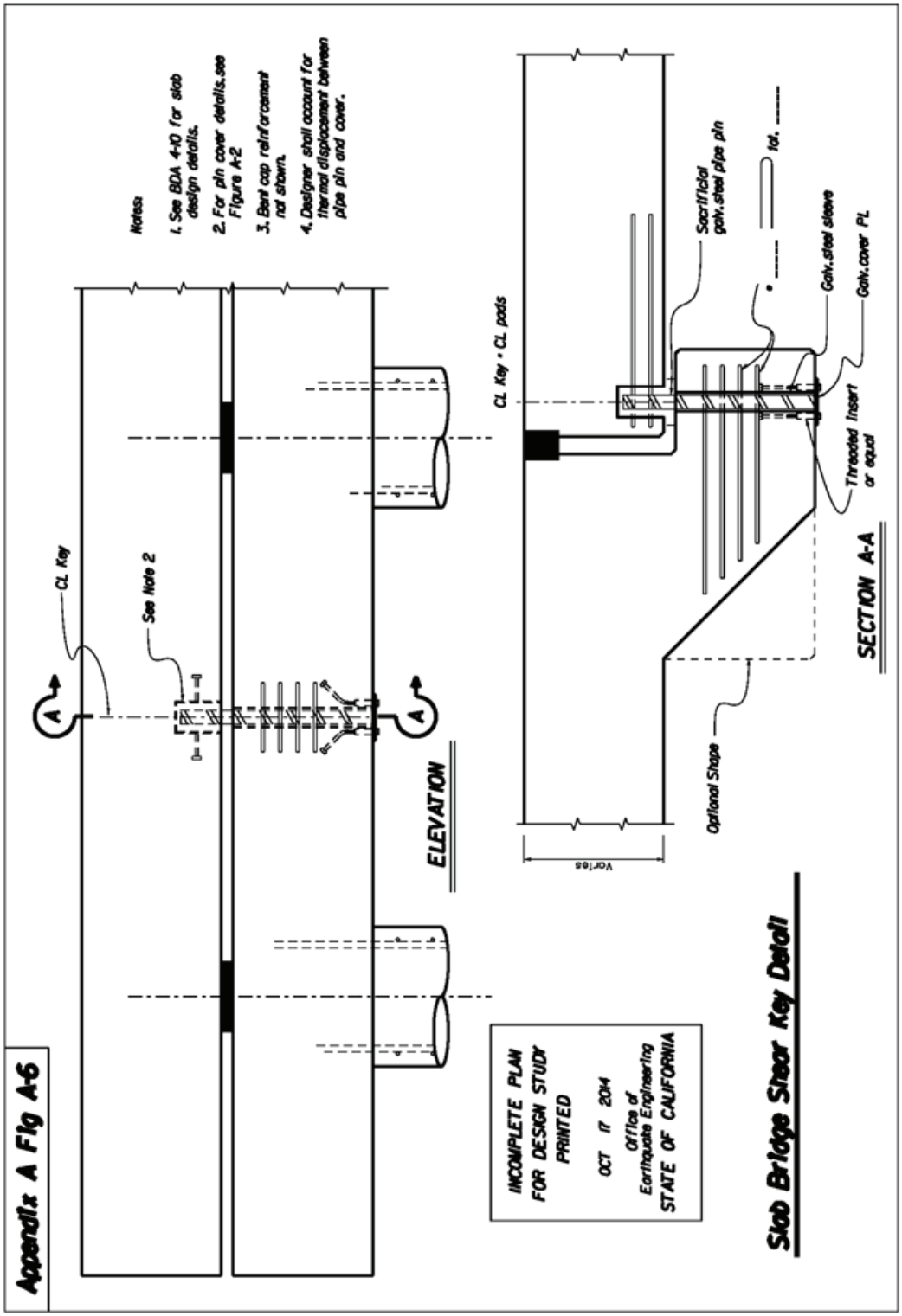
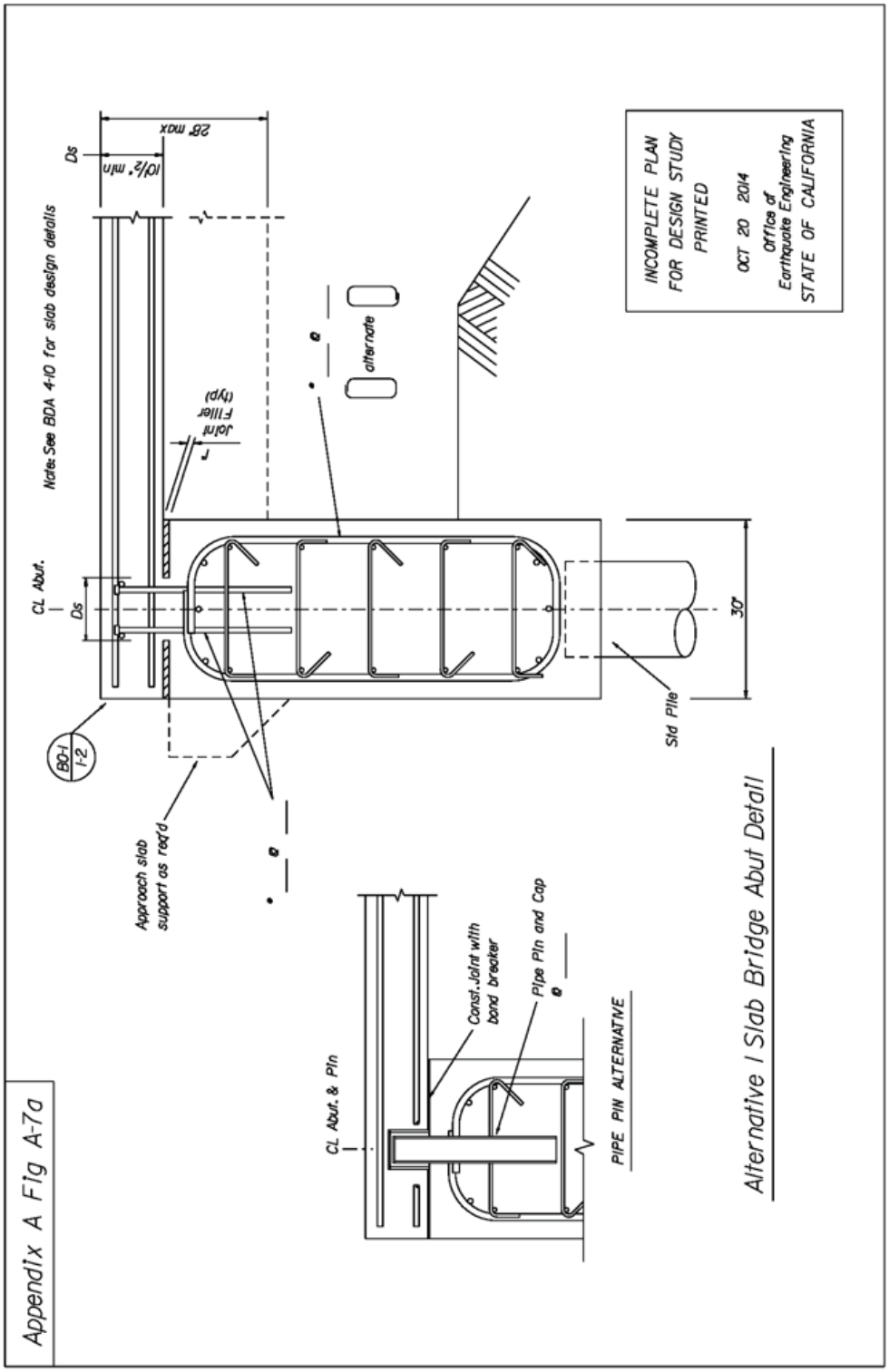
Slab Bridge Reduced Section Detail
Slab Bridge Full Section Detail

Appendix A



Note: Isolated shear keys in Figure A-6 are to prevent excessive movement during small earthquakes.

APPENDIX A


Appendix A Fig A-7a
Alternative I Slab Bridge Abut Detail
INCOMPLETE PLAN
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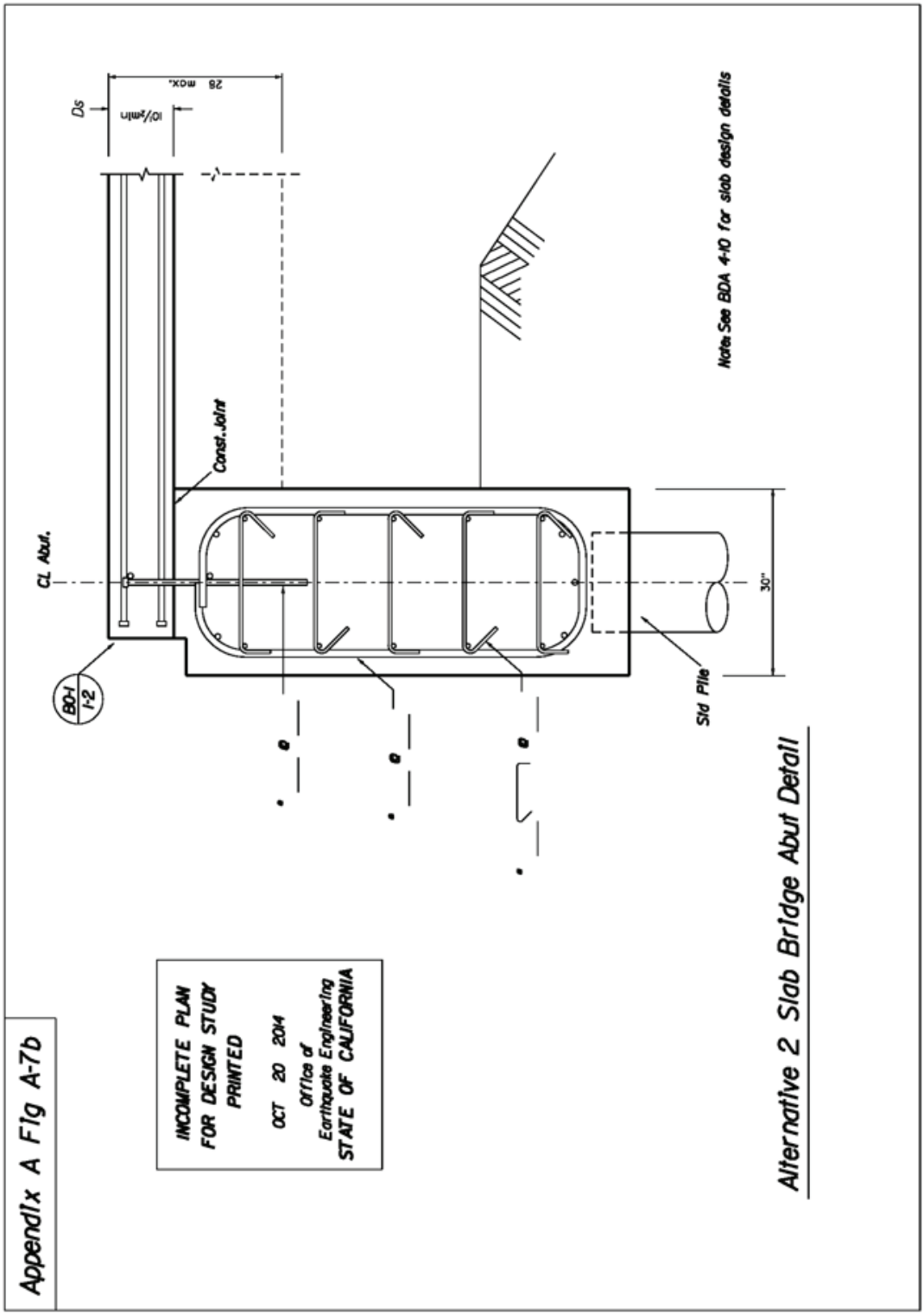
Note: See BDA 4-10 for slab design details
28" max
10½" min
Ds
CL Abut.
Joint Filler (typ)
alternate
30"
Std Pile
BO-1
1-2
Approach slab support as req'd
CL Abut. & Pin
Const. Joint with bond breaker
Pipe Pin and Cap
PIPE PIN ALTERNATIVE

APPENDIX A


Appendix A Fig A-7b
INCOMPLETE PLAN
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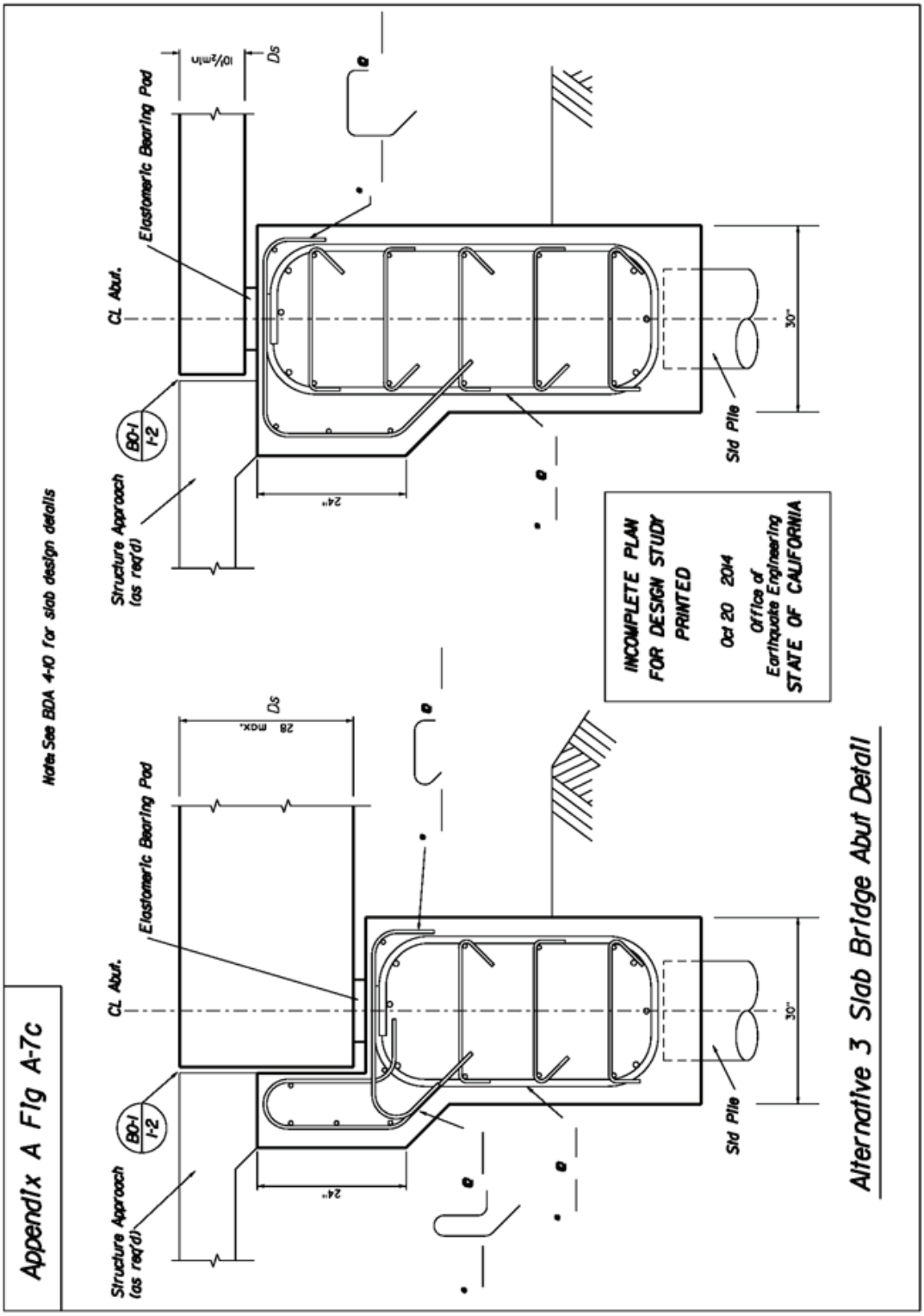
Alternative 2 Slab Bridge Abut Detail
Note: See BDA 4-10 for slab design details
Const. Joint
CL Abut.
Ds
28 max.
10½ min
30"
Std Pile
BO-1
1-2

APPENDIX A


Appendix A Fig A-7c
Note: See BDA 4-10 for slab design details
Elastomeric Bearing Pad
CL Abut.
Structure Approach (as req'd)
BO-1 1-2
Ds
10½min
28 max.
24"
30"
Std Pile
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Alternative 3 Slab Bridge Abut Detail