



VIRGINIA SALTWATER RECREATIONAL FISHING DEVELOPMENT FUND

SUMMARY PROJECT APPLICATION

Please complete all fields. This page should be used as a coversheet for a detailed application.

NAME AND ADDRESS OF APPLICANT:

King & Queen County
 P.O. Box 177
 King & Queen Court House, VA 23085

PROJECT LEADER (name, phone, email):

Mr. Thomas Swartzwelder
 (804) 785-5975
tswartzwelder@kingandqueenco.net

DESCRIPTIVE TITLE OF EVENT:

Construction of a Recreational Fishing Pier and Non-power boat access to the Mattaponi River in lower King & Queen County.

PROJECT LOCATION:

King & Queen County, Virginia
 F-600 road terminus (old route 33) at the confluence of the York and Mattaponi River

BRIEF PROJECT SUMMARY: (include a detailed description of activity as an attachment)

King & Queen County is seeking funding to construct a recreational fishing pier, non-power boating access facility and parking lot on their waterfront property at the F-600 road terminus to enhance saltwater recreational fishing access opportunities to the Mattaponi River from the King & Queen County shoreline.

EXPECTED BENEFITS: (Describe how your project directly benefits the average Virginia recreational angler)

According to DGIF there were 372 residents in King & Queen County in 2011 that utilized saltwater fishing licenses. However, this universe of saltwater fishermen is small compared to the 26, 00 vehicles passing the project site daily with greater increase during the spring and summer months as urban area residents travel to the Middle Peninsula seeking saltwater enjoyment. As the site experiences 26,000+ vehicles passing it daily, the site is convenient, safe and easily accessible by foot, or bike. The pier will provide an overlook to the tidal marshes of King & Queen County providing scenic views for visitors and an opportunity for bird and wildlife watching enthusiasts. Finally this project will be reflective of the needs and recommendations addressed in the 2013 Virginia Outdoor Plan that will ultimately improve outdoor recreation within the Commonwealth.

SUMMARY COSTS: (Please attach a detailed budget including all sources of recipient funding)

SUMMARY COSTS

Requested VMRC Funding:	\$136,853.25
Recipient Funding:	\$45,617.75 (KQ local share or DGIF)
Total Costs:	\$182,471.00

*This form alone does not constitute a complete application, see application instructions or contact Alicia Nelson at 757-247-8155 or alicia.nelson@mrc.virginia.gov

PROJECT PROPOSAL-

Construction of a Recreational Fishing Pier and Non-power boat access to the Mattaponi River in lower King & Queen County

I. Need. State problem or deficiency that the project will improve

There is limited public water access for saltwater recreational fishing and non-power boating activities in King & Queen County. In 2008, County became the owner of a small parcel totaling 1.6842 acres, located parallel to the Mattaponi River Bridge leading to the Town of West Point. The waterfront property which includes the VDOT F-600 road terminus has been under utilized since its acquisition. Therefore King and Queen County proposes a project to enhance saltwater recreational fishing within lower King & Queen County and to alleviate some of the competing use resulting in overcrowding at the Virginia Department of Games and Inland Fisheries (DGIF) public boat ramp facility located in the Town of West Point. The project site is ideally situated on publically owned waterfront property with easy and safe foot, bike and auto access. The county desires to construct a ~65 ft public fishing pier; non-power boating access facility; and parking lot at the F-600 Road Terminus (the original location of the Lord Delaware Bridge – Rt. 33) – see figure to the right.

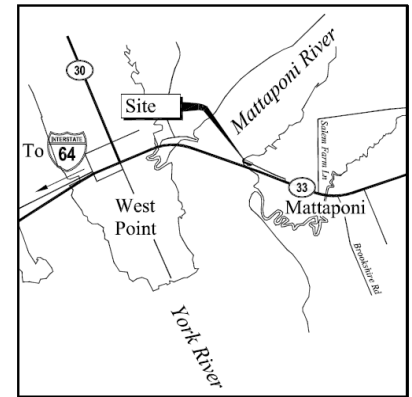
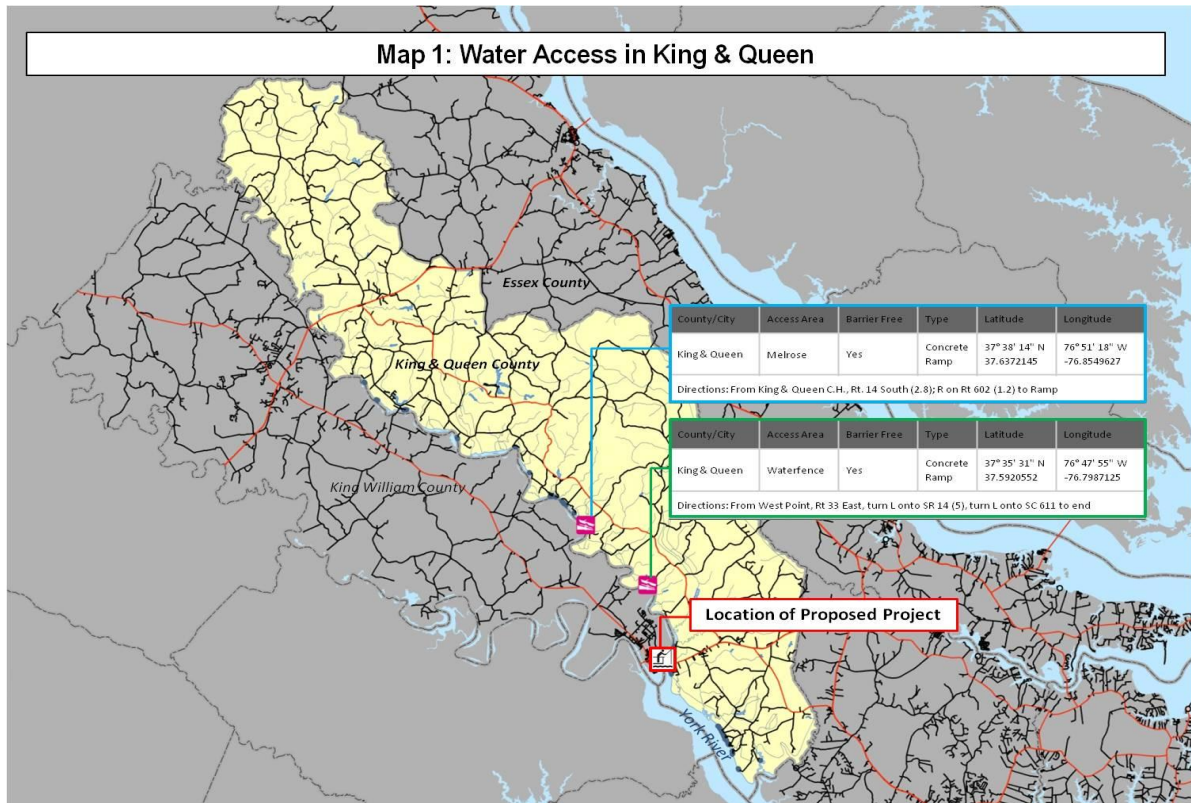


Figure 1: Location of Site at the F-600 Road Terminus.

Access to public saltwater fishing facilities in King and Queen County currently does not exist. There are two fresh water boat ramps in upper King & Queen County, on Waterfence Road and in Melrose, which provide access to the middle and upper Mattaponi River (See Map 1). Neither facility provides direct saltwater fishing experiences. Both fresh water facilities have unimproved gravel parking lots and cracked concrete ramps. The water depth at each ramp is shallow, restricting recreational fishing opportunities from the bank as well as boating access. At the confluence of the Mattaponi and York Rivers, Glass Island Landing in the Town of West Point offers saltwater ramp access to boaters as well as recreational fishermen. However during the summer months this location reaches visitor capacity and use conflict erupts. Therefore, the King and Queen County proposed public fishing pier and non-power boating access project, which will be located on the opposite shoreline of the Mattaponi River, will provide significant overcrowding relief to visitors and offer a more pleasant saltwater fishing experience for all. The public pier and launch access point will provide the only public saltwater fishing pier and non-power boat access point north of the Coleman Bridge, 25 river miles to the east. Additionally, with 26,000+ vehicles directly passing F-600 daily, the site is conveniently located to capture traffic looking for recreational access points within the Middle Peninsula.



II. Objective. Provide a concise statement of what is anticipated and target dates

King & Queen County is seeking funding to construct a ~65 ft long public recreational fishing pier; non power boating access facility and parking lot on their waterfront property at the F-600 road terminus to enhance saltwater recreational fishing access opportunities to the Mattaponi River and non motorized access to both the York and Mattaponi Rivers from the King & Queen County shoreline.

Anticipated Dates –

- **October 2014:** Local match will be provided by King and Queen County and/or the County will apply to DGIF's Grants to Localities Program for Public Boating Access Facilities for additional cost share.
- **January 2015:** receive notice of award from DGIF and VMRC
- **January 2015 – March 2015:** Finalize site plans and obtain necessary permits
- **February 2015 – March 2015:** Procurement of contractor services to construct site design
- **April 2015 – August 2015:** Construct Project (ie. fishing pier, non-power boating access, and parking lot improves for facility and appropriate signage)
- **September 2015:** Opening Day

III. Expected Results and Benefits. Describe benefits, which will accrue to Virginia' Recreation fishermen and the resource

The six county region comprising the Middle Peninsula is serviced by only one public fishing pier, located 25 river miles downstream at Gloucester Point in Gloucester County. The Gloucester Point facility is primarily accessed via US Route 17 adjacent to the Coleman Bridge. The Gloucester Point facility serves as a major recreational hub for the lower Middle Peninsula. This proposed project will begin an effort to provide a major saltwater recreational facility serving the second major entry corridor to the Middle Peninsula, the Route 33 corridor. This corridor is the

primary travel route for those traveling from the urban metro Richmond area into the Middle Peninsula for recreation purposes. The Route 33 corridor crosses the Mattaponi River and is adjacent to the proposed project location. Thus while the site will experience 26,000+ vehicles passing it daily, the site is also convenient, safe and easily accessible by foot, or bike.

Based on initial site plans the construction project will include the following:

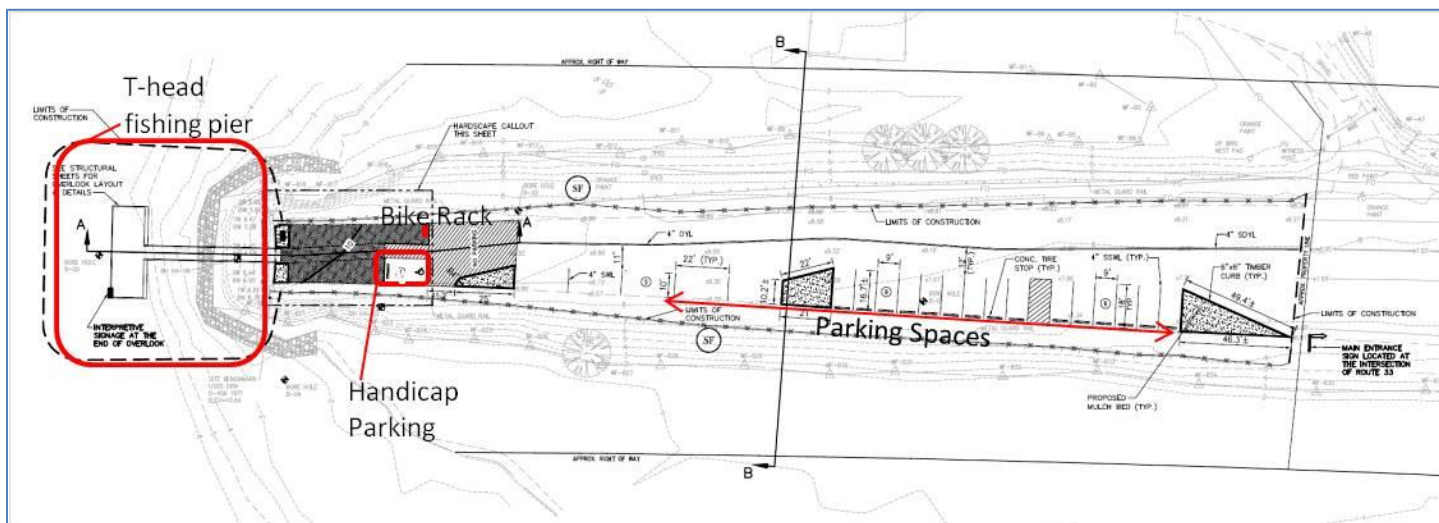


Figure 2: Diagram of Conceptual Site Plan (parking spaces not to scale).

1. T-head Fishing Pier – The pier leading up to the t-head will be approximately 65 ft long and 6 ft wide. The t-head will be 30ft by 15 ft (450 square feet). Using 16 square feet (4’ by 4’) per person, the pier will accommodate approximately 28 people. The project proposes to install interpretive signage about the ecology and history of the Mattaponi River.
2. Non-power boating access point – this will be located at the side of the pier. King & Queen County will also be applying to DGIF’s Boating Access Grant in October 2014 to request funding for this portion of the project. Therefore funds for this access point are NOT being requested from VMRC.
3. Additional Site Improvements will include:
 - a. Parking Lot will include 22 spaces for motorists to access the pier and non-power boating access site. The parking lot will also include a handicap parking space closest to the pier.
 - b. A bike rack will be available for citizens biking to the site for bird watching or fishing.
 - c. Post signage giving appropriate credit to funders (ie. Virginia Saltwater Recreation Development fund and DGIF) and Heritage Gateways and Trail signs at the entrance of the pier.

FOR IMAGES OF SITE DESIGNS PLEASE SEE THE ATTACHED DIAGRAMS

According to DGIF there were 372 residents in King & Queen County in 2011 that utilized saltwater fishing licenses (See Table 1 for details). Therefore an additional saltwater access site in the locality will enhance their saltwater fishing experience. At this location saltwater recreational fishermen will have the opportunity to catch croaker, spot, striped bass, catfish, white perch, yellow perch, and hickory shad.

License Description	Number
Resident Individual Saltwater Fishing	103
Resident 10-Day Saltwater Fishing	2
Resident Saltwater Boat Sport Fishing	118
Resident State Fresh/Saltwater Fishing	142
Resident 5-Day Fresh/Saltwater Fishing	0
Resident Tidal Boat Sport Fishing	2
Saltwater Recreational Use Five Crab Pots	1
Saltwater Recreational Use 300 Ft Gill Net	4

Virginia Department of Game and Inland Fisheries, 2011

The pier will provide an overlook to the tidal marshes of King & Queen County providing scenic views for visitors and an opportunity for bird watching enthusiasts. This location intersects the Virginia Birding and Wildlife Trail Mattaponi Loop which offers visitors prime bird and wildlife watching in the Middle Peninsula region (ie. King & Queen County).

This project will be reflective of the needs and recommendations addressed in the 2013 Virginia Outdoor Plan, including:

- ☑ Interest in water trails and additional hunting and fishing access (2013 Virginia Outdoor Plan, pg. 10.220).
- ☑ County leaders should continue to develop and promote the Captain John Smith Chesapeake National Historic Trail along the James, Chickahominy, Mattaponi, Pamunkey and York rivers. (2013 Virginia Outdoor Plan, pg. 10.187)
- ☑ Improve recreational access through continuing acquisition and improvements of public water. More specifically improvement of the old Mattaponi River bridge site (Route F-600) including installation of a public-access pier in King and Queen County, which borders King William County (2013 Virginia Outdoor Plan, pg. 10.221 – 10. 222).
- ☑ Local and regional agencies and organizations should continue support for the Mattaponi and Pamunkey rivers water trails to be connected with York River water trails (2013 Virginia Outdoor Plan, pg. 10.223).

This project will:

- Be the ONLY public access point to deep saltwater recreational fishing within 25 river miles in King & Queen County.
- Be the ONLY deep water access point for non-power boats in King & Queen County.
- Be the ONLY public fishing pier in King & Queen County.
- Be the ONLY handicap accessible fishing pier in King & Queen County.
- Provide access to the Mattaponi and Pamunkey River Water Trails for the Captain John Smith Trail (reflected in the 2013 Virginia Outdoor Plan)

Upon completion of this project this site may also be used for future fishing and boating community events to promote recreational saltwater fishing and the ecological importance of clean water as it relates to healthy fish and the marshes.

IV. Approach. Describe how the work will be conducted including step to be taken and target dates, personnel required.

King & Queen County will seek funding from VMRC Saltwater Recreational Fishing Development Fund as well as DGIF's Grants to Localities Program for Public Boating Access Facilities to construct a fishing pier and non-power boating access facility as well as make site improvements for a parking lot to access this site. King and Queen County is committed to provide local cash share if other cost sharing grants are not approved. King & Queen County seeks funds from VMRC for the pier and site improvements, while King & Queen will request funds from DGIF for the non-power boating access point, updates to the site plan, and permitting for the project. Therefore upon award of both grants and with matching cash funds from King & Queen County if needed , the county will advertise and procure bids from contractors to construct the new water access facility on the Mattaponi.

Anticipated Dates –

- October 2014: Apply to DGIF's Grants to Localities Program for Public Boating Access Facilities

- **January 2015:** receive notice of award from DGIF and VMRC
- **January 2015 – March 2015:** Finalize site plans and obtain necessary permits (DGIF funded)
- **February 2015 – March 2015:** Procurement of contractor services to construct site design
- **April 2015 – August 2015:** Construct Project (ie. fishing pier, non-power boating access, and parking lot improves for facility)
- **September 2015:** Opening Day

V. Location. Identify where the project will be carried out.

This project will take place at the Route F-600 terminus (the original location of the Lord Delaware Bridge) in King & Queen County (See Figure 3).

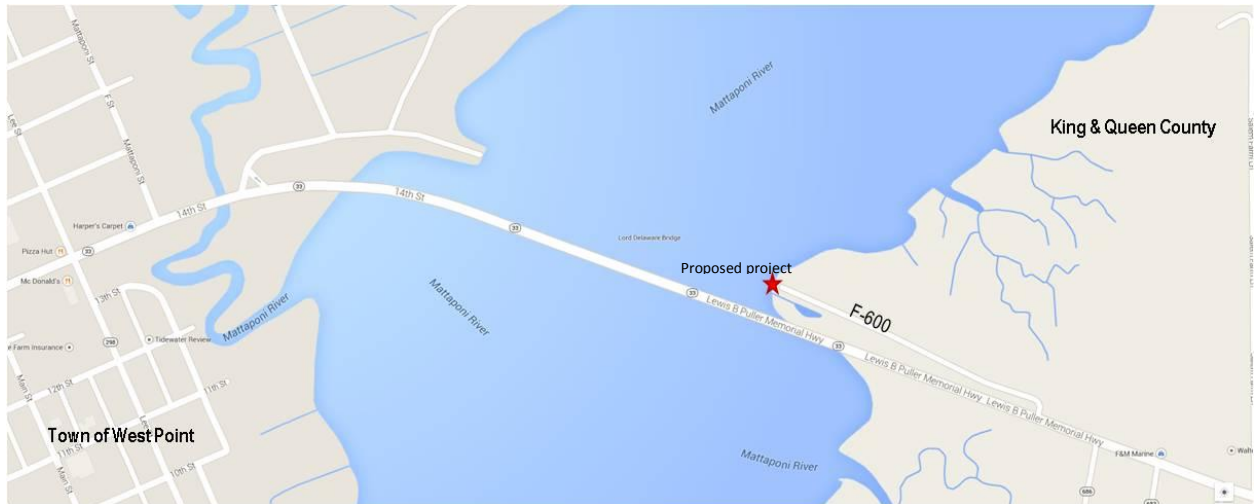


Figure 3: Location of the proposed project.

With the demolition of the Lord Delaware Bridge in 2005, King and Queen County expressed interest in purchasing the ‘surplus’ property (F-600) adjacent to the new bridge from Virginia Department of Transportation (VDOT) for economic development purposes. Following the construction of the new bridge, and VDOT determining that the road was unnecessary for Departmental use, King and Queen County successfully purchased the 1.6842 acres of surplus property, which included 0.09 miles of VDOT abandoned road (F-600) (Abandonment, VDOT Project §33.1-148), in 2008. Currently tractor trailers use the road to park and rest, while recreational fishermen attempt to fish off the rugged rip-rapped coast at the road’s end. (See the Photos below for the current conditions).



Entrance to site from Rt. 33 W



Photo from property line. The road terminus at F-600.



First road barrier at the sight with resting vehicles.



Second road barrier at the sight.



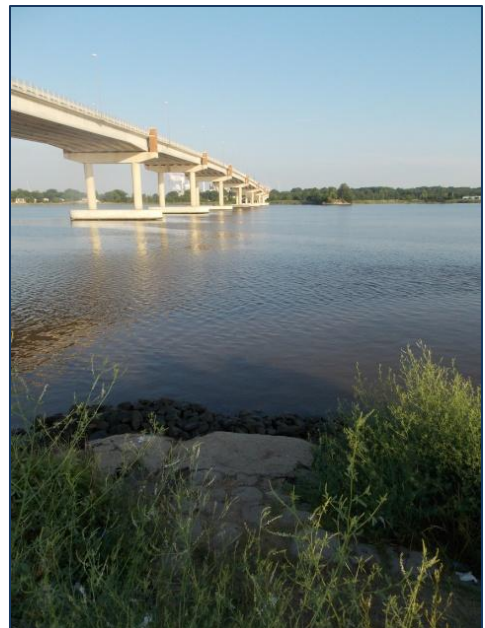
Photo of site past the second road barrier.



View of Ghost Island Landing and the Mattaponi River from the F-600 road terminus.



View of Rt. 33 bridge & Town of West Point from the site.



Some rip-rap, boulders and overgrowth at the water's edge.



Osprey on location.

VI. Estimated Costs.

Please see the project estimates attached to this application. Construction costs are based on site plan designs completed by Vanasse Hangen Brustlin, Inc. in July 2013.

Site Demolition	\$10,641
Site Improvements	\$23,830
Fishing Pier	\$125,000
Misc Services	\$6,000
<u>Misc Construction</u>	<u>\$17,000</u>
Total Cost	\$182,471

Requesting from VMRC: \$136,853.25

King & Queen County/DGIF Matching Funds: \$45,617.75

Mattaponi River Waterfront Project (50% Submission)

Transportation.Land Development.Environmental Services
 351 Mc Laws Circle
 Suite 3
 Williamsburg, VA 23185

Project # 31537.03
Date: MAR '13
Calc. By: Vik Desai
Checked By: Chris DeWitt

Concept Plan Opinion of Probable Construction Costs

Item	Qty	Unit	Cost	Total
Construction Misc.				
Mobilization	1	LS	\$ 11,000	\$ 11,000
Demobilization	1	LS	\$ 6,000	\$ 6,000
CONSTRUCTION MISC. TOTAL				\$ 17,000
Misc. Services				
Survey Stakeout	1	LS	\$ 3,000	\$ 3,000
Survey Record Drawings	1	LS	\$ 3,000	\$ 3,000
MISC. SERVICES TOTAL				\$ 6,000
Site Demolition				
Pavement Removal & Disposal Off Site (8" Depth)	100	SY	\$ 27	\$ 2,700
Pavement Removal & Disposal Off Site (Full Depth)	3	SY	\$ 100	\$ 300
Pavement Milling & Disposal Off Site (4" Depth)	126	CY	\$ 11	\$ 1,386
Sawcut Pavement (8")	180	LF	\$ 5	\$ 900
Sawcut Pavement (22")	230	LF	\$ 11	\$ 2,530
Barricade Removal	1	LS	\$ 500	\$ 500
Striping Removal	1375	LF	\$ 0.60	\$ 825
Reflectors Removal	1	LS	\$ 500	\$ 500
Sign Removal	1	LS	\$ 1,000	\$ 1,000
SITE DEMILITION TOTAL				\$ 10,641
Site Improvements				
Concrete Curb Stops	16	EA	\$ 350	\$ 5,600
6"x6" timber Curb	280	LF	\$ 16	\$ 4,480
Stamppped Asphalt (4")	130	SY	\$ 30	\$ 3,900
Pavement Marking	1	LS	\$ 2,000	\$ 2,000
Traffic & Rules Signs	1	LS	\$ 2,000	\$ 2,000
Split Rail Fence	36	LF	\$ 30	\$ 1,080
Timber Boardwalk Railing (For Edge)	20	LF	\$ 50	\$ 1,000
Gravel Fill Material (at Pavement Removal)	11	CY	\$ 25	\$ 275
Top Soil Fill Material (at Pavement Removal)	11	CY	\$ 35	\$ 385
Mulch Fill Material (at Pavement Removal) Labor Only	11	CY	\$ 10	\$ 110
Seeding	1	LS	\$ 1,000	\$ 1,000
Erosion & Sediment Control	1	LS	\$ 2,000	\$ 2,000
SITE IMPROVEMENTS TOTAL				\$ 23,830
HARDSCAPE				
Picnic Tabela	6	EA	\$ 750	\$ 4,500
Trash Cans	2	EA	\$ 400	\$ 800
HARDSCAPE TOTAL				\$ 5,300
FISHING PIER				
Handrail	176	LF	\$ 42	\$ 7,392
10" Piles	24	EA	\$ 2,250	\$ 54,000
Super Structure	900	SF	\$ 43	\$ 38,700
FISHING PIER TOTAL				\$ 100,092

TOTAL	\$ 162,863
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15% Contingency

24,429.45

OVERALL TOTAL	\$ 187,292
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NOTE: DOES NOT INCLUDE REQUIRED CONSTRUCTION / CONTRACTOR BONDS, ETC.

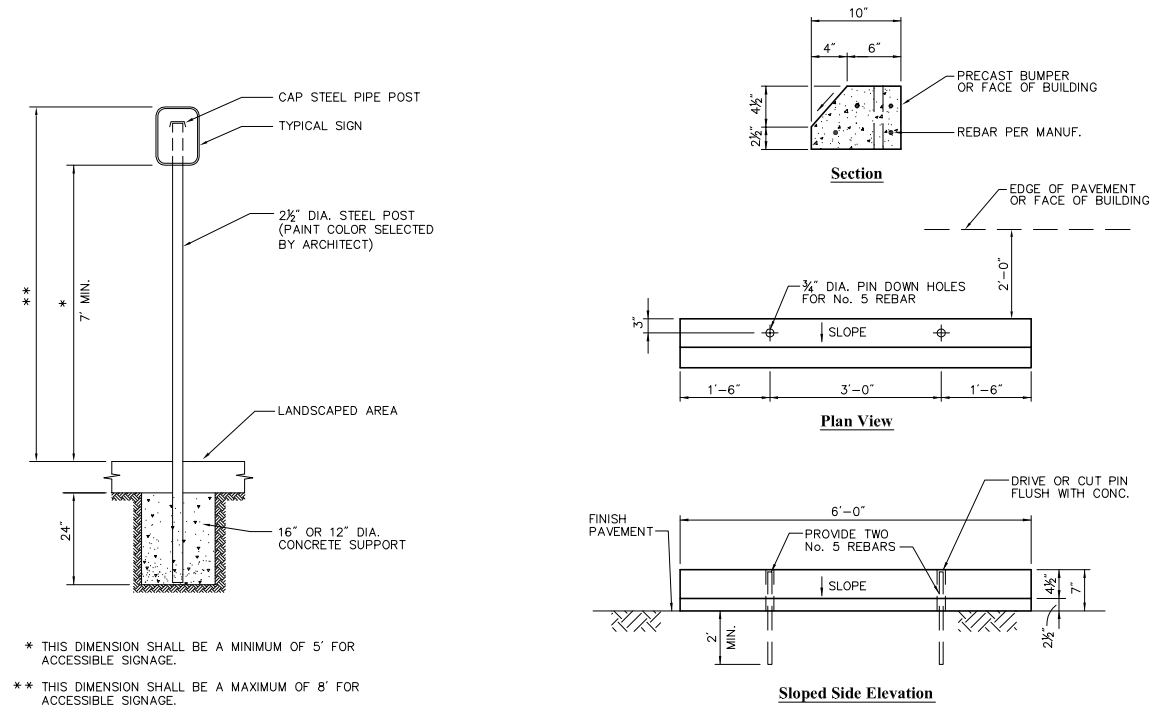
Saved Monday, March 11, 2013 10:05:33 AM WDESAM Plotted Tuesday, July 02, 2013 2:32:20 PM Desai, Vincent



Vanasse Hangen Brustlin, Inc.

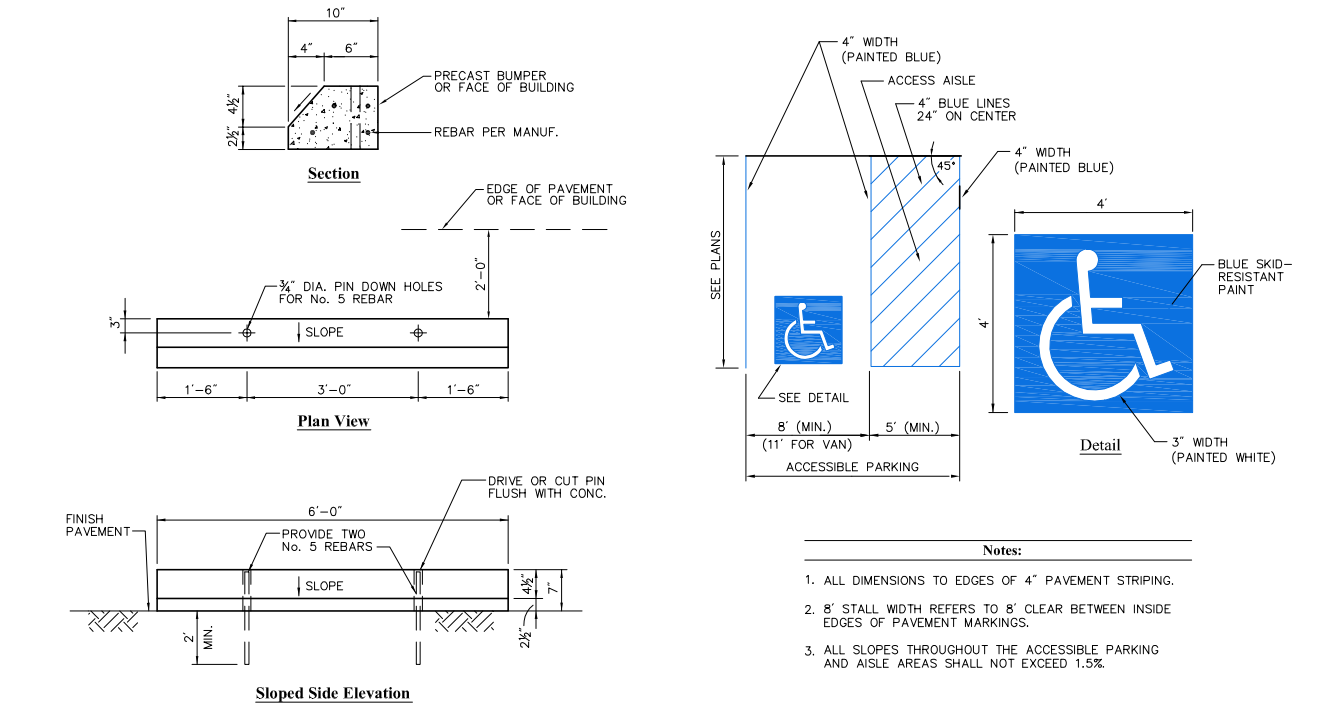
Transportation
Land Development
Environmental Services

351 McLaws Circle, Suite 3
Williamsburg, Virginia 23185
757.220.0500 • FAX 757.220.8544

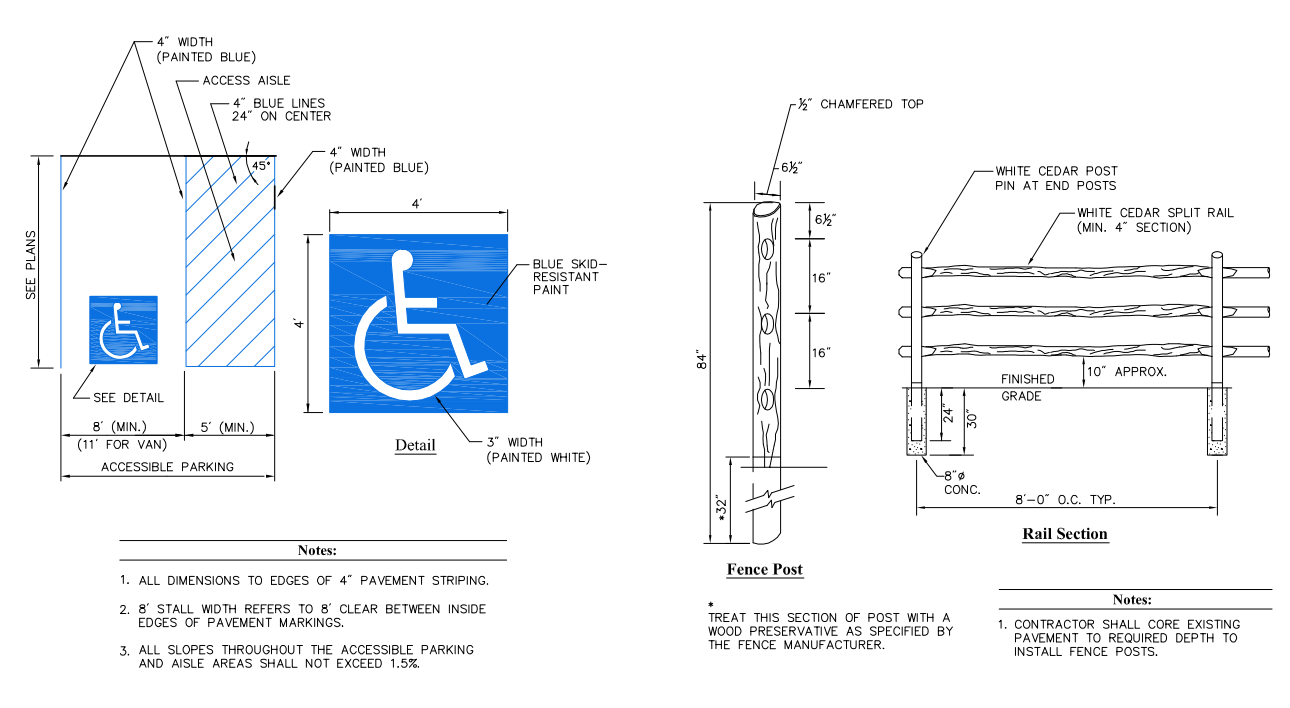


* THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.
** THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE.

Sign Post - Type 'A' 4/12
N.T.S. Source: VHB REV LD_701

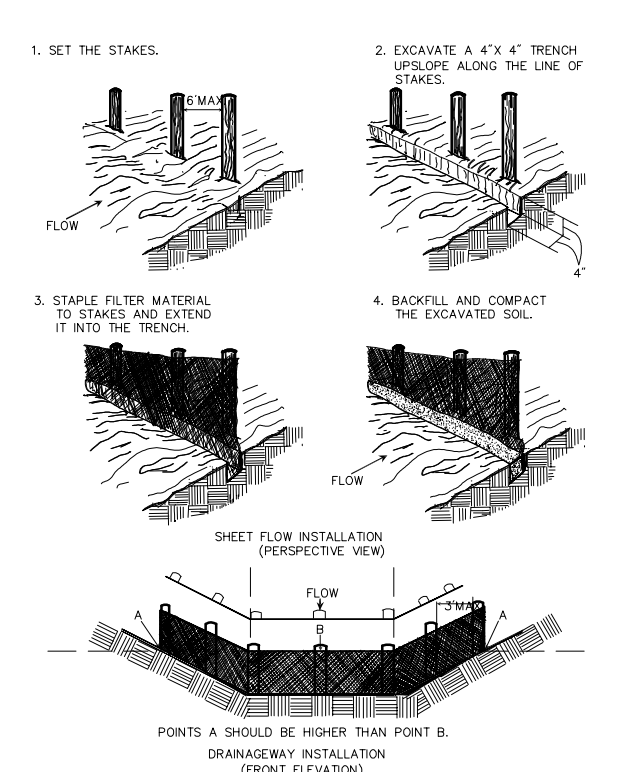


Concrete Bumper 6/08
N.T.S. Source: VHB REV LD_417



Accessible Parking Space 11/10
N.T.S. Source: VHB REV LD_552

Split Rail Fence 6/08
N.T.S. Source: VHB REV LD_460



Construction Of A Silt Fence (Without Wire Support) 6/08
N.T.S. Source: Virginia Erosion And Sediment Control Handbook Plate 3.05-2

TABLE 3.32-D SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

Minimum Core Lawn	Total Lbs. Per Acre
-Commercial or Residential	175-200 lbs.
-Kentucky 31 or Turf-Type Tall Fescue	95-100%
-Improved Perennial Ryegrass	0-5%
-Kentucky Bluegrass	0-5%
High-Maintenance Lawn	Total Lbs. Per Acre
-Kentucky 31 or Turf-Type Tall Fescue	200-500 lbs.
-Kentucky 31 or Turf-Type Tall Fescue	100%
General Slope (3:1 or Less)	Total Lbs. Per Acre
-Kentucky 31 Fescue	128 lbs.
-Red Top Grass	2 lbs.
-Seasonal Nurse Crop*	20 lbs.
	150 lbs.
Low Maintenance Slope (Steeper than 3:1)	Total Lbs. Per Acre
-Kentucky 31 Fescue	108 lbs.
-Red Top Grass	2 lbs.
-Seasonal Nurse Crop*	20 lbs.
-Crownvetch**	20 lbs.
	150 lbs.

* Use seasonal nurse crop in accordance with seeding dates as stated below:
February 16th through April Annual Rye
May 1st through August 15th Foxtail Millet
August 16th through October Annual Rye
November through February 15th Winter Rye

** Substitute Sericea lespedeza for Crownvetch east of Farmville, VA. (May through September use hulled Sericea, all other periods, use unhulled Sericea). If Flatpea is used in lieu of Crownvetch, increase rate to 30lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre in mixes.

Note: Contractor shall coordinate all permanent seeding with owner's representative.

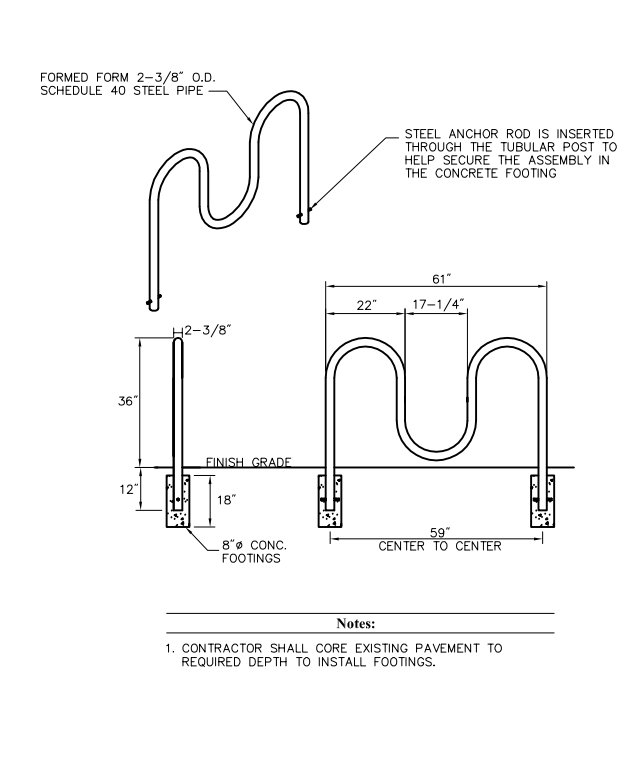
Permanent Seeding Specifications 3/02
N.T.S. Source: Virginia Erosion And Sediment Control Handbook PL 3.32-D

TABLE 3.35-A ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCHES:	RATES:		NOTES:
	Per Acre	Per 1000 sq. ft.	
Straw or Hay	1 1/2 - 2 tons (Minimum 2 tons for winter cover)	70 - 90 lbs.	Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand.
Fiber Mulch	Minimum 1500 lbs.	35 lbs.	Do not use as mulch for winter cover or during hot, dry periods.* Apply as slurry.
Corn Stalks	4 - 6 tons	185 - 275 lbs.	Cut or shredded in 4-6" lengths. Air-dried. Do not use in fine turf areas. Apply with mulch blower or by hand.
Wood Chips	4 - 6 tons	185 - 275 lbs.	Free of coarse matter. Air-dried. Treat with 12 lbs nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.
Bark Chips or Shredded Bark	50 - 70 cu. yds.	1-2 cu. yds.	Free of coarse matter. Air-dried. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.

* When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2000 lbs./ac. or 45 lbs./1000 sq. ft.

Mulching Specifications 3/35-A
N.T.S. Source: Virginia Erosion And Sediment Control Handbook PL 3.35-A



Bike Rack
N.T.S. Source:

No.	Revision	Date	Appr.

Designed by _____ Drawn by _____ Checked by _____
CAD checked by _____ Approved by _____
Scale Not Applicable Date July 2, 2013
Project Title

Mattaponi Riverfront Overlook
King & Queen County, VA
Issued for
50% Submission for County/VDOT

Not Approved for Construction
Drawing Title

Site Details

Drawing Number
C-5
Sheet of 5 8
Project Number
31537.03

GENERAL SPECIFICATIONS:

VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, 2007 (WITH REVISIONS)

DESIGN SPECIFICATIONS:

AASHTO GUIDE SPECIFICATION FOR DESIGN OF PEDESTRIAN BRIDGES, 1997
NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION AND SUPPLEMENT (NDS), 2005

DESIGN METHOD:

SERVICE LOAD DESIGN

DESIGN LOADING:

BOARDWALK AND SUPPORTING MEMBERS: 85 PSF PEDESTRIAN LOAD (NO VEHICULAR LOADING)
RAILING LOADING: 50 PLF APPLIED VERTICALLY AND HORIZONTALLY SIMULTANEOUSLY PER RAIL
RAIL POST LOADING: 300 LB APPLIED TO THE TOP OF THE RAIL POST
RAILING AND RAIL POSTS ARE NOT DESIGNED TO RESIST VEHICULAR IMPACT.

MATERIALS:

ALL TIMBER SHALL BE TREATED SOUTHERN PINE AND SHALL CONFORM TO THE REQUIREMENTS OF VDOT SPECIFICATIONS SECTIONS 236 AND 418. TIMBER SHALL HAVE THE FOLLOWING MINIMUM PRESERVATIVE RETENTION RATES (LBS OF PRESERVATIVE PER CUBIC FOOT OF TIMBER):

SUBSTRUCTURE: INCL. PILES, PILE CAPS, AND CROSS BRACING
2.5 CHROMATED COPPER ARSENATE (CCA)

SUPERSTRUCTURE (BELOW DECK): INCL. STRINGERS, BLOCKING, NAILERS, FASCIA BEAM, AND POST SPACERS
0.60 CCA OR ALKALINE COPPER QUAT (ACQ)

SUPERSTRUCTURE (DECK AND ABOVE): INCL. DECK, RAIL POSTS, RAIL CAPS, RAILS, AND BALUSTERS
0.60 ACQ OR 0.31 COPPER AZOLE (CA)

CCA TREATMENT SHALL NOT BE USED ON ANY MEMBERS THAT MAY BE IN PUBLIC CONTACT. ALL PRESERVATIVES SHALL BE WATERBORNE.

ALL STRUCTURAL STEEL SHALL BE GRADE 50 HOT-DIP GALVANIZED UNLESS NOTED. STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH SECTION 407 OF THE ROAD AND BRIDGE SPECIFICATIONS.

PILING:

PILE INSTALLATION TOLERANCES SHALL BE IN ACCORDANCE WITH VDOT SPECIFICATIONS SECTION 236.02(B).

THE FOLLOWING GUIDELINES SHALL BE FOLLOWED IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS ESTABLISHED BY SCHNABEL ENGINEERING, LLC, IN THEIR GEOTECHNICAL ENGINEERING STUDY FOR THIS PROJECT DATED FEBRUARY 11, 2013.

ALL PILES SHALL BE DRIVEN TO ACHIEVE 10 TON DESIGN LOAD (UNFACTORED) UNLESS DIRECTED BY THE ENGINEER. THE PILES SHOULD HAVE A MINIMUM TIP CIRCUMFERENCE OF 25" (NOMINAL 8-INCH DIAMETER) WITH A NOMINAL BUTT CIRCUMFERENCE OF 33 INCHES (NOMINAL 10.5-INCH BUTT DIAMETER MEASURED 3 FT FROM THE TOP OF THE PILE) PER ASTM D-25, TABLE 2(B).

A MINIMUM PILE TIP EL. OF -65.0 IS REQUIRED AND THE PILE SHOULD BE DRIVEN AT LEAST 5 FEET INTO THE SANDS OF STRATUM B3 .

A MINIMUM OF TWO CONTROL PILES SHOULD BE INSTALLED AT AT LOCATIONS SELECTED BY THE GEOTECHNICAL ENGINEER BEFORE PRODUCTION PILES ARE ORDERED. THE GEOTECHNICAL ENGINEER WILL VERIFY AND ESTABLISH DRIVING CRITERIA FOR THE PRODUCTION PILES BASED ON THE CONTROL PILES.

PILES SHALL BE INSTALLED IN ONE PIECE. SPLICES WILL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER.

PILE DRIVING HAMMER SPECIFICATIONS SHALL BE SUBMITTED TO THE GEOTECHNICAL ENGINEER TO ASSESS PILE DRIVING SYSTEM SUITABILITY.

PIER BENTS SHALL BE BRACED AT LOCATIONS WHERE THE ELEVATION AT THE BOTTOM OF PILE CAP IS GREATER THAN 4 FT ABOVE GRADE.

GENERAL NOTES:

ALL CONNECTIONS AND FASTENERS SHALL BE CAPABLE OF DEVELOPING THE FULL CAPACITY OF THE STRUCTURAL MEMBERS ACCORDING TO THE NDS GUIDELINES. ALL CONNECTIONS OR FRAMING NOT OTHERWISE DETAILED ON THE PLANS SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO BEGINNING THE WORK OR ORDERING MATERIALS. SHOP DRAWINGS SHALL INCLUDE THE CONTRACTOR'S PROPOSED DETAILS FOR ALL BOARDWALK SPANS AND TYPICAL CONNECTIONS.

MEMBER SIZES SHALL BE STANDARD DRESSED DIMENSIONS FOR SAWN LUMBER AS SPECIFIED BY THE SOUTHERN PINE INSPECTION BUREAU (SPIB) GRADING RULES, 2002.

CUTS, ABRASIONS, NOTCHED MEMBERS, AND BOLT HOLES BORED AFTER PRESERVATIVE TREATMENT SHALL BE TREATED WITH A SIMILAR PRESERVATIVE AS THE TYPE USED TO TREAT THE PRODUCT. WHEN FIELD APPLICATIONS OF THE PRESERVATIVE ARE REQUIRED, THE MATERIALS SHALL BE FURNISHED, PREPARED, AND APPLIED IN ACCORDANCE WITH AWPA STANDARD M4. ALL DISTURBANCES TO THE SURFACE OF THE TREATED WOOD SHALL BE TREATED IN ACCORDANCE WITH SECTION 418 OF THE ROAD AND BRIDGE SPECIFICATIONS.

PILE HEADS SHALL BE TREATED IN ACCORDANCE WITH SECTION 418.03(d) OF THE ROAD AND BRIDGE SPECIFICATIONS.

ALL DECKING SHALL BE FASTENED USING STAINLESS STEEL LAG SCREWS. LAG SCREWS SHALL BE COUNTERSUNK. ALL COUNTERSUNK HOLES SHALL BE FILLED WITH AN APPROVED SEALANT (HOT PITCH PER VDOT SPECIFICATIONS 418.03(G)). LAG SCREW CONNECTIONS SHALL BE TIGHTENED SO THAT ELEMENTS COME TOGETHER WITHOUT STRIPPING OUT THE WOOD IN THE PRE-DRILLED HOLES. ALL LAG SCREWS SHALL COMPLY WITH THE REQUIREMENTS OF ANSI/ASME STANDARD B18.2.1, GRADE 2.

USE BOLTED CONNECTIONS FOR RAILPOST AND PILE CONNECTIONS. BOLTED FASTENERS SHALL NOT BE OVER-TIGHTENED. THROUGH BOLT CONNECTIONS SHALL BE TIGHTENED SO THAT WASHERS JUST START TO PRESS INTO THE WOOD SUBSTRATE. ALL THROUGH BOLT CONNECTIONS SHALL HAVE A FLAT WASHER ON BOTH SIDES AND LOCK WASHER UNDER ALL NUTS. ALL THREADED ROD FOR PILE CAP TO PILE CONNECTIONS SHALL CONFORM TO ASTM F1554, GRADE 55. CONNECTIONS SHALL USE OGEE WASHERS, LOCK WASHERS, AND NUTS ON EACH END. ALL BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307 UNLESS NOTED OTHERWISE. NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A563. WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A436. ALL BOLTS, NUTS, AND WASHERS SHALL BE HOT-DIP GALVANIZED.

BLOCKING SHALL BE FASTENED WITH STAINLESS STEEL SCREWS. SCREWS SHALL BE DRIVEN WITH THE HEADS COUNTERSUNK 1/16" BELOW THE SURFACE OF THE WOOD.

HURRICANE TIES AND THEIR FASTENING CONNECTORS (SCREWS) SHALL BE STAINLESS STEEL. ALL OTHER STEEL HARDWARE IN CONTACT WITH TIMBER PRESERVED WITH CCA SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH VDOT SECTION 233. ALL CONNECTORS IN CONTACT WITH TIMBER TREATED WITH A PRESERVATIVE OTHER THAN CCA SHALL BE STAINLESS STEEL.

NAILS ARE NOT ALLOWED AS A CONNECTOR.

DRIFT BOLTS ARE NOT REQUIRED FOR PILE TO PILE CAP CONNECTIONS.

SEE SITE PLANS FOR BOARDWALK LAYOUT, PLAN, AND PROFILE.



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No.	Revision	Date	Appd.
Designed by	Drawn by	Checked by	
CAD checked by		Approved by	
Scale Not Applicable		Date July 2, 2013	
Project Title			

**Mattaponi Riverfront
Overlook**

King & Queen County, VA
Issued for
50% Submission for County/VDOT

Not Approved for Construction
Drawing Title
Overlook Notes

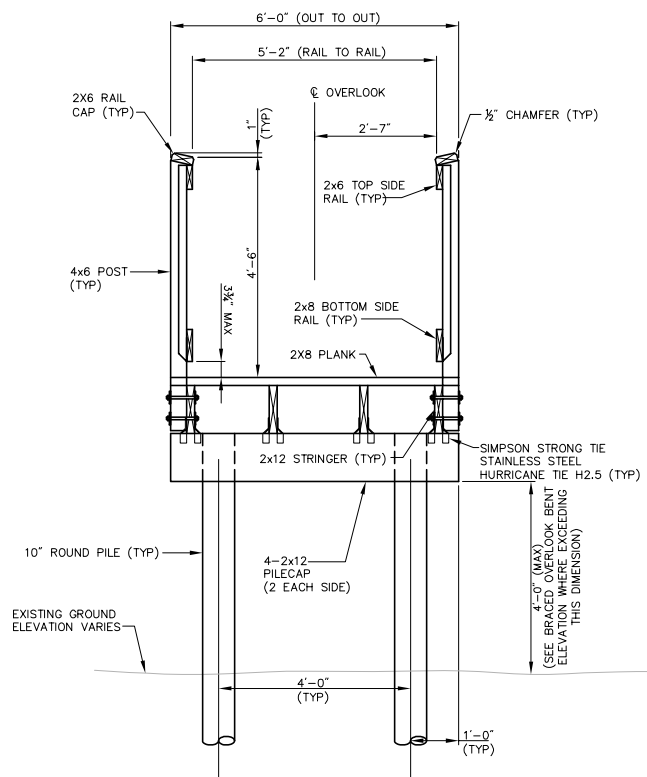


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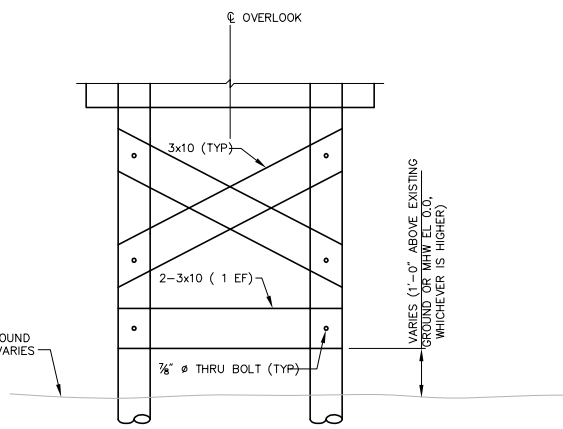
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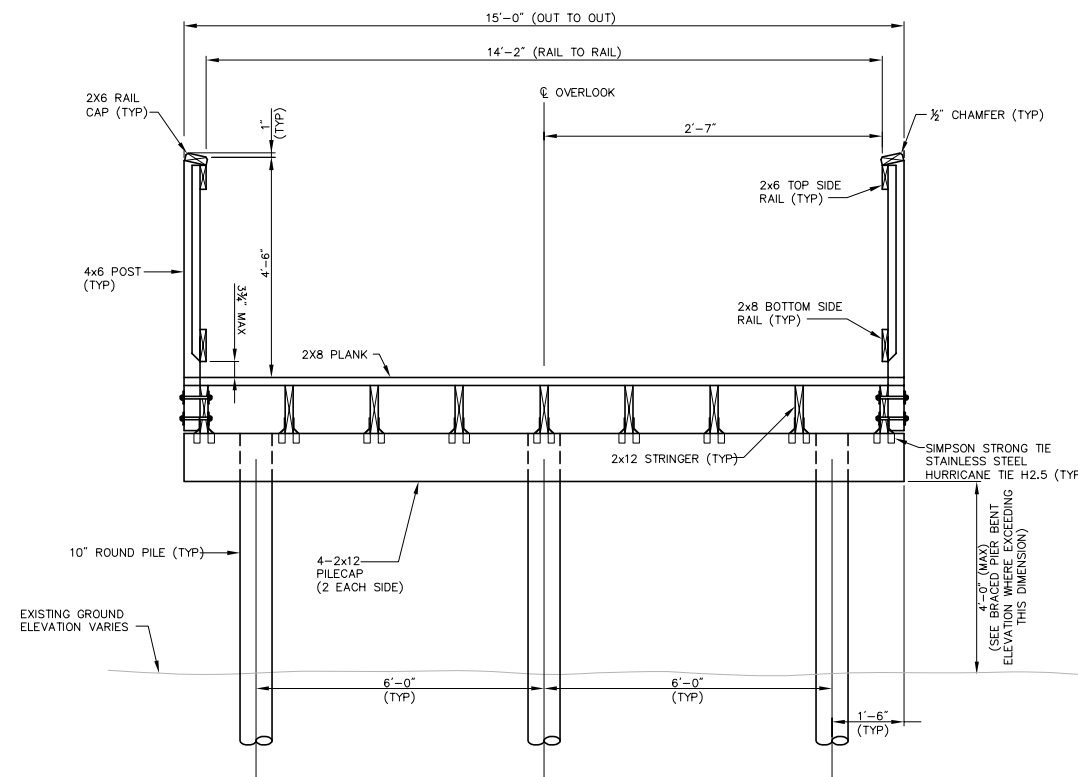
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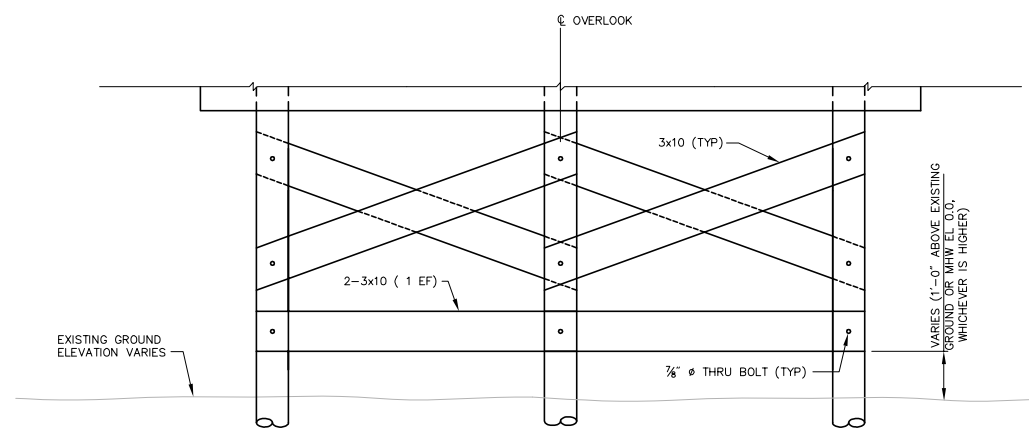
TYPICAL OVERLOOK (6' WIDTH)
(UNBRACED PIER BENT SHOWN)
SCALE: 1/2" = 1'-0"



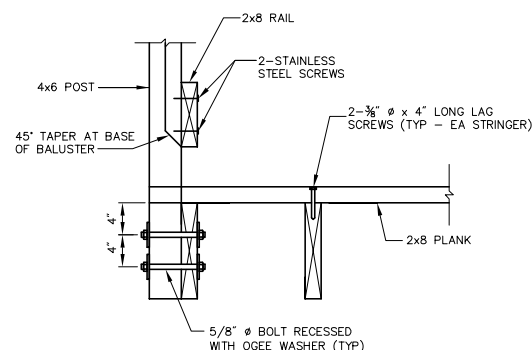
BRACED PIER BENT ELEVATION (6' WIDTH)
SCALE: 1/2" = 1'-0"



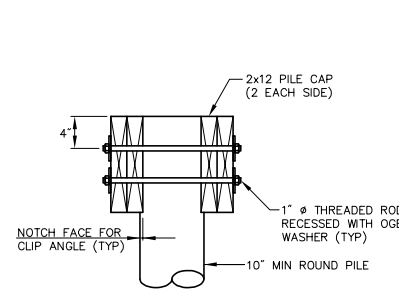
TYPICAL OVERLOOK (15' WIDTH)
(UNBRACED PIER BENT SHOWN)
SCALE: 1/2" = 1'-0"



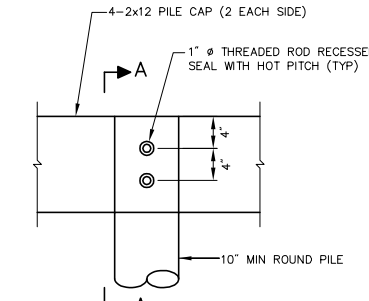
BRACED OVERLOOK BENT ELEVATION (15' WIDTH)
SCALE: 1/2" = 1'-0"



CONNECTION DETAIL
SCALE: 1" = 1'-0"



SECTION A-A
SCALE: 1" = 1'-0"



PILE CAP CONNECTION DETAILS - ELEVATION
SCALE: 1" = 1'-0"

No.	Revision	Date	App'd.

Designed by: _____ Drawn by: _____ Checked by: _____
 CAD checked by: _____ Approved by: _____
 Scale: As Shown Date: July 2, 2013
 Project Title: _____

Mattaponi Riverfront Overlook

King & Queen County, VA
Issued for
50% Submission for County/VDOT

Not Approved for Construction
Drawing Title
Overlook Details

Drawing Number

S-3

Sheet of 8 8

Project Number
31537.03