

Aesthetic Bridges Visual Reference Library



A guide to
precedent
Iowa DOT
aesthetic
structures
and special
treatments

Prepared by the Bridges
and Structures Bureau
Methods Unit

IOWA | DOT

Aesthetic Bridges Visual Reference Library

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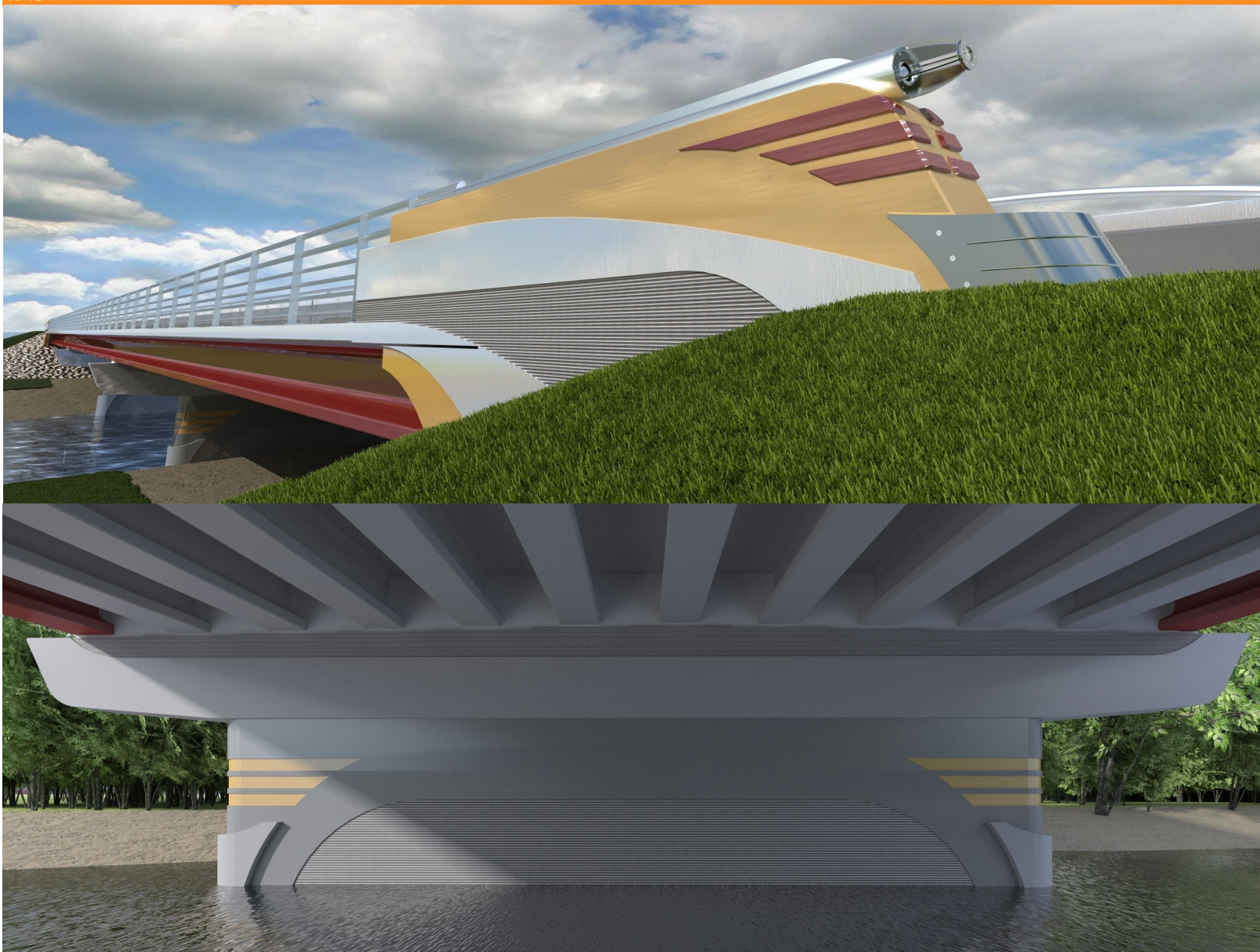
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Bridges: US 169 over E. Fork Des Moines River, Algona, IA

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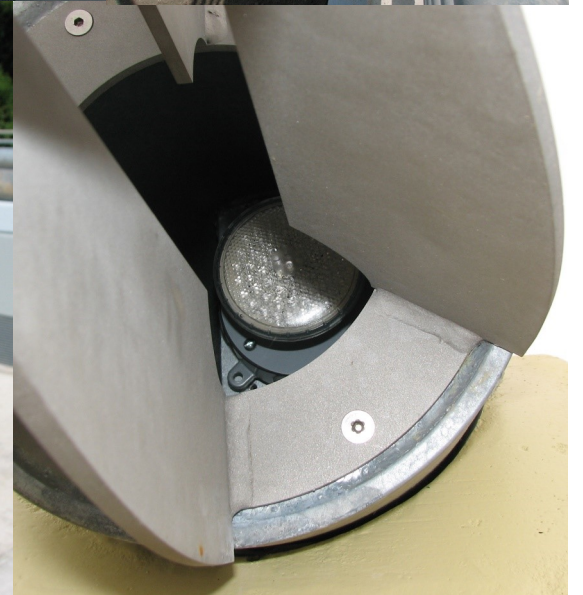
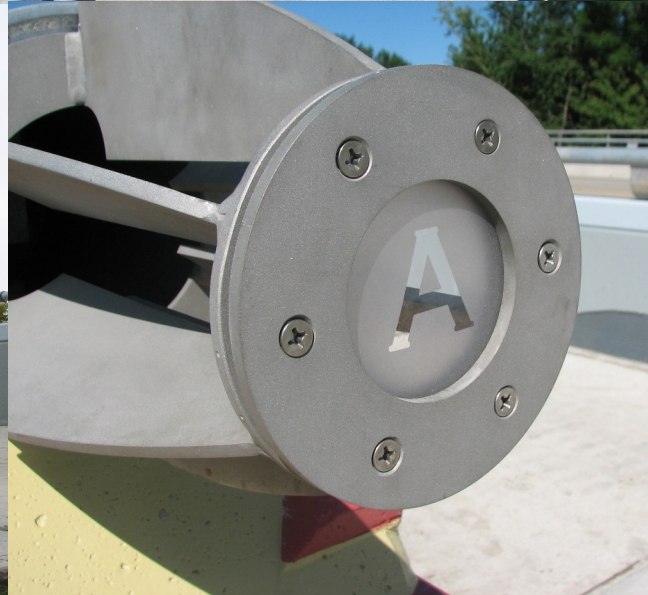


Kossuth County Design No. 107

- Project No. BRF-169-8(41)—38-55
- FHWA No. 032921
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Algona US 169
- 3D model (.skp) available
- Features:
 - Custom pedestrian pipe railing (galvanized)
 - Ornamental steel attachments (galvanized and stainless steel)
 - Special aesthetic separation barrier design
 - Special pier and abutment shaping
 - Secondary pier stem "jacket" concrete pours
 - Special light pole base design
 - Rustication and form liner texture
 - Concrete coatings (colored sealer)
 - Special lighting (by City)
- Costs (2006):
 - Colored Sealer Coating \$24/SY (\$31/SY avg bid)
 - Pedestrian Hand Railing \$108/LF (\$115/LF avg bid)
 - Ornamental steel \$50,000 (estimated)

Bridges: US 169 over E. Fork Des Moines River, Algona, IA

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Bridges: I-35 over NE 36th St and E. 1st St DDI, Ankeny, IA

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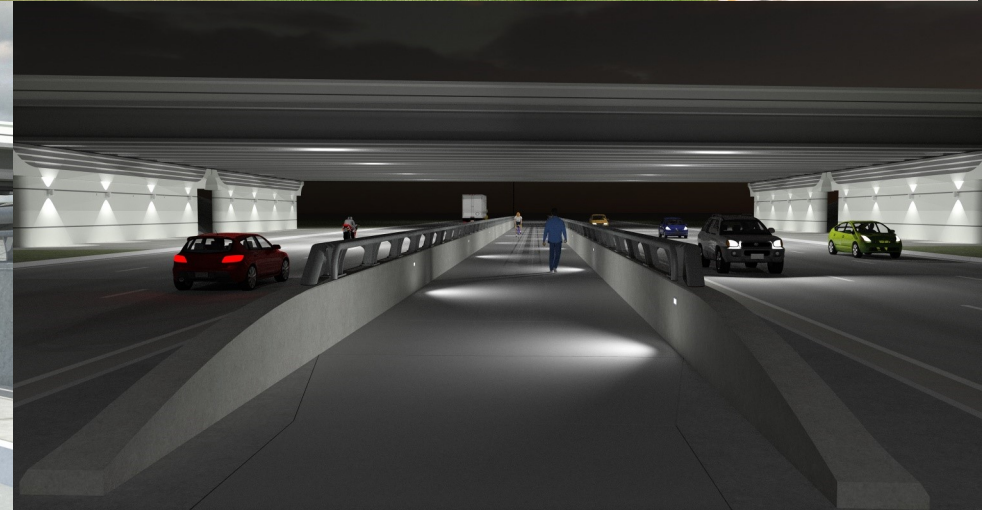


Polk County Design Nos. 211/711 & Polk County Design Nos. 518/618

- Project Nos. IM-035-4(138)94-13-77 (NE 36th St) IM-035-4(193)93-03-77/IM-035-4(195)93-03-77 (E. 1st St DDI)
- FHWA Nos. 41841/41831 (NE 36th St), 41791/41801 (E. 1st St DDI)
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Ankeny (various)
- 3D model (.skp) available (for each)
- Features:
 - Special pier and abutment shaping
 - Special aesthetic traffic barriers
 - Concrete rustication (incl. traffic barriers)
 - Concrete coatings (colored sealer)
 - Special steel-on-concrete barrier at 1st St trail
 - Special lighting (by City, both locations)
- Costs (2011 and 2019):
 - Colored Sealer Coating \$18.50/SY (2011)
 - Colored Sealer Coating \$52/SY (2019)
 - Steel Traffic Railing at E.1st St trail \$250/LF (2019)

Bridges: I-35 over NE 36th St and E. 1st St DDI, Ankeny, IA

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Bridges: Corporate Woods Drive over I-35, Ankeny, IA

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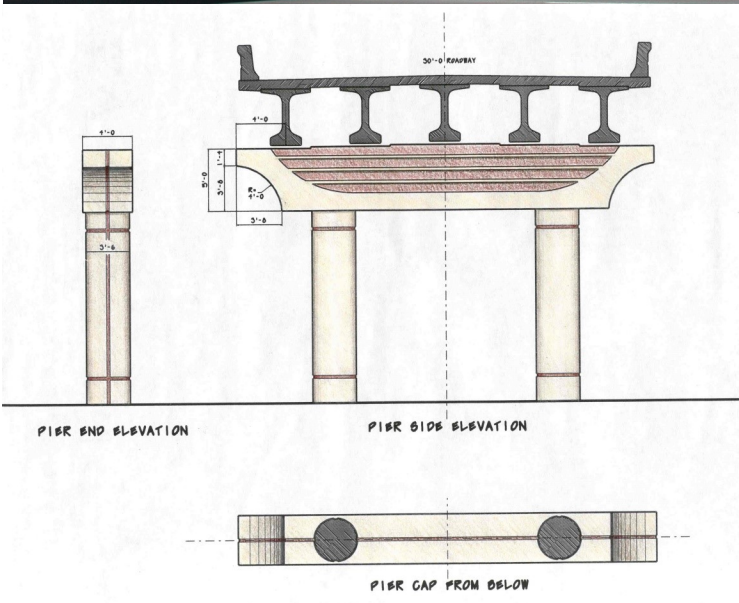


Polk County Design No. 4903

- Project No. NHS-035-4(111)87-11-77
- FHWA No. 609280
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Ankeny (various)
- Note: similar bridges built over I-80 near Altoona in 2006 (FHWA No. 42061) and in 2013 (FHWA No. 42011)
- Features:
 - Special pier and abutment shaping
 - Concrete rustication (incl. traffic barriers)
 - Concrete coatings (colored sealer)
 - Special light pole support design
 - Custom welded wire mesh pedestrian fence
 - Custom tube railing at abutments
 - Parapet under fence
- Costs (2003):
 - Colored Sealer Coating \$8/SY (\$22.67/SY avg bid)
 - Welded wire mesh pedestrian fence \$180/LF (\$178/LF avg bid)
 - Tube railing at abutments \$150/LF (\$170/LF avg)

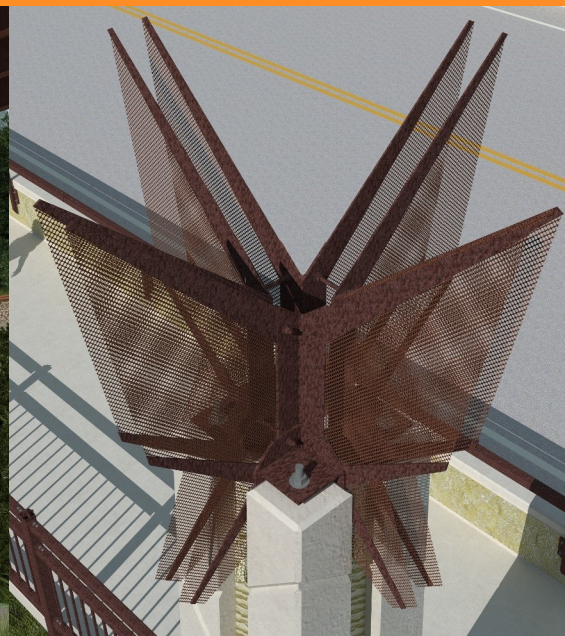
Bridges: Corporate Woods Drive over I-35, Ankeny, IA

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Bridges: US 52 over I.C.E.R.R. & Mill Creek, Bellevue, IA

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Jackson County Design No. 108

- Project No. BRF-052-1(70)—38-49
- FHWA No. 609770
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Bellevue US 52
- 3D model (.skp) available
- Features:
 - Special pier and abutment shaping
 - Concrete rustication and form liner texture (incl. traffic barriers)
 - Concrete coatings (colored sealer)
 - Custom weathering steel pedestrian railing
 - Decorative towers supported on abutments
 - Ornamental weathering steel tower crowns
 - Abrasive blast finished concrete (towers)
 - Decorative limestone blocks (at pier columns)
- Costs (2008):
 - Colored Sealer Coating \$37/SY (\$62/SY avg bid)
 - Weathering steel pedestrian railing \$239/LF (\$259/LF avg bid)
 - Textured concrete barrier \$68/LF ((\$84/LF avg bid)

Bridges: US 52 over I.C.E.R.R. & Mill Creek, Bellevue, IA

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Bridges: US 61 SB over Flint Creek, Burlington, IA

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Des Moines County Design No. 117

- Project No. NHSX-061-2(71)—3H-29
- FHWA No. 700760
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Burlington US 61
- Note: NB US 61 bridge built in 2021 (FHWA No. 23491) with some identical features (no trail)
- 3D model (.skp) available
- Features:
 - Special pier and abutment shaping
 - Special steel-on-concrete traffic barriers
 - Concrete rustication and form liner texture
 - Custom, side-mounted weathering steel plate pedestrian railing
 - Decorative monoliths supported on abutments
 - Custom form liner molds from 3D printed fossils
- Costs (2018):
 - Weathering steel pedestrian railing \$260/LF (one bid)
 - Steel-on-concrete traffic barrier \$170/LF (one bid)

Bridges: US 61 SB over Flint Creek, Burlington, IA

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Bridges: Viking Road SPUI over IA 58, Cedar Falls, IA



Black Hawk County Design No. 317

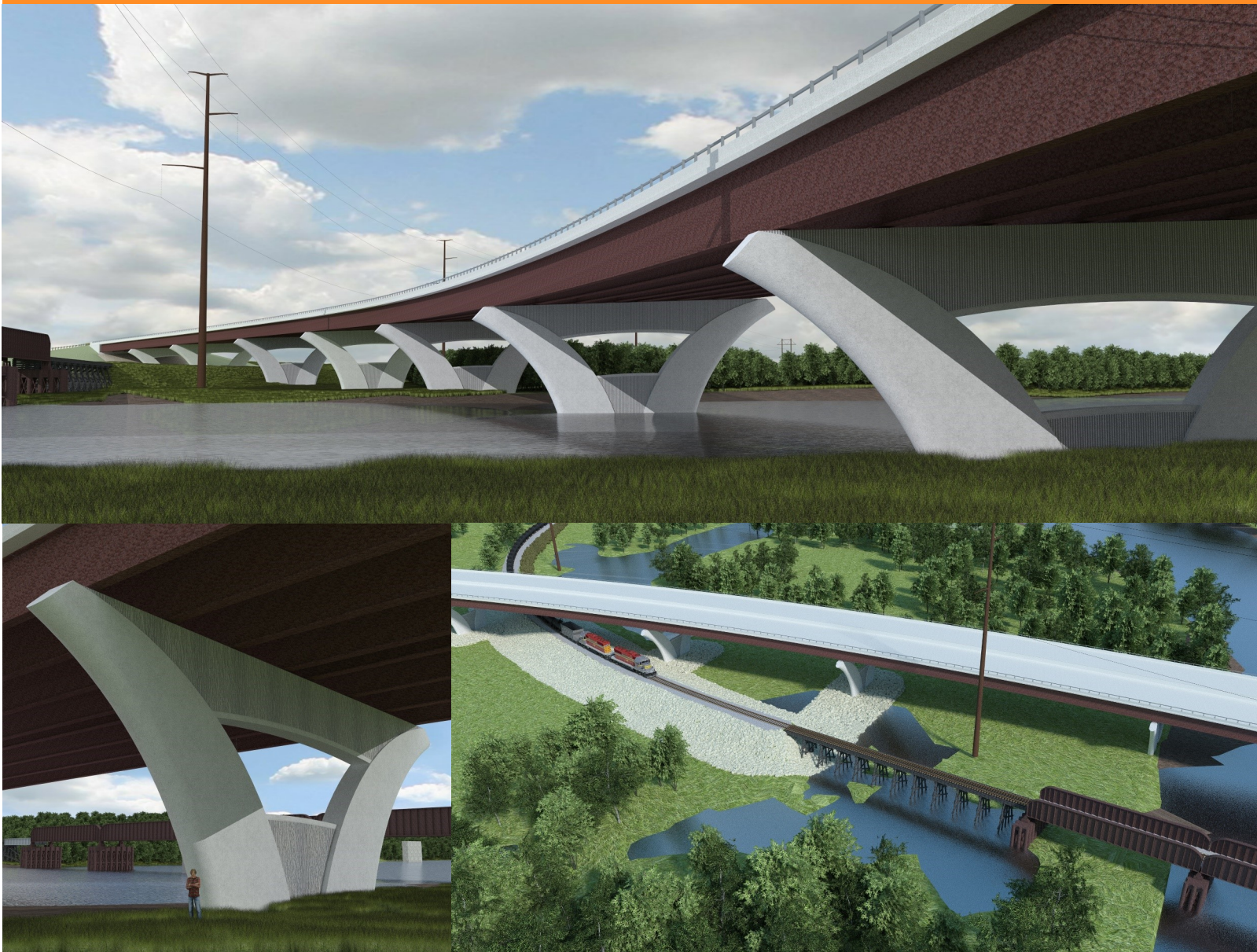
- Project No. NHSX-058-1(94)—3H-07
- FHWA No. 700880
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Cedar Falls (various)
- Features:
 - Special aesthetic traffic barriers
 - Concrete rustication and form liner texture
 - Custom welded picket railing
 - Concrete coating (mineral silicate paint)
 - Decorative steel arches
 - Colored pavers at islands
 - Special lighting (by City)
- Costs (2018):
 - Aesthetic barrier \$85/LF (\$165/LF avg bid)
 - Welded picket railing \$283/LF (\$227/LF avg bid)
 - Concrete coating \$69.10/SY (\$69.10/SY avg bid)
 - Decorative arches (2) \$61,000 (\$73,333 avg bid)
 - PCC pavers \$14.67/SF (\$15.22/SF avg bid)

Bridges: Viking Road SPUI over IA 58, Cedar Falls, IA



Bridges: IA 100 over Cedar River, Cedar Rapids, IA

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Linn County Design No. 114

- Project No. NHSX-100-1(46)—3H-57
- FHWA No. 700375
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Cedar Rapids IA 100 Corridor
- 3D model (.skp) available
- Features:
 - Special large river pier shaping
 - Special steel-on-concrete traffic barriers
 - Concrete rustication and form liner texture
 - Hidden deck drains
- Costs (2014):
 - Steel-on-concrete traffic barrier \$115/LF (\$131/LF avg bid)

Bridges: IA 100 over Cedar River, Cedar Rapids, IA

KMO



Bridges: Covington Rd and E Ave over IA 100, Cedar Rapids, IA

KMO



Linn County Design No. 214 and Linn County Design No. 915

- Project Nos. NHSX-100-1(42)—3H-57 (Covington Rd) and NHSX-100-1(93)—3H-57 (E Avenue)
- FHWA Nos. 700430 (Covington Rd) and 700610 (E Avenue)
- Also see 80th St SW over US 30 (FHWA No. 605686)
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Cedar Rapids IA 100 Corridor
- 3D model (.skp) available (pier only)
- Features:
 - Special wall pier and abutment shaping
 - Special aesthetic traffic barriers
 - Integral thin veneer brick
 - Concrete rustication and form liner texture
- Costs (2014, Covington Rd):
 - Integral thin veneer brick \$45/SF (\$33/SF avg bid)
 - Aesthetic barrier \$97/LF (\$94/LF avg bid)
- Costs (2016, E Avenue):
 - Integral thin veneer brick \$32/SF (\$32/SF avg bid)
 - Aesthetic barrier \$95/LF (\$114/LF avg bid)

Bridges: Covington Rd and E Ave over IA 100, Cedar Rapids, IA

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Bridges: IA 100 over Ushers Ferry Rd, Cedar Rapids, IA



Linn County Design Nos. 414/1214

- Project No. NHSX-100-1(65)—3H-57
- FHWA No. 700445 (EB) and 700450 (WB)
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Cedar Rapids IA 100 Corridor
- 3D model (.skp) available
- Features:
 - Special pier shaping incl. diaphragm mask wall
 - Special abutment shaping
 - Special aesthetic traffic barriers
 - Integral thin veneer brick
 - Concrete rustication and form liner texture
 - Concrete coating (colored sealer)
- Costs (2014):
 - Integral thin veneer brick \$51/SF (\$40/SF avg bid)
 - Aesthetic barrier \$105/LF (\$113/LF avg bid)
- Costs (2019 bridge painting project)
 - Concrete coating \$50/SY (\$59/SY avg bid)

Bridges: IA 100 over Ushers Ferry Rd, Cedar Rapids, IA

KMO



Bridges: Edgewood Road SPUI over IA 100, Cedar Rapids, IA

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Linn County Design No. 514

- Project No. NHSX-100-1(66)—3H-57
- FHWA No. 700455
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Cedar Rapids IA 100 Corridor
- 3D model (.skp) available
- Features:
 - Special traffic barriers with light pole supports
 - Integral thin veneer brick
 - Colored PCC pavers on SPUI curbed islands
 - Concrete coating (colored sealer)
 - Special lighting (by City)
- Costs (2014):
 - Integral thin veneer brick \$50/SF (\$49/SF avg bid)
 - Aesthetic barrier \$100/LF (\$99/LF avg bid)
- Costs (2019 bridge painting project)
 - Concrete coating \$50/SY (\$59/SY avg bid)

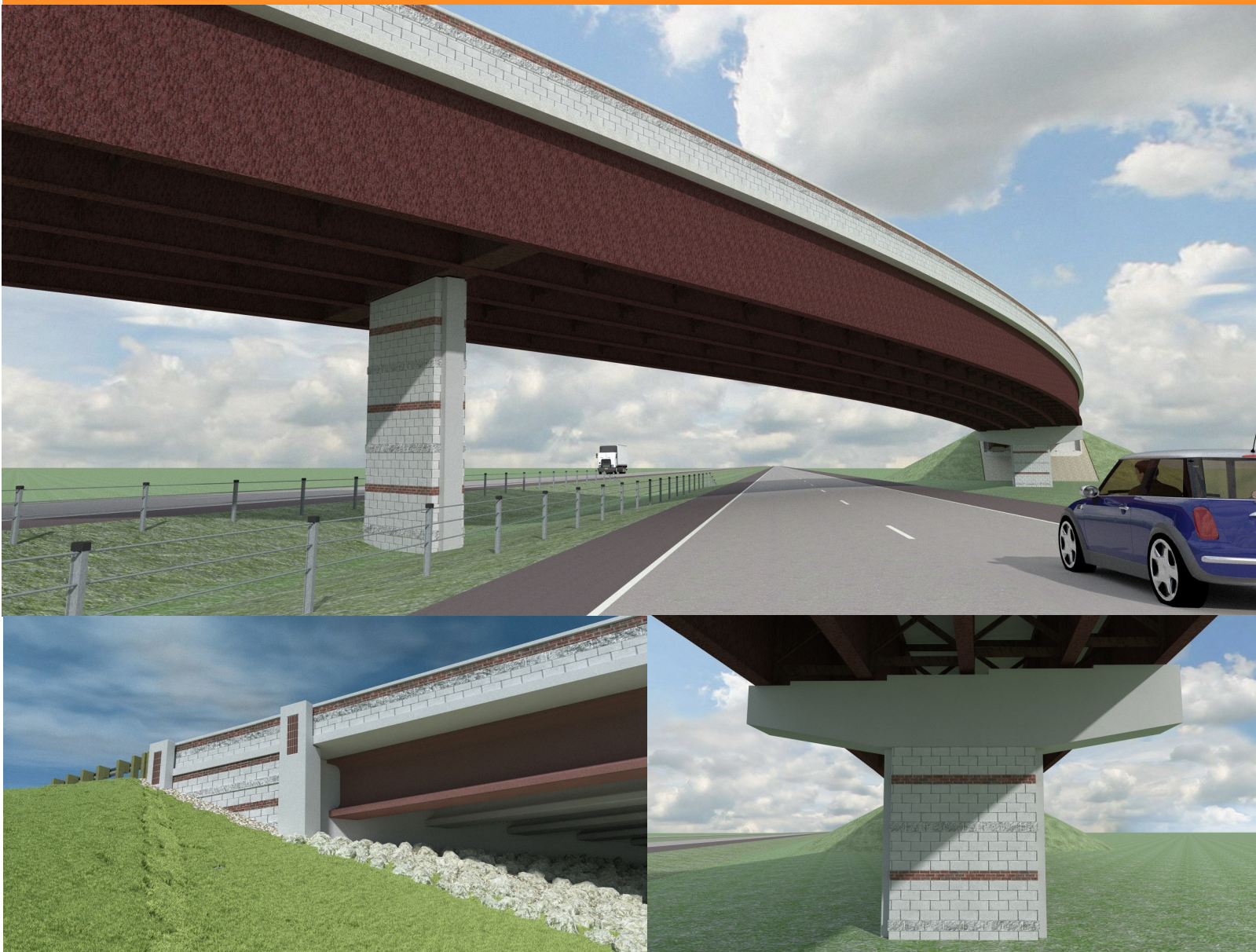
Bridges: Edgewood Road SPUI over IA 100, Cedar Rapids, IA

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Bridges: IA 100 and US 30 Interchange, Cedar Rapids, IA

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Linn County Design Nos. 415, 515, and 615

- Project Nos. NHSX-100-1(88)—3H-57, NHSX-100-1(89)—3H-57, NHSX-100-1(90)—3H-57
- FHWA Nos. 700585, 700590, 700595
- Also see 80th St SW over US 30 (FHWA No. 605686)
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Cedar Rapids IA 100 Corridor
- 3D model (.skp) available
- Features:
 - Special aesthetic traffic barriers
 - Integral thin veneer brick
 - Concrete texture and rustication
- Costs (2016):
 - Integral thin veneer brick \$29/SF (\$37/SF avg bid)
 - Aesthetic barrier \$80/LF (\$105/LF avg bid)

Bridges: IA 100 and US 30 Interchange, Cedar Rapids, IA

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Bridges: IA 141 over Middle Raccoon Creek, Coon Rapids, IA

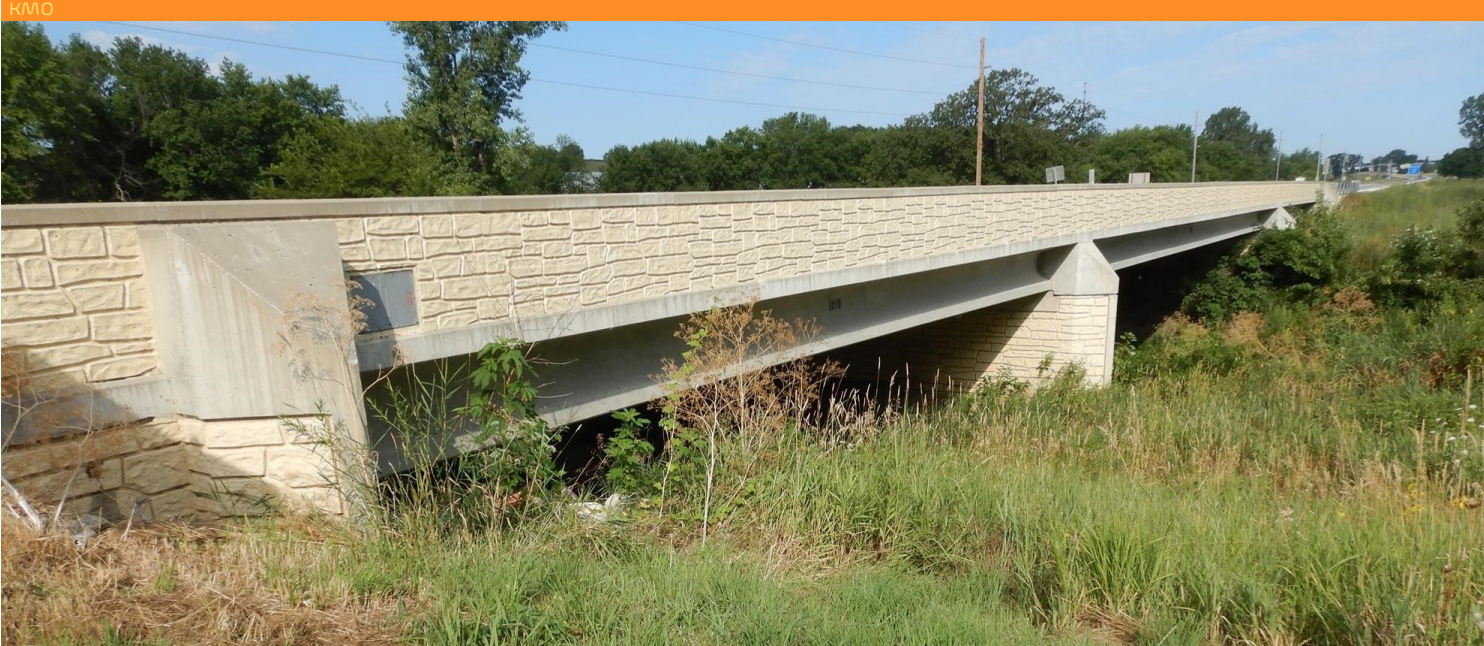
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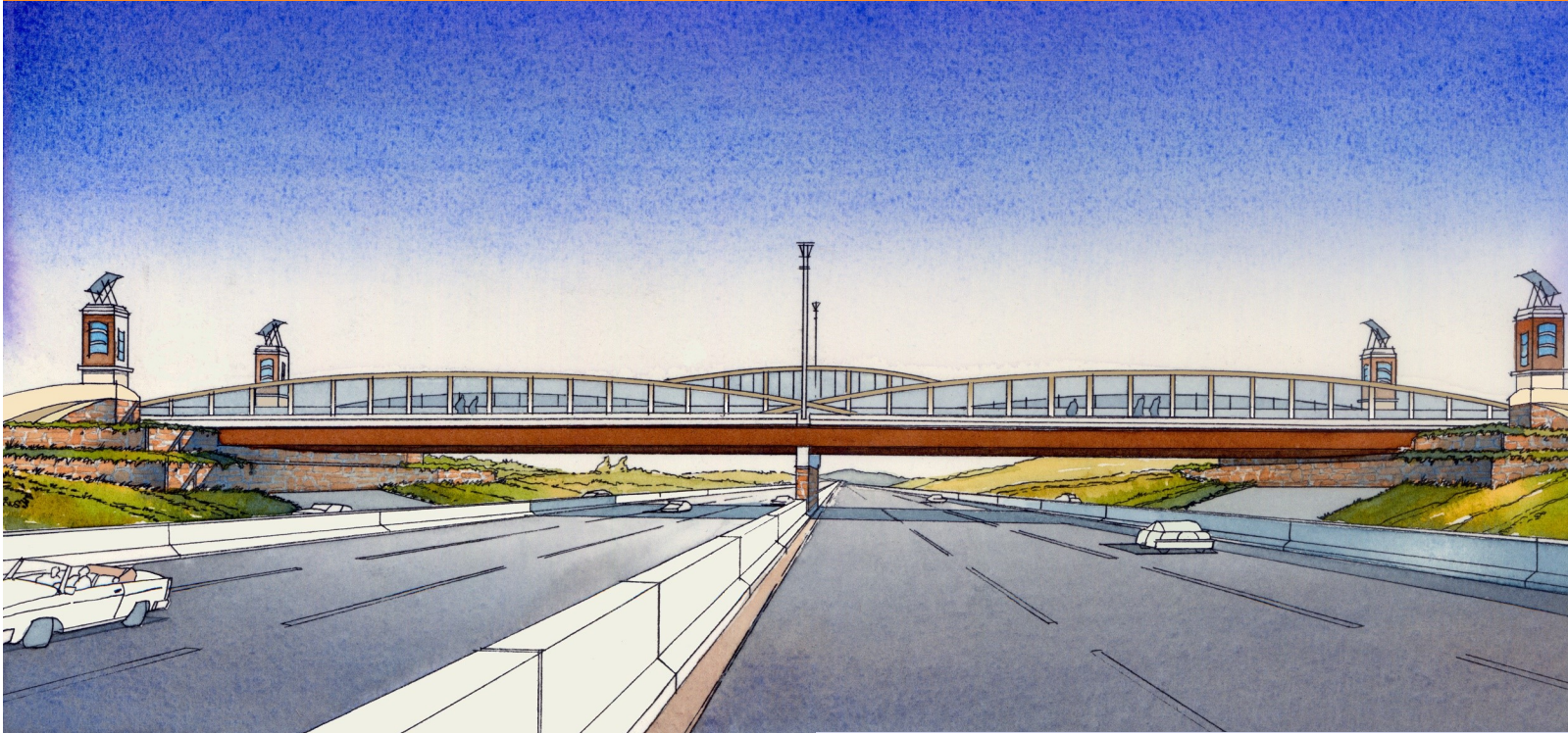
Guthrie County Design No. 314

- Project Nos. BRFN-141-5(18)-39-39
- FHWA No. 26271
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Coon Rapids IA 141
- 3D model (.skp) available
- Features:
 - Special pier shaping incl. diaphragm mask wall
 - Special abutment shaping
 - Special aesthetic traffic barriers
 - Concrete texture and rustication
 - Concrete coating (colored sealer)
- Costs (2014):
 - Colored sealer coating \$36/SY (\$32/SY avg bid)
 - Aesthetic barrier \$125/LF (\$122.50/LF avg bid)

Bridges: IA 141 over Middle Raccoon Creek, Coon Rapids, IA



Bridges: 24th Street over I-80/I-29, Council Bluffs, IA



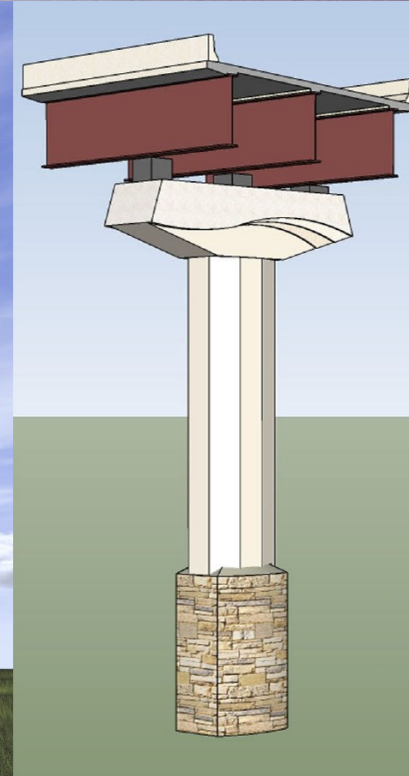
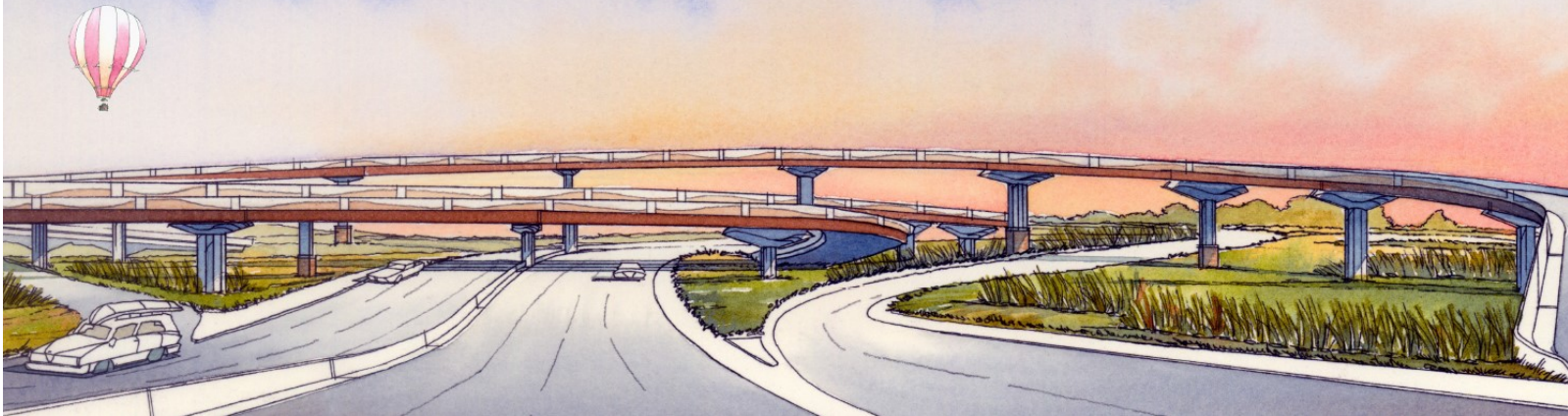
Pottawattamie County Design No. 508

- Project No. IM-080-1(308)2-13-78
- FHWA No. 44691
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Council Bluffs Interstate System
- Features:
 - Special pier and abutment shaping
 - Custom welded wire mesh fence
 - Sideslope retaining walls
 - Integrated artwork support structures
 - Concrete texture and rustication
 - Concrete coating (colored sealer)
 - Real stone veneer at abutments (unbuilt)
 - Special lighting incl. linear fiber optics (by City)
 - Albert Paley sculptures (by City and partners)
- Costs (2007):
 - Colored sealer coating \$59.45/SY (\$60/SY avg bid)
 - Welded wire mesh fence \$248/LF (\$329/LF avg)
 - Stone veneer (unbuilt) \$89/SF (\$76/SF avg bid)

Bridges: 24th Street over I-80/I-29, Council Bluffs, IA



Bridges: CBIS System Interchange Bridges, Council Bluffs, IA



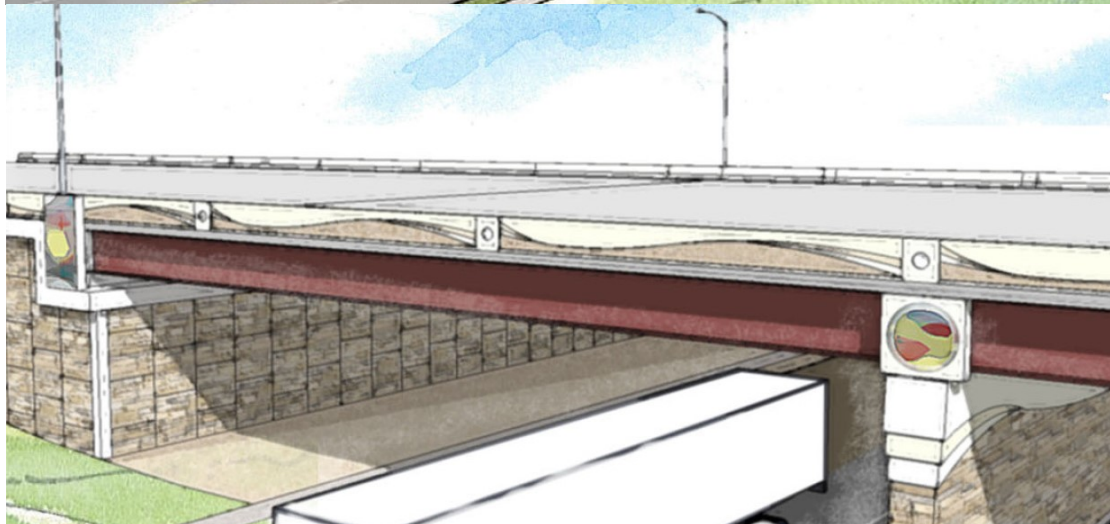
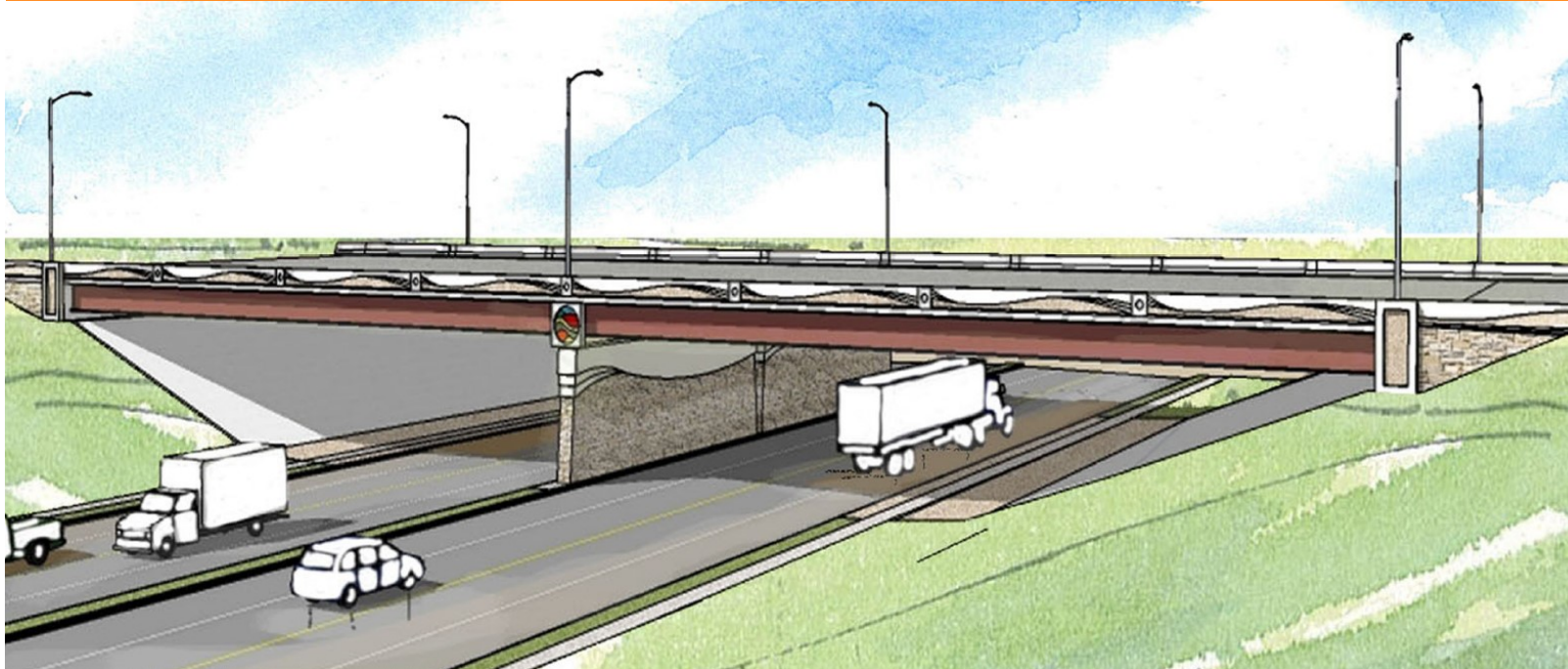
Pottawattamie County Design Nos. 612, 316, 1520 (examples only)

- Project Nos. IM-029-3(80)52-13-78, IM-NHS-080-1(377)4-03-78, IM-029-3(193)54-03-78 (examples only, not all-inclusive)
- FHWA Nos. 700050, 700395, 700985 (examples only, not all-inclusive)
- Note: affected bridges include all bridges within the West Systems Interchange, East Systems Interchange, and I-480/I-29 (Segment 4) Interchange
- Folder:
W:\Highway\Bridge\MethodsSection\Aesthetics\Council Bluffs Interstate System
- Features:
 - Special pier and abutment shaping
 - Concrete texture and rustication (incl. barriers)
 - Concrete coating in follow-up painting projects (mineral silicate paint)
- Costs :
 - 2019 concrete coating \$65/SY
 - 2022 concrete coating \$95/SY
 - 2024 concrete coating \$113/SY

Bridges: CBIS System Interchange Bridges, Council Bluffs, IA



Bridges: CBIS ML Bridges over Local Roads, Council Bluffs, IA



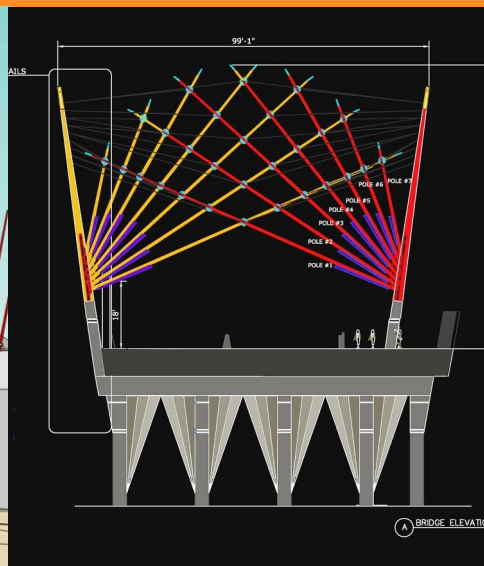
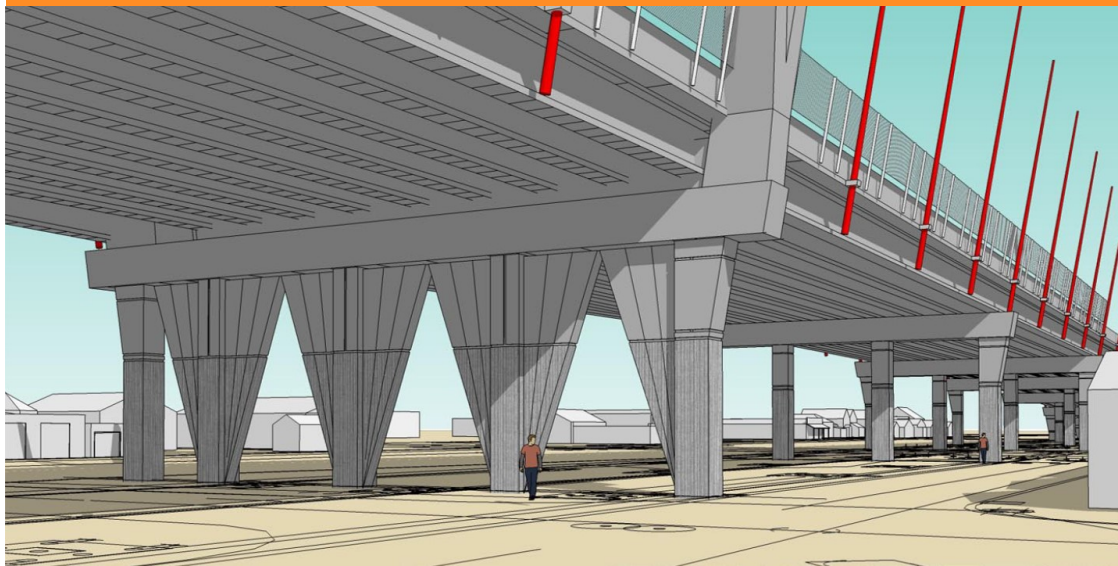
Pottawattamie County Design Nos.
916, 2320/2420, 1022/1222
(examples only)

- Project Nos. IM-NHS-080-1(371)3-03-78, IM-029-3(68)53-13-78, IM-029-3(142)53-13-78, IM-NHS-080-1(448)5-03-78 (not all-inclusive)
- FHWA Nos. 700660, 44721/44731, 44811/44821, 045191/045201 (examples only, not all-inclusive)
- Note: Also see UPRR bridge over I-29 (FHWA No. 44736) and US 275/IA 92 over I-29 (FHWA Nos. 700190 and 700195)
- Folder:
W:\Highway\Bridge\MethodsSection\Aesthetics\
Council Bluffs Interstate System
- Features:
 - Special pier and abutment shaping
 - Concrete texture and rustication (incl. barriers)
 - Concrete coating in follow-up painting projects (mineral silicate paint)
- Costs :
 - 2022 concrete coating \$95/SY
 - 2023 concrete coating \$78/SY (\$121/SY avg bid)

Bridges: CBIS ML Bridges over Local Roads, Council Bluffs, IA

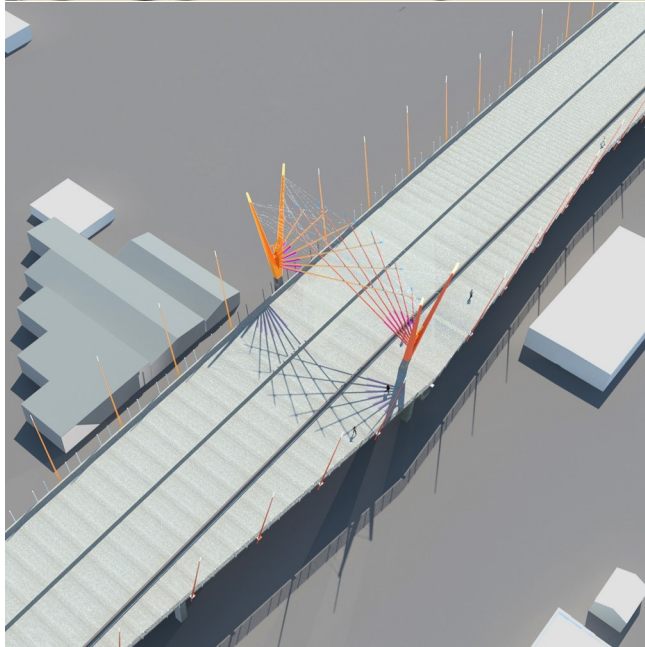


Bridges: US 6 Broadway Viaduct, Council Bluffs, IA



Pottawattamie County Design No. 210

- Project No. BRF-006-1(13)—38-78
- FHWA No. 043131
- Folder:
W:\Highway\Bridge\MethodsSection\Aesthetics\
Council Bluffs Interstate System
- Features:
 - Special pier shaping
 - Custom fence with steel grate infill panels
 - Concrete texture and rustication
 - Abrasive blast finished concrete (one pier)
 - Pedestrian plaza with bench seating
 - Custom light pole supports
 - Ed Carpenter artwork (by City and partners)
 - Special lighting (by City) and partners)
- Costs (2010):
 - Custom steel grate fence \$140/LF (\$145/LF avg bid)

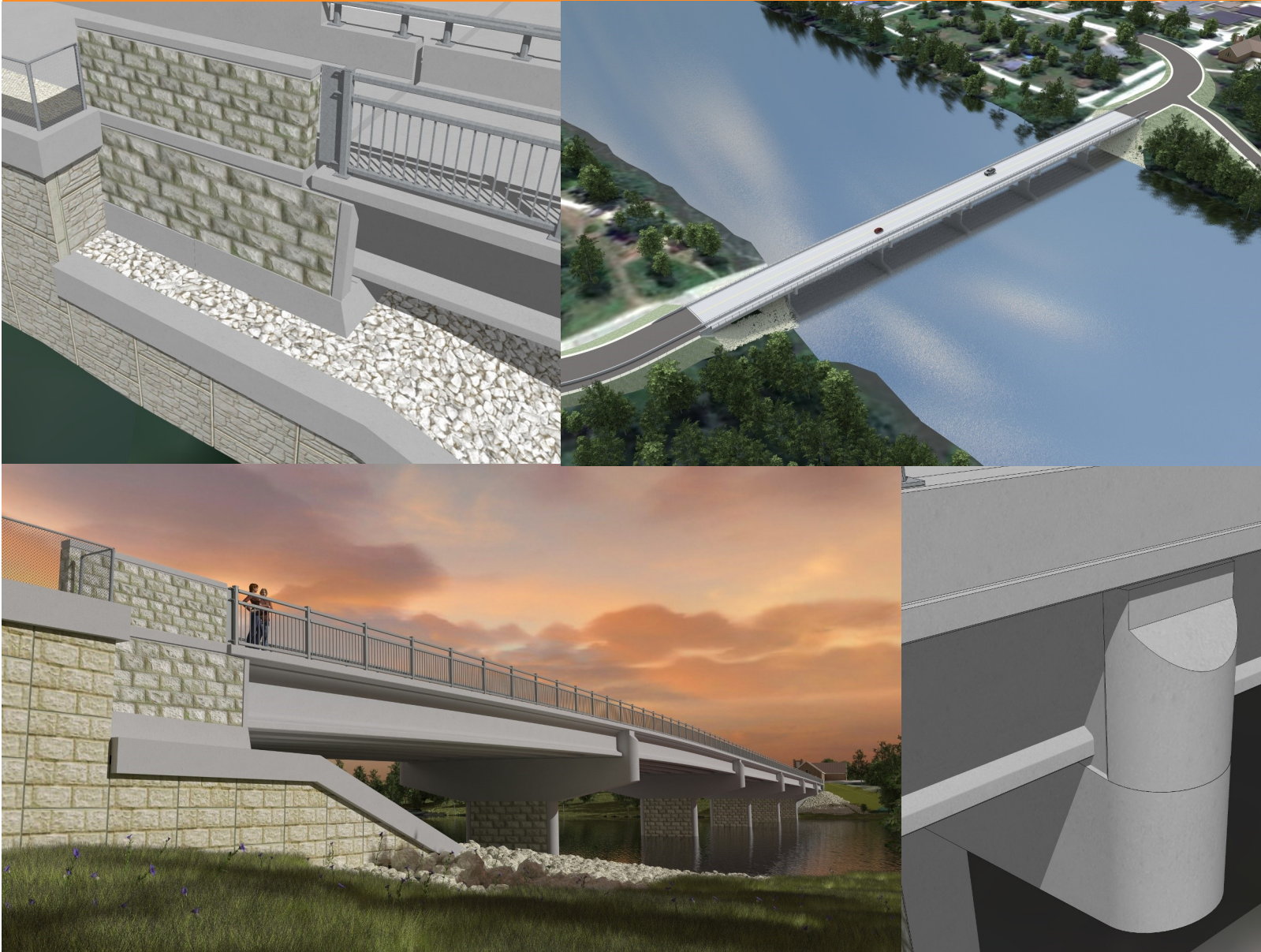


Bridges: US 6 Broadway Viaduct, Council Bluffs, IA



Bridges: IA 98 over Des Moines River, Douds, IA

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Van Buren County Design No. 114

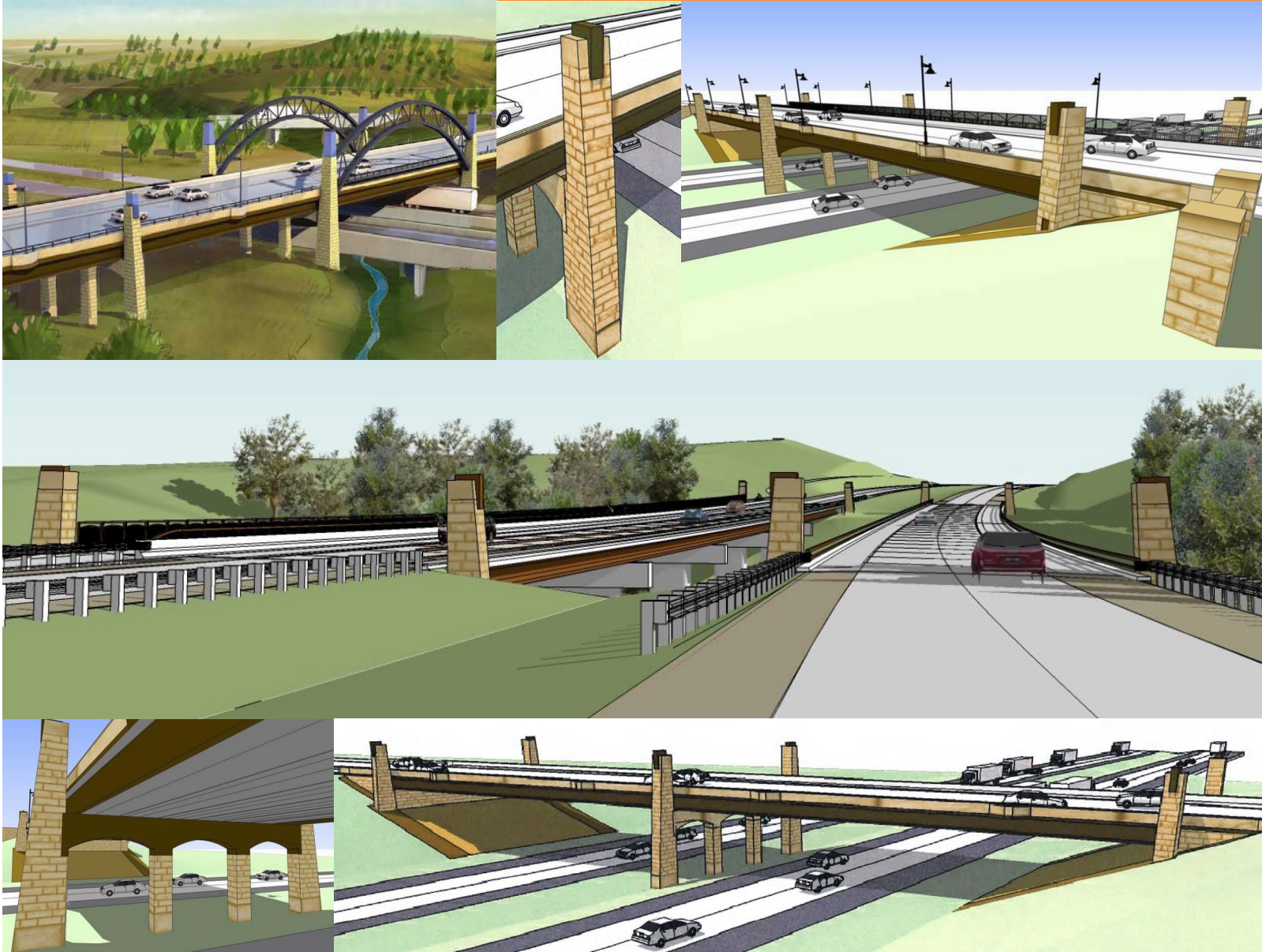
- Project No. BRFN-098-1(7)-39-89
- FHWA No. 50381
- Folder:
W:\Highway\Bridge\MethodsSection\Aesthetics\
Douds & Leando IA 98 DM River
- 3D model (.skp) available
- Features:
 - Special pier shaping incl. diaphragm mask wall
 - Special abutment shaping
 - Custom welded picket pedestrian railing
 - Concrete texture and rustication
 - Special steel-on-concrete barriers
 - Concrete coating (colored sealer)
- Costs (2013):
 - Custom pedestrian railing \$60/LF (\$92/LF avg bid)
 - Colored sealer coating \$25/SY (\$64/SY avg bid)
 - Steel-on-concrete barrier (bridge) \$82/LF (\$118/LF avg bid)
 - Steel-on-concrete barrier (approach) \$154/LF (\$188/LF avg bid)

Bridges: IA 98 over Des Moines River, Douds, IA

KMO



Bridges: US 52 Southwest Arterial, Dubuque, IA



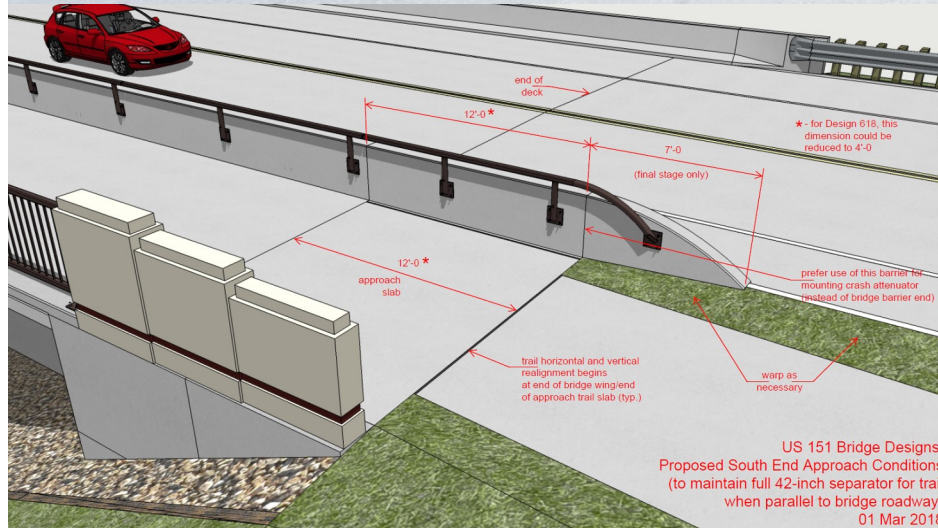
Dubuque County Design Nos. 415, 617, 1017 (examples only, not all-inclusive)

- Project Nos. HDP-2100(657)–71-31, NHSX-032-1(42)–3H-31, NHSX-032-1(39)–3H-31, (examples only, not all-inclusive)
- FHWA Nos. 700785, 700835, 700905 (examples only, not all-inclusive)
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\ Dubuque (various)
- Features:
 - Special pier and abutment shaping incl. towers
 - Custom welded picket pedestrian railings
 - Concrete texture and rustication (incl. barriers)
 - Special steel-on-concrete barriers (one location)
 - Concrete coating (mineral silicate paint)
 - Decorative cast stone finials
 - Special lighting (by City, multiple locations)
- Costs (2018):
 - Concrete coatings \$62.50/SY (\$65/SY avg bid)
 - Custom railings \$155/LF (\$206/LF avg bid)

Bridges: US 52 Southwest Arterial, Dubuque, IA



Bridges: US 151 Mainline Bridges, Fairfax, IA

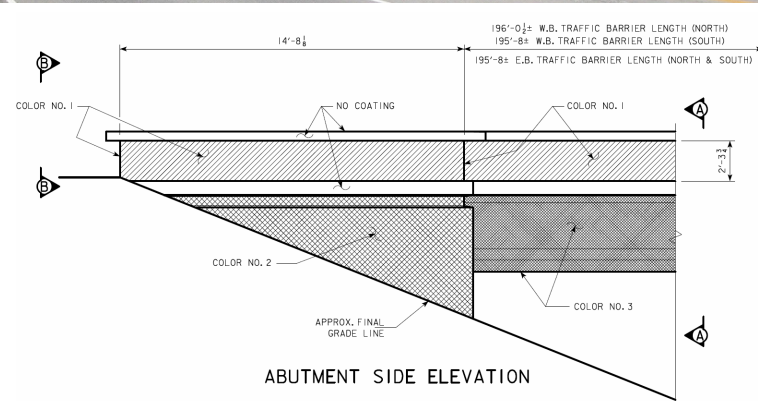
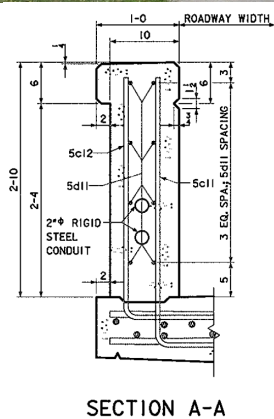
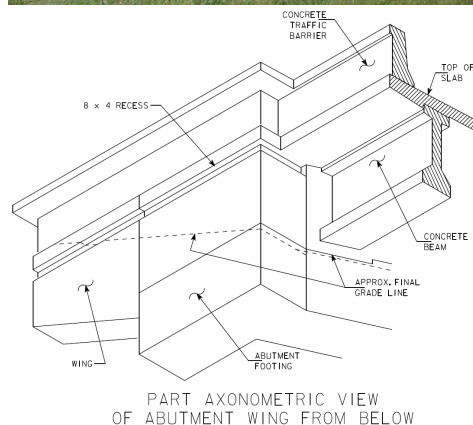
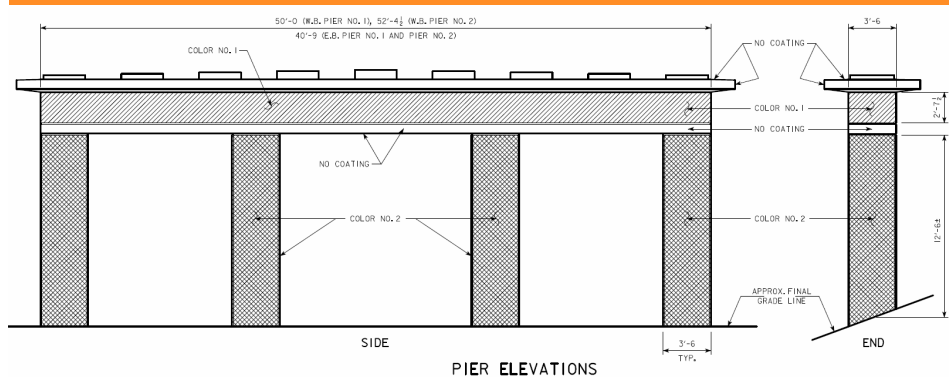


Linn County Design Nos. 418, 518, and 618

- Project Nos. BRF-151-3(141)–38-57, BRF-151-3(142)–38-57, BRF-151-3(152)–38-57
- FHWA Nos. 33771, 33781, 33791
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Fairfax US 151
- 3D model (.skp) available
- Features:
 - Special abutment shaping (fence end posts)
 - Custom aluminum picket pedestrian fence
 - Aluminum bicycle railing at separation barrier
 - Concrete rustication
 - Concrete coating (mineral silicate paint)
 - Special lighting (planned by City)
- Costs (2019):
 - Concrete coating \$259/SY (\$304.50/SY avg bid)
 - Aluminum fence \$334/LF (\$369/LF avg bid)
 - Aluminum bike rail \$106/LF (\$124/LF avg bid)

Bridges: US 151 Mainline Bridges, Fairfax, IA





Jefferson County Design Nos. 303, 903, 1703, 1903 (examples only)

- Project Nos. NHS-034-8(107)–3H-51, NHS-034-8(101)–3H-51, NHS-034-8(103)–3H-51, NHS-034-8(111)–3H-51, (examples only, non-inclusive)
- FHWA Nos. 609790, 609795, 364895, 609870, 609875, 609785, 609805, 609900
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\ Fairfield Bypass US 34
- Features:
 - Special shaping at piers and abutments
 - Concrete rustication
 - Special traffic barrier
 - Concrete coating (colored sealer)
 - Custom chain link fence design at trail bridge incl. 1.25x1.25 mesh and acrylic fence post caps
 - Concrete pavers at trail bridge ends (by County)
- Costs (2006)
 - Custom chain link fence \$86/LF (\$106/LF avg bid)
- Costs (2007):
 - Colored sealer (separate project) \$6/SY (\$13/SY avg bid)

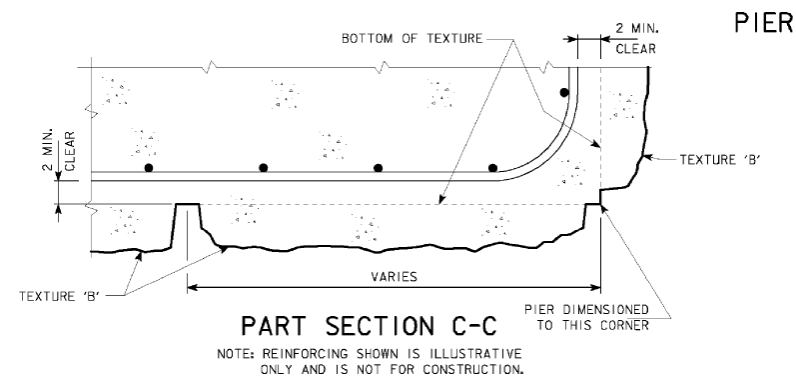
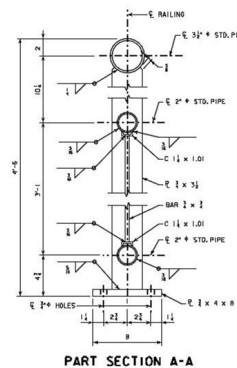
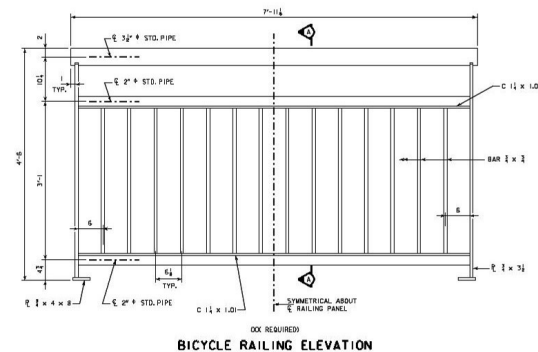
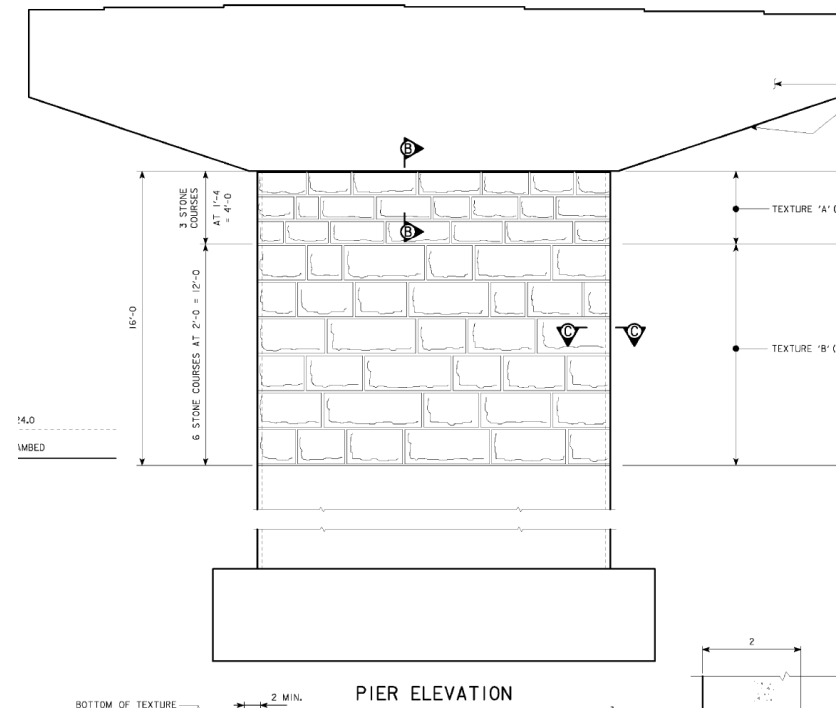
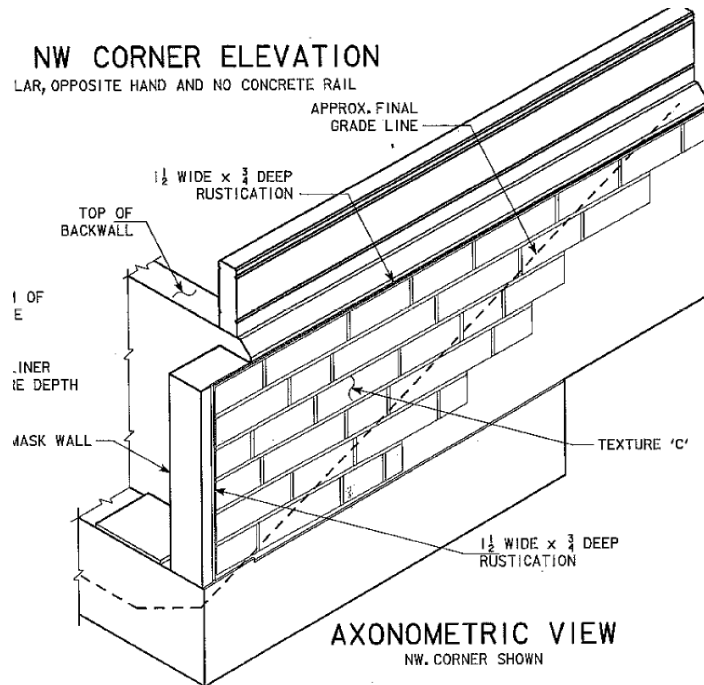
Bridges: US 34 Fairfield Bypass Bridges, Fairfield, IA

KMO



Bridges: IA 2 over Des Moines River, Farmington, IA

K/M/O



Van Buren County Design No. 106

- Project No. BRF-002-9(23)—38-89
- FHWA No. 50271
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Farmington IA 2
- Features:
 - Special shaping at piers and abutments
 - Concrete texture and rustication
 - Special traffic barrier (includes rustication)
 - Custom welded picket pedestrian railing
- Costs (2007)
 - Custom picket railing \$110/LF (\$126/LF avg bid)

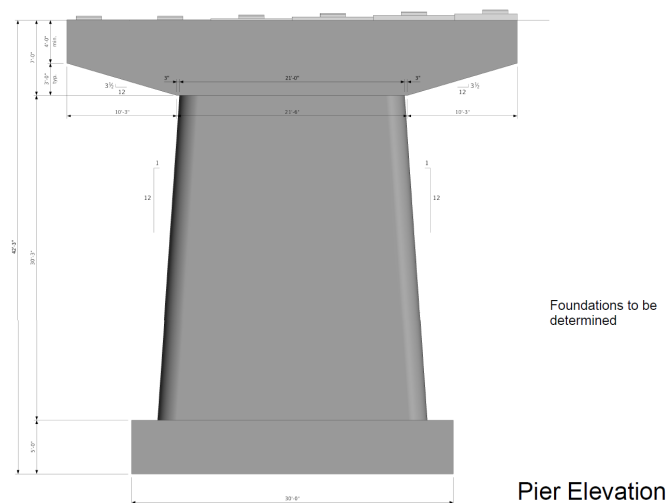
Bridges: IA 2 over Des Moines River, Farmington, IA

KMO



Bridges: IA 926 over Des Moines River and RR, Fort Dodge, IA

KMO



Webster County Design Nos. 124 and 224

- Project Nos. BRF-926-0(17)–38-94, BRF-926-0(19)–38-94
- FHWA Nos. 52082, 52102
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Fort Dodge Bus 20 (various)
- 3D model (.skp) available (railings only)
- Features:
 - Special shaping at piers (river bridge only)
 - Custom welded picket pedestrian railing
- Costs (2023)
 - Custom picket railing \$275/LF (\$252/LF avg bid)
 - Custom tall railing (over railroad only) \$500/LF (\$533/LF avg bid)



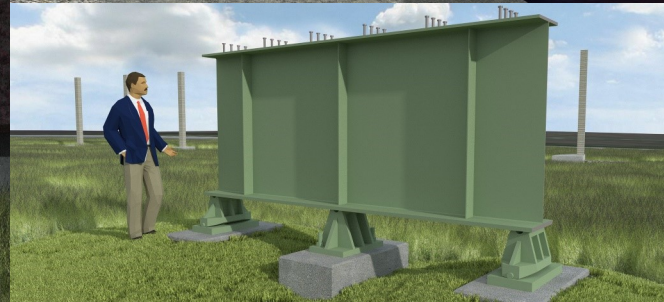
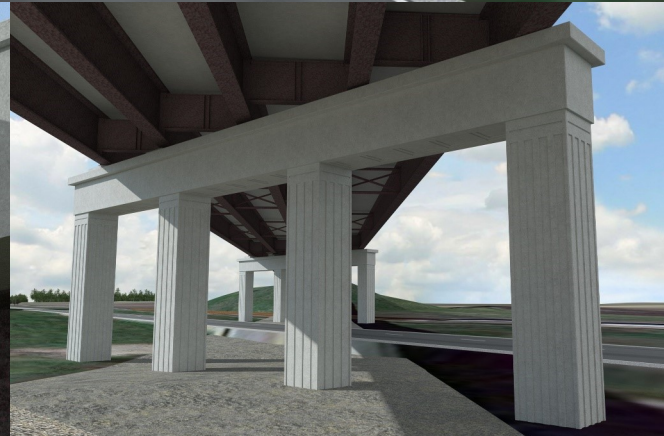
Bridges: IA 926 over Des Moines River and RR, Fort Dodge, IA

KMO

(need photos of completed project)

Bridges: US 30 over 222nd St and UPRR, Grand Junction, IA

KMO



Greene County Design No. 117

- Project No. BRF-030-3(43)—38-37
- FHWA No. 25641
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Grand Junction US 30
- 3D model (.skp) available
- Features:
 - Special shaping at piers and abutments
 - Concrete rustication (incl. barrier end sections)
 - Abrasive blast concrete finish (piers, abutments)
 - Abutment monuments
 - Decorative steel medallions
 - Decorative cast stone panels
 - Salvaged girder artifact display for nearby park
- Costs (2016)
 - Abrasive blast finish \$25/SY (\$25/SY avg bid)
 - Steel medallions (4) \$1,000 (\$6,083 avg bid)
 - Cast stone panels (4) \$20,000 (\$12,500 avg bid)
 - Salvaged girder display \$35,000 (\$34,167 avg bid)

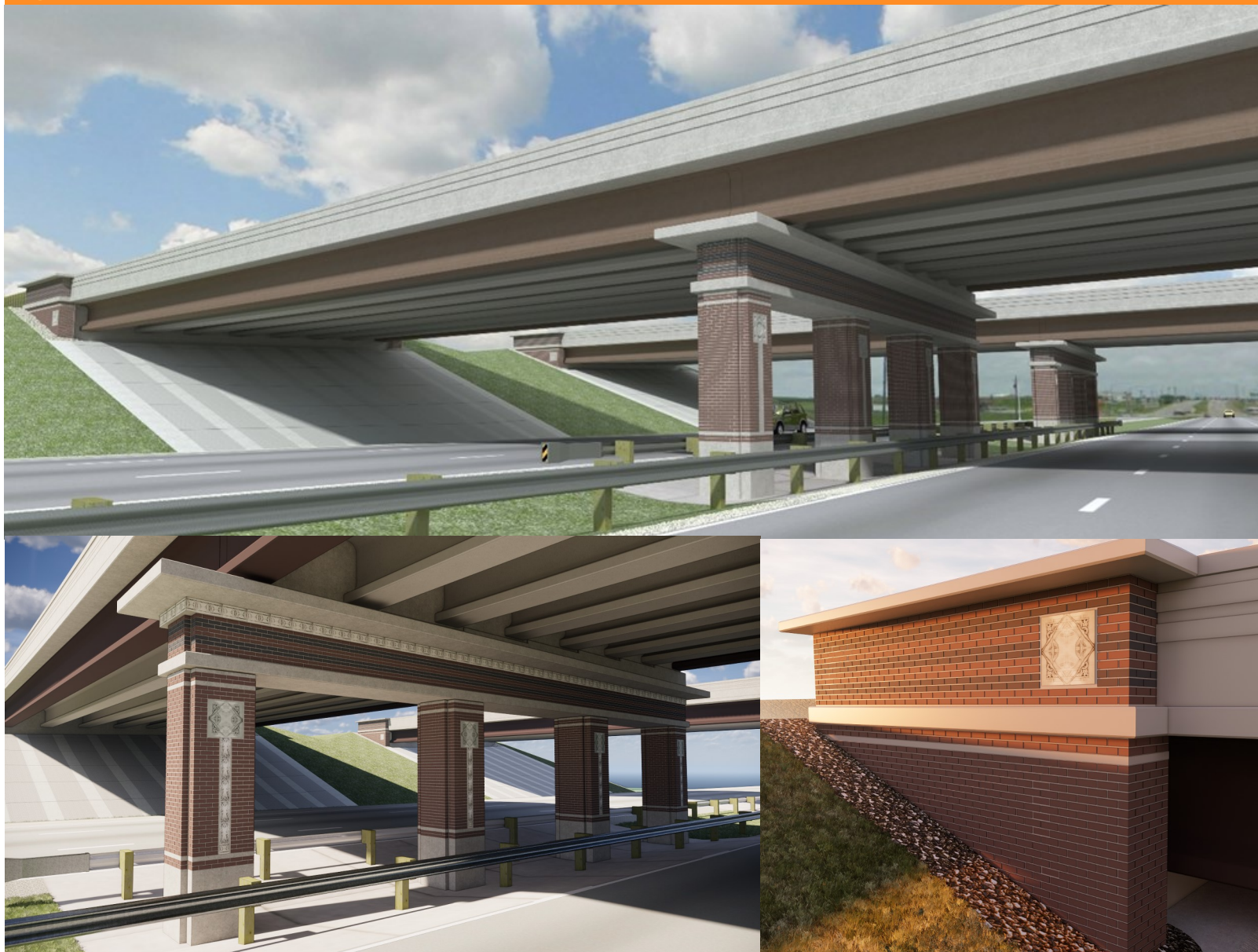
Bridges: US 30 over 222nd St and UPRR, Grand Junction, IA

KMO



Bridges: I-80 & IA 146 Interchange, Grinnell, IA

KMO



Poweshiek County Design Nos. 520 and 122

- Project Nos. IM-NHS-080-5(355)183-03-79, IM-NHS-080-5(362)183-03-79
- FHWA Nos. 46051, 46061
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Grinnell I-80 Interchange
- 3D model (.skp) available
- Features:
 - Special shaping at piers and abutments
 - Special traffic barrier
 - Integral thin veneer brick
 - Concrete rustication (incl. barriers)
 - Concrete coating (mineral silicate paint)
 - Integrated Terra Cotta tilework (by City)
 - Broom-textured concrete slope protection
- Costs
 - Integral thin brick (2020) \$42.60/SF (\$44/SF avg)
 - Integral thin brick (2022) \$50/SF (\$56/SF avg)
 - Concrete coating (2020) \$66/SY (\$68/SY avg)
 - Concrete coating (2022) \$66.25/SY (\$66.25/SY avg)

Bridges: I-80 & IA 146 Interchange, Grinnell, IA

KMO



Bridges: US 65 over Squaw Creek, Hampton, IA



Franklin County Design No. 120

- Project No. BRFN-065-7(39)-39-35
- FHWA No. 25111
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\Hampton US 65
- 3D model (.skp) available
- Features:
 - Special traffic barrier (TxDOT T411)
 - Custom welded picket pedestrian railing
- Costs (2019)
 - Aesthetic barrier \$175/LF (one bidder)
 - Custom picket railing \$410/LF (one bidder)

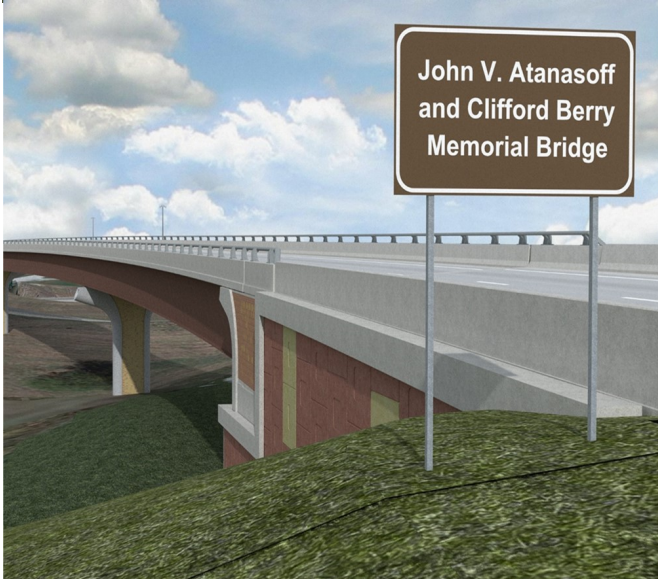
Bridges: US 65 over Squaw Creek, Hampton, IA

KMO



Bridges: I-35 NB Ramp to US 30 WB, Ames, IA

KMO



Story County Design No. 616

- Project No. IM-035-4(183)112-13-85
- FHWA No. 700825
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-35 & US 30 Interchange
- 3D model (.skp) available
- Features:
 - Special pier and abutment shaping
 - Integral thin veneer brick with patterns conveying encoded messages via standard IBM 80-column computer punchcard code
 - Special steel-on-concrete barriers (modified TxDOT T80HT, also known as PA HT)
 - Custom welded picket pedestrian railing
 - Pier cap end recess formed by CNC-milled urethane foam
 - Rubbed concrete finish (plain surfaces)
 - Bridge name sign (by ISU, Story County)
- Costs (2016)
 - Integral thin brick \$20/SF (\$38.50/SF avg bid)
 - Aesthetic barrier \$150/LF (\$152/LF avg bid)

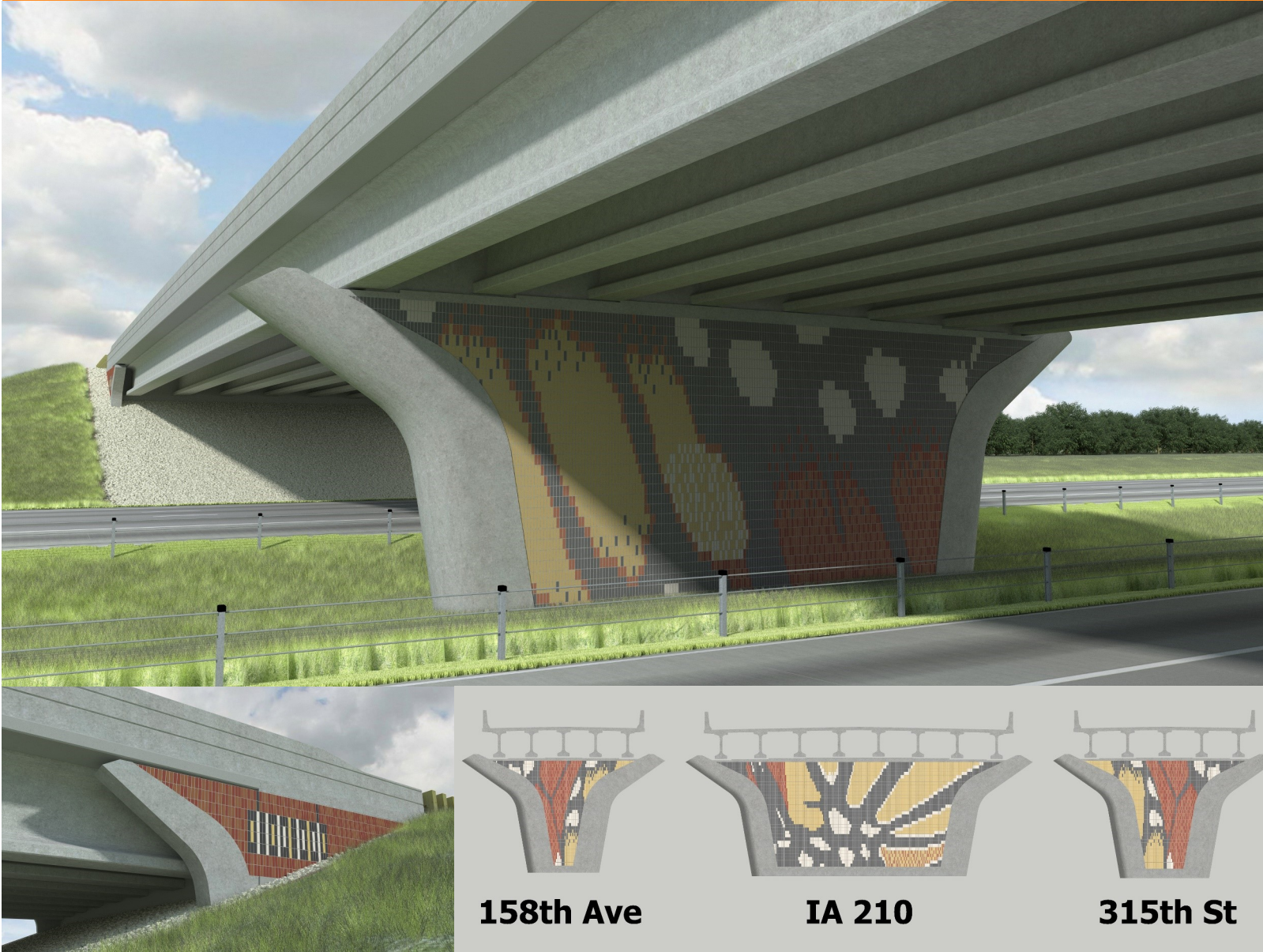
Bridges: I-35 NB Ramp to US 30 WB, Ames, IA

KMO



Bridges: I-35 Overhead Bridges, Ankeny to Ames, IA

KMO



Polk County Design Nos. 323, 423, 724, Story County Design Nos. 223, 323

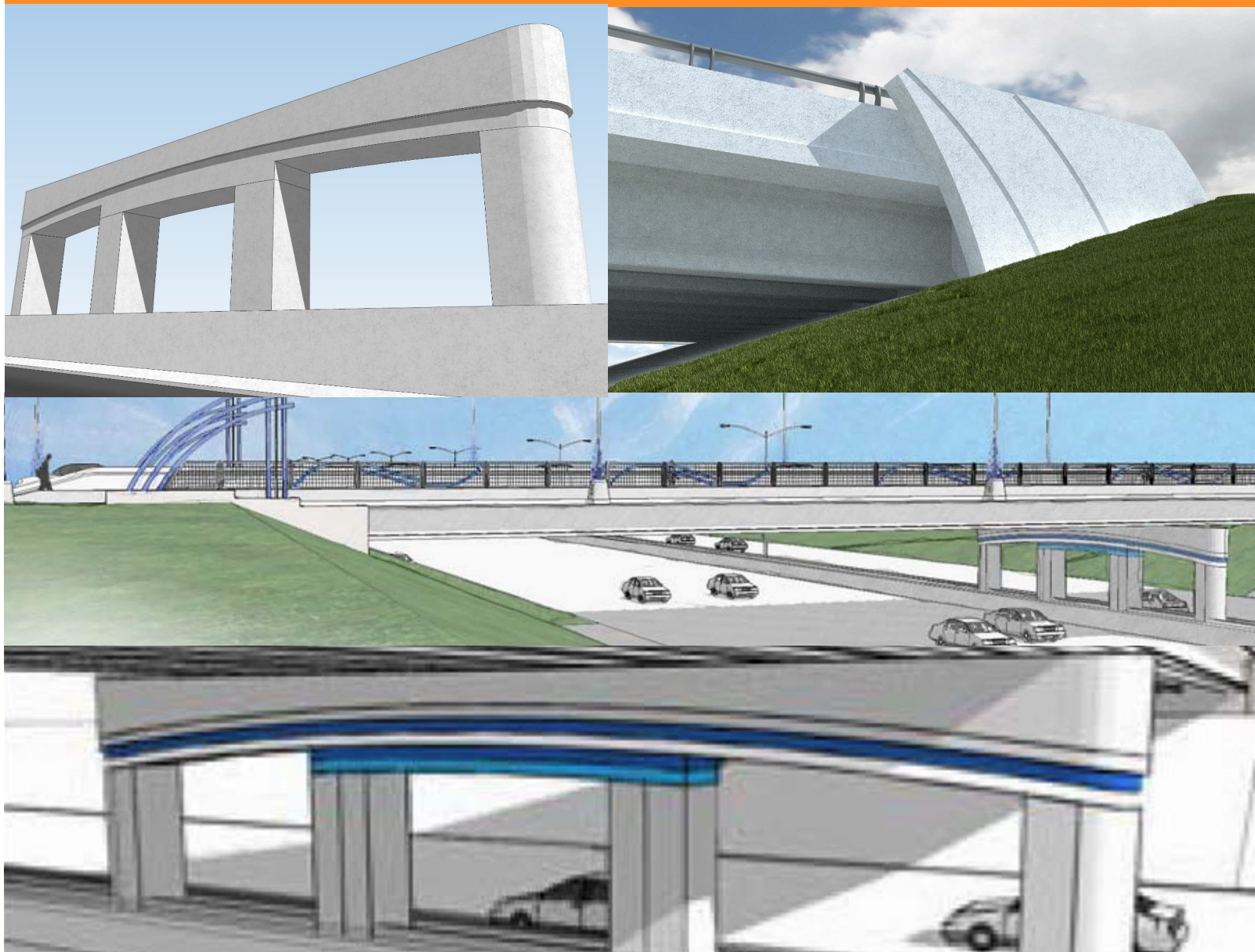
- Project Nos. IM-035-4(246)99–13-77, IM-035-4(245)97–13-77, IM-035-4(305)101–13-77, IM-035-4(284)103–13-85, IM-035-4(269)104–13-85
- FHWA Nos. 041871, 040791, 041891, 049011, 049141
- Note: 2 more bridges of this design to be built at 290th ST and at Lincoln Way over I-35 (~2026/29)
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-35 Ankeny to Ames
- 3D model (.skp) available
- Features:
 - Special pier and abutment shaping
 - Integral thin veneer brick with patterns inspired by the Monarch butterfly's wing
 - Concrete rustication (including barriers)
 - Rubbed concrete finish (plain surfaces)
- Costs
 - Integral thin brick (2023) \$54/SF (\$53/SF avg bid)
 - Integral thin brick (2024) \$68/SF (\$71/SF avg bid)

Bridges: I-35 Overhead Bridges, Ankeny to Ames, IA

KMO



Bridges: I-74 Overhead Bridges, Davenport, IA



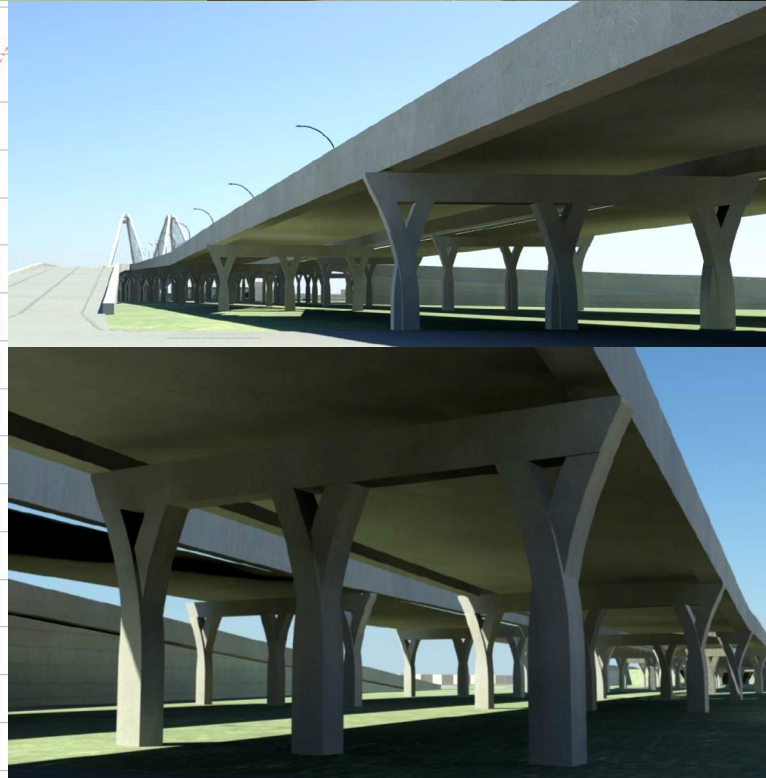
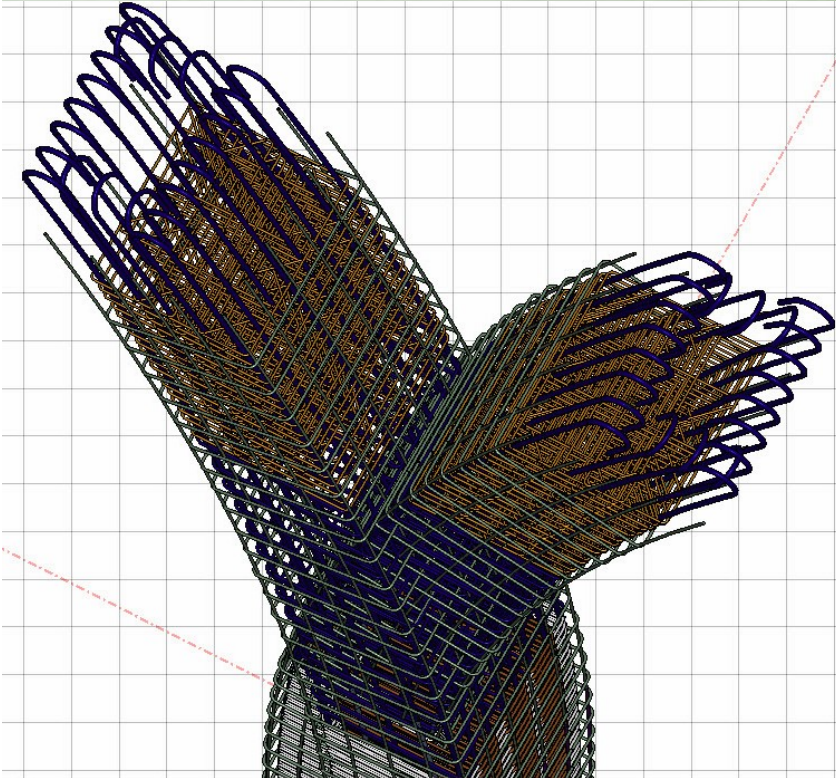
Scott County Design Nos. 308, 1108, and 312

- Project Nos. IM-074-1(158)4-13-82, IM-074-1(168)1-13-82, BRFIMX-074-1(150)0-14-82
- FHWA Nos. 47301, 47371, 47381
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-74 Quad Cities
- 3D model (.skp) available
- Features:
 - Special pier and abutment shaping
 - Custom aluminum perforated plate fence with sandblasted wave pattern
 - Special steel-on-concrete barrier (TxDOT T80HT modified, also known as PA HT)
- Costs (2013):
 - Aluminum fence \$491/LF (\$503/LF avg bid); fences for all 3 designs included in Design 312 project letting (E. 67th St/Veterans Memorial Pkwy over I-74)
 - Steel-on-concrete barrier \$203.50/LF (\$179/LF avg bid); Design 1108 E. 53rd St over I-74 only

Bridges: I-74 Overhead Bridges, Davenport, IA



Bridges: I-74 Mainline Viaduct Bridges, Bettendorf, IA



Scott County Design Nos. 917, 1017, 1117, 1217, 1317 (examples only)

- Project Nos. IM-NHS-074-1(197)5-03-82, IM-NHS-074-1(198)5-03-82
- FHWA Nos. 47281, 47291
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-74 Quad Cities
- 3D model (.skp) available
- Features:
 - Special pier and abutment shaping
 - Custom perforated aluminum pedestrian railing
 - Special steel-on-concrete barrier (TxDOT T80HT modified, also known as PA HT)
 - Painted weathering steel fascia girders
 - Extensive anti-graffiti coating (piers)
 - Special lighting (by City)
- Costs (2017):
 - Steel-on-concrete barrier \$190/LF (\$214/LF avg)
 - Custom aluminum railing \$225/LF (\$251/LF avg)
 - Anti-graffiti coating \$50/SY (\$28/SY avg bid)

Bridges: I-74 Mainline Viaduct Bridges, Bettendorf, IA

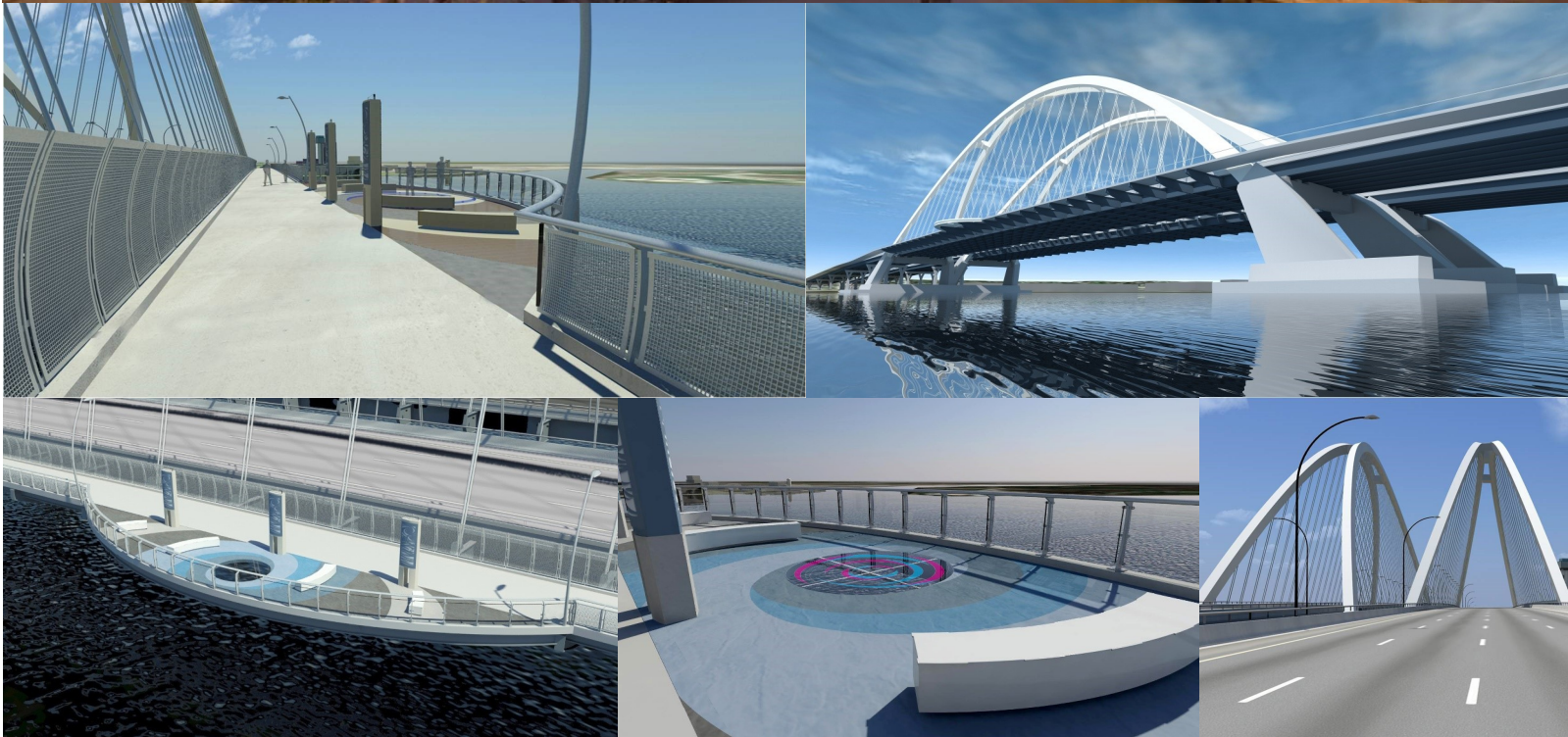


Bridges: I-74 over Mississippi River (Main Spans), Bettendorf, IA



Scott County Design Nos. 617, 717, 817

- Project No. IM-NHS-074-1(198)5-03-82
- FHWA Nos. 47281, 47291
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-74 Quad Cities
- 3D model (.skp) available
- Features:
 - Basket handle true arch superstructure
 - Special steel-on-concrete barrier (TxDOT T80HT modified, also known as PA HT)
 - Custom perforated aluminum railings (2 heights)
 - Custom acrylic (Acrylite) railing (overlook)
 - Integrally colored concrete pavement (overlook)
 - Structural glass oculus (overlook)
- Costs (2017):
 - Steel-on-concrete barrier \$215/LF (\$270/LF avg)
 - Aluminum railing (tall) \$450/LF (\$365/LF avg bid)
 - Acrylic railing \$450/LF (\$429/LF avg bid)
 - Colored concrete paving \$900/SY (\$438/SY avg)
 - Glass oculus \$80,000 (\$213,000 avg bid)

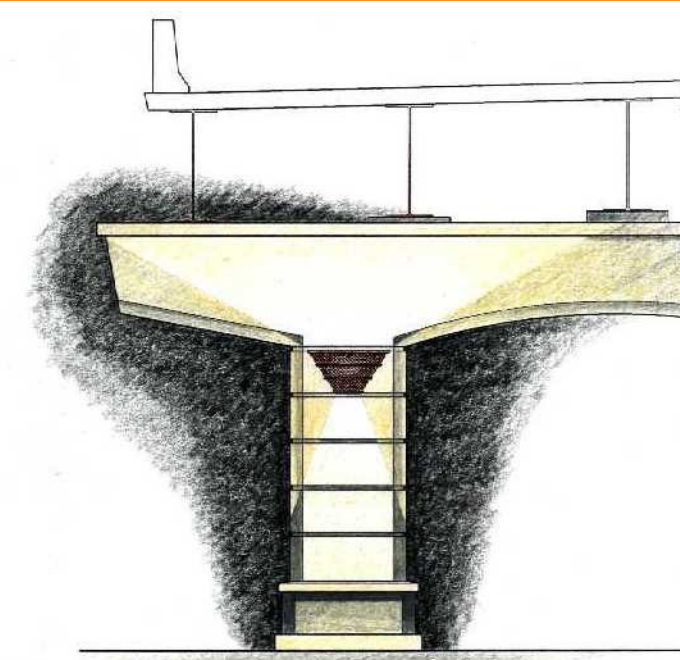


Bridges: I-74 over Mississippi River (Main Spans), Bettendorf, IA

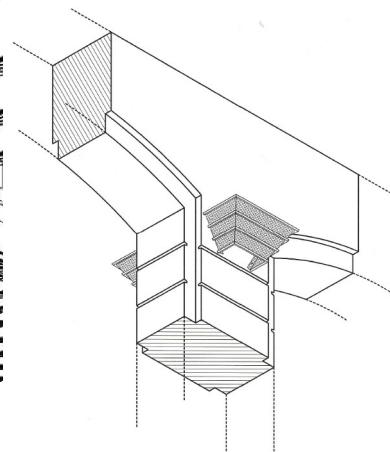
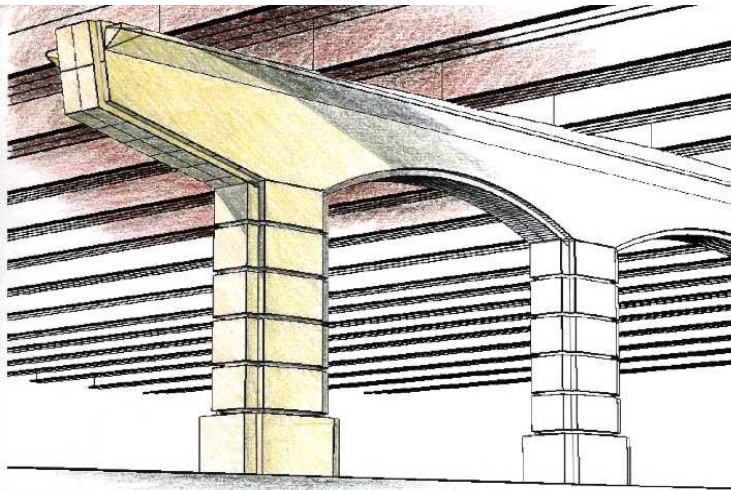
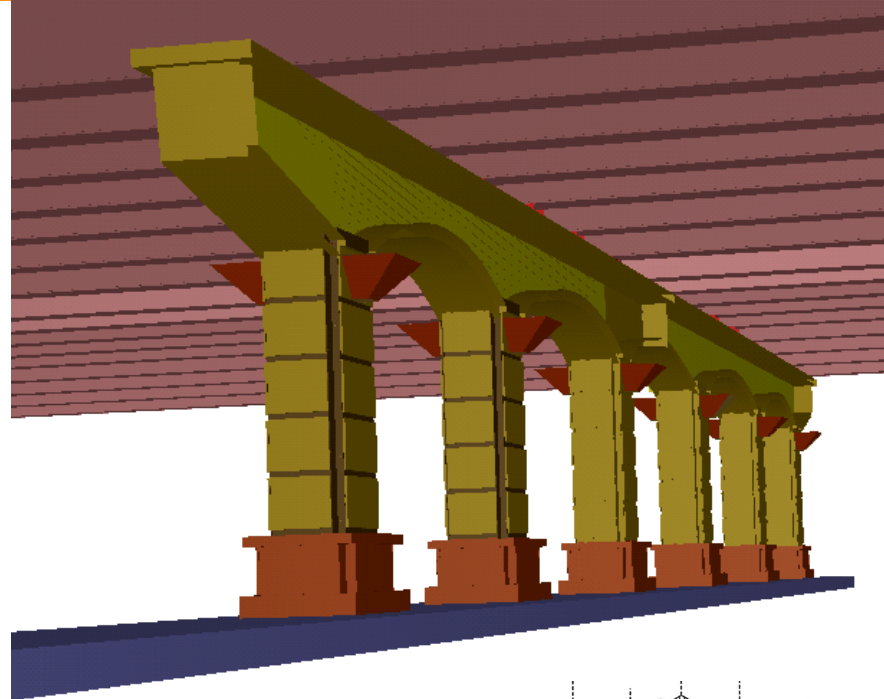


Bridges: I-80/I-35 Bridges over Local Roads, Des Moines, IA

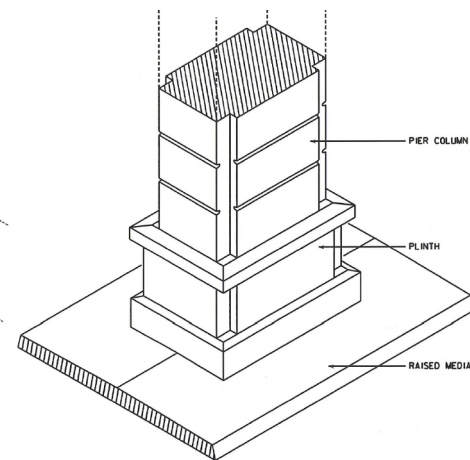
KMO



PIER FACE ELEVATION
- NIGHT VIEW



AXONOMETRIC VIEW OF
PIER LIGHTING SHROUD



AXONOMETRIC VIEW OF
PIER COLUMN PLINTH

Polk County Design Nos. 196, 2798, 3299, 4099

- Project Nos. IM-035-3(80)81-13-77, IM-035-3(105)81-13-77 (examples; not all-inclusive)
- FHWA Nos. 41441/41451, 41591/41601, 41631/41641
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-80 bridges + (various)
- 3D model (.dgn) available
- Note: bridges of similar design built at Grand Prairie Pkwy (FHWA No. 70060) and Ashworth Road over I-80 (FHWA Nos. 22401/701100), Dallas Co.
- Features:
 - Special pier shaping
 - Secondary pier column "plinth" concrete pours
 - Custom perforated metal pier light shrouds
 - Integral concrete color (Des. 196/2798), colored sealer coating (Des. 3299, 4099)
- Costs (1998):
 - Pier lighting shrouds \$600/ea. (\$650/ea. avg bid)
 - Colored structural concrete \$688/CY (\$519/CY avg bid)

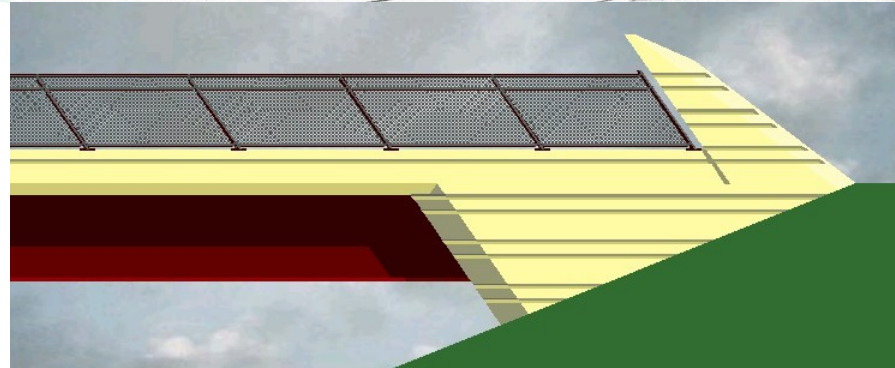
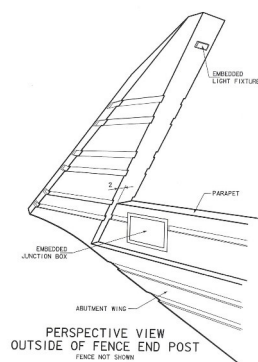
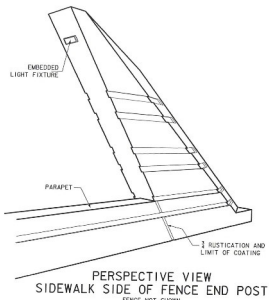
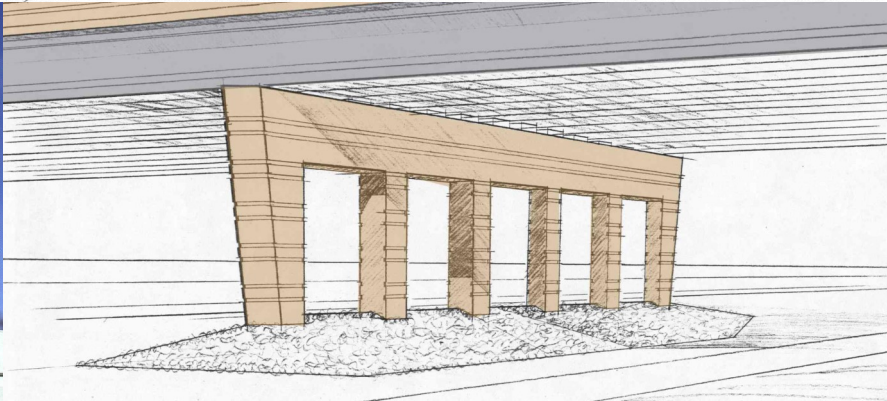
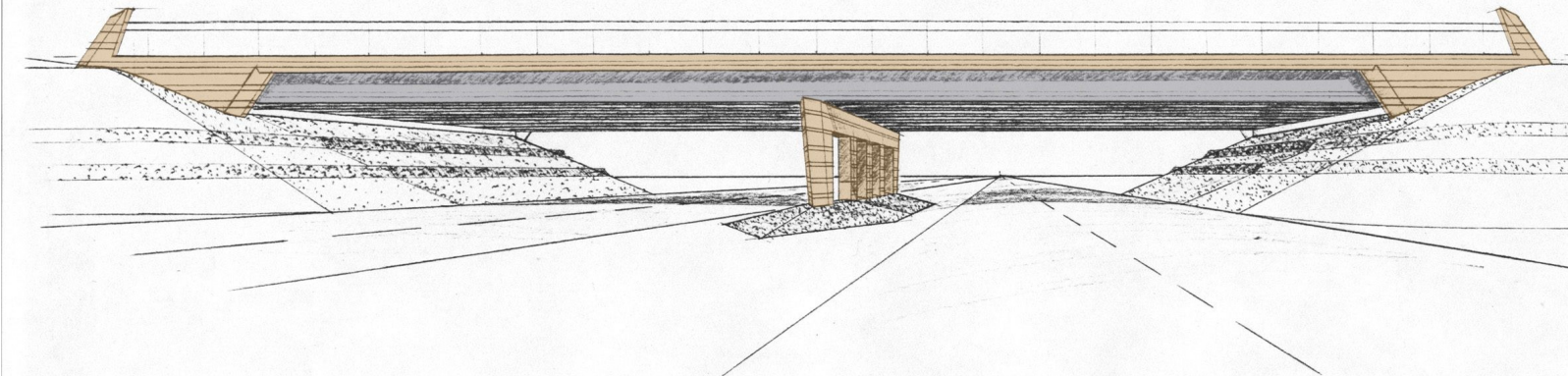
Bridges: I-80/I-35 Bridges over Local Roads, Des Moines, IA

KMO



Bridges: I-80/I-35 Overpass Bridges, Urbandale, IA

KMO



Polk County Design Nos. 2201, 1702, 6805, 1215

- Project Nos. IM-035-2(269)76-13-77, IM-035-2(305)76-13-77, IMN-035-2(328)77-OE-77, NHS-080-3(198)128-11-77
- FHWA Nos. 41331, 41341, 41381, 700910
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-80 bridges + (various)
- Note: bridges with similar features built at Polk Co. Des. No. 1317 (FHWA No. 41521) and Dallas Co. Design No. 100 (FHWA No. 504510)
- Features:
 - Special pier and abutment shaping
 - Custom chain link fence with 1.25" mesh
 - SCC option in plans for casting fence end posts
 - Concrete coating: colored sealer at Designs 2201, 1702, 6805; mineral silicate paint at Designs 1215, 1317
- Costs:
 - Colored sealer coating (2002) \$14/SY (\$13/SY avg)
 - Mineral silicate paint (2015) \$24/SY (\$57/SY avg)
 - Custom chain link fence (2015) \$95/LF (\$94/LF avg)

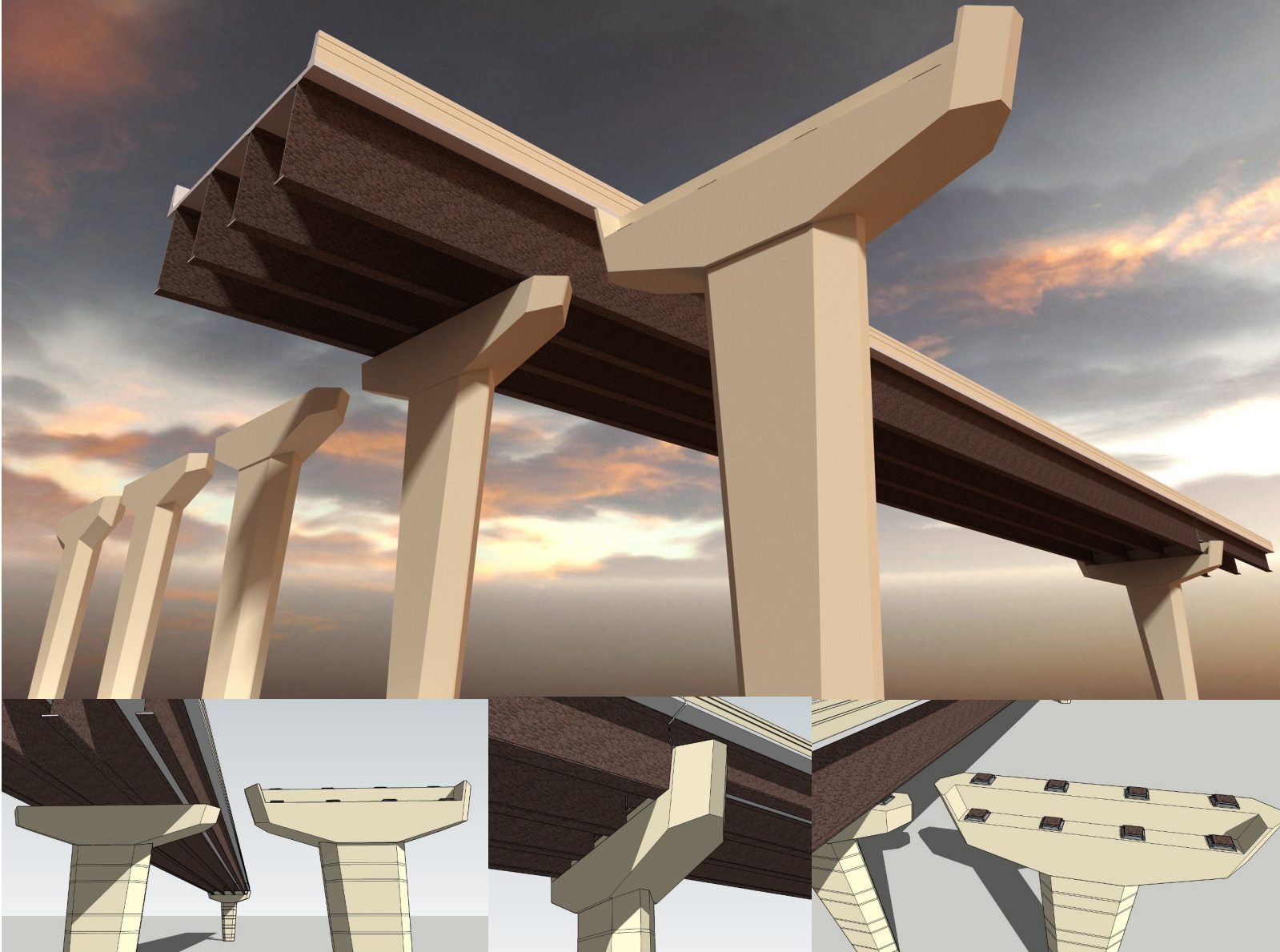
Bridges: I-80/I-35 Overpass Bridges, Urbandale, IA

KMO



Bridges: IA 141 Flyover Ramp over I-80/I-35, Urbandale, IA

KMO



Polk County Design No. 1818

- Project No. IM-080-3(183)127-13-77
- FHWA No. 700870
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-80 bridges + (various)
- 3D model (.skp) available (piers only)
- Features:
 - Special pier and abutment shaping
 - Concrete rustication (including barriers)
 - Concrete coating (mineral silicate paint)
 - Special pole support shape
- Costs (2018):
 - Rusticated traffic barrier \$50/LF (\$52/LF avg)
 - Concrete coating \$63.40/SY (\$64/SY avg bid)

Bridges: IA 141 Flyover Ramp over I-80/I-35, Urbandale, IA

KMO



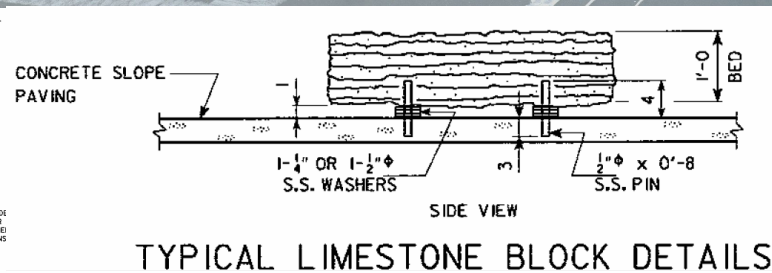
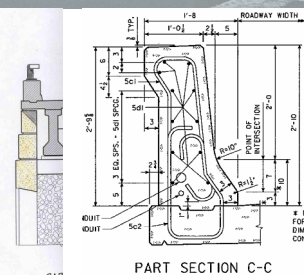
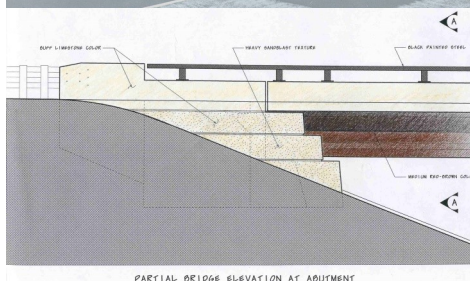
Bridges: I-80 over Hwy 965, Coralville, IA

KMO



Johnson County Design No. 102

- Project No. IM-080-6(168)241-13-52
- FHWA Nos. 32030, 32040
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-80 bridges + (various)
- Note: existing bridges widened under this project
- 3D model (.dgn) available (piers)
- Features:
 - Special pier and abutment shaping, rustication
 - Special traffic barrier
 - Concrete coating (colored sealer)
 - Heavy broom finishing and limestone blocks at slope protection
 - Special pier lighting including aluminum fixture shrouds (by City)
 - I-235 style light pole supports
- Costs (2002):
 - Colored sealer coating \$12/SY (\$17.75/SY avg bid)
 - Slope protection concrete \$45/SY (\$59/SY avg bid)
 - Limestone blocks (53) \$38,000 (\$35,625 avg bid)
 - Pier light fixtures \$1000 ea. (\$1000 ea. avg bid)



Bridges: I-80 over Hwy 965, Coralville, IA

KMO



Bridges: 1st Ave DDI Bridges over I-80, Coralville, IA



Johnson County Design Nos. 524 and 624

- Project No. IM-080-6(489)243-13-52
- FHWA No. 700141, 32081
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-80 bridges + (various)
- Features:
 - Special pier and abutment shaping and texture
 - Custom decorative steel railing mounted to back side of traffic barriers (outside of barrier ZOI)
 - Decorative monuments
 - Integrally colored concrete traffic barriers
 - Barrier rustication (wave pattern)
 - Integral thin veneer brick and modular brick
 - Concrete coating (mineral silicate paint)
- Costs (2022):
 - Decorative railing \$595/LF (\$624/LF avg bid)
 - Abutment monuments \$48,000 ea. (\$59,000 avg)
 - Intermed. monuments \$18,000 ea. (\$22,750 avg)
 - Colored concrete barriers \$185/LF (\$260/LF avg)
 - Concrete coating \$48/SY (\$48/SY avg bid)

Bridges: 1st Ave DDI Bridges over I-80, Coralville, IA



Bridges: Herbert Hoover Highway over I-80, Iowa City, IA



Johnson County Design No. 1020

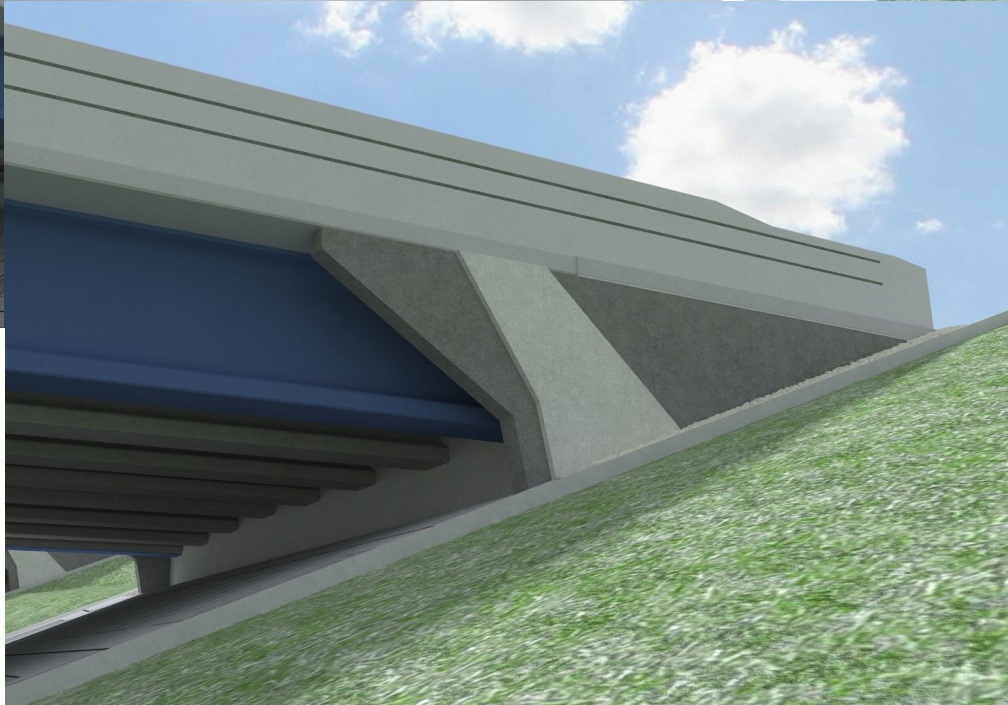
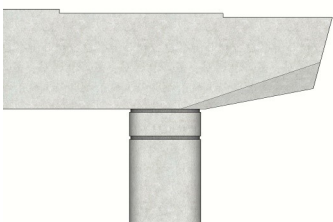
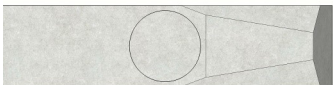
- Project No. IM-080-7(116)249-13-52
- FHWA No. 32161
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-80 bridges + (various)
- 3D model (.skp) available
- Features:
 - Special pier and abutment shaping
 - Concrete form liner texture (pier, abut., barriers)
 - Decorative steel letters at abutment monuments
 - Custom welded picket railing with white vinyl chain link mesh
 - Fence parapet
 - Bronze commemorative plaques (2)
 - Concrete coating (mineral silicate paint)
- Costs (2021):
 - Decorative letters \$11,000 (\$14,167 avg bid)
 - Custom railing w/mesh \$200/LF (\$223/LF avg bid)
 - Fence parapet \$75/LF (\$85/LF avg bid)
 - Bronze plaques (2) \$15,000 (\$13,167 avg bid)
 - Concrete coating \$90/SY (\$73/SY avg bid)

Bridges: Herbert Hoover Highway over I-80, Iowa City, IA



Bridges: I-80 over Middle Road, Bettendorf, IA

KMO



Scott County Design Nos. 325, 425

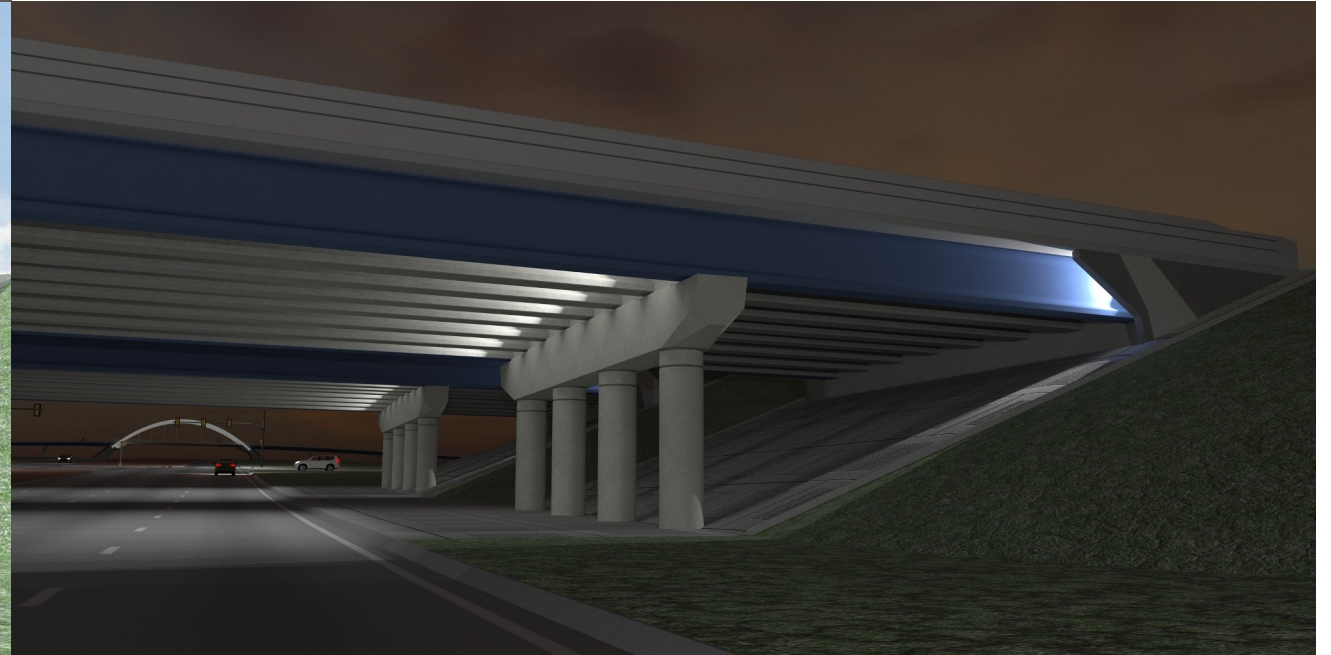
- Project No. IM-NHS-080-8(360)301-03-82
- FHWA Nos. 47621, 47631
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-80 bridges + (various)
- 3D model (.skp) available
- Features:
 - Special pier and abutment shaping
 - Special abutment mask wall support footing
 - Rustication (including traffic barriers)
 - Heavy broom finished concrete slope protection
 - Concrete coating (mineral silicate paint)
 - Special lighting (by City)
- Costs (2025): (Letting anticipated July 2025+/-)
 - Concrete coating \$XX/SY (\$XX/SY avg bid)
 - Slope protection \$XX/SY (\$XX/SY avg bid)

Bridges: I-80 over Middle Road, Bettendorf, IA

KMO

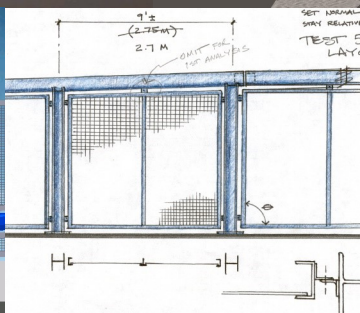
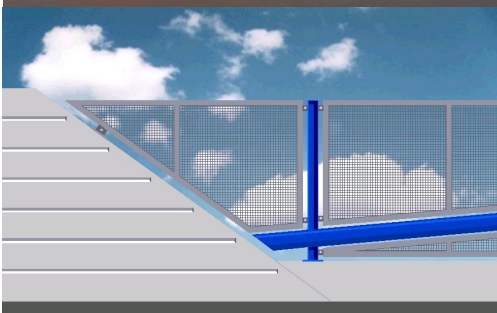


(need completed project images)



Bridges: I-235 Overpass Bridges, Des Moines, IA

KMO



Polk County Design Nos. 700, 1903, 2406 (examples only)

- Project Nos. IM-235-2(270)1--13-77, IM-235-2(307)8--13-77, IM-235-2(313)8--13-77 (examples only, not all-inclusive)
- FHWA Nos. 12511, 42491, 42571 (examples only)
- Folder: W:\Highway\Bridge\MethodsSection\Aesthetics\I-235 Corridor Des Moines
- Features:
 - Special pier and abutment shaping, rustication
 - Custom welded wire mesh pedestrian fence (by separate projects)
 - Steel-on-concrete traffic barrier with painted steel rail (some bridges)
 - Concrete coating (colored sealer; sep. projects)
 - Heavy broom finished concrete slope protection
- Costs:
 - Wire mesh fence (2002) \$130/LF (\$146/LF avg); (2005) \$172/LF (\$212/LF avg)
 - Colored sealer (2005) \$15.84/SY (\$26.61/SY avg); (2008) \$15.05/SY (\$16.18/SY avg)
 - Steel-on-concrete barrier (2000) \$133/LF (\$144/LF avg bid); (2003) \$178.46/LF (avg unknown)

Bridges: I-235 Overpass Bridges, Des Moines, IA

KMO

