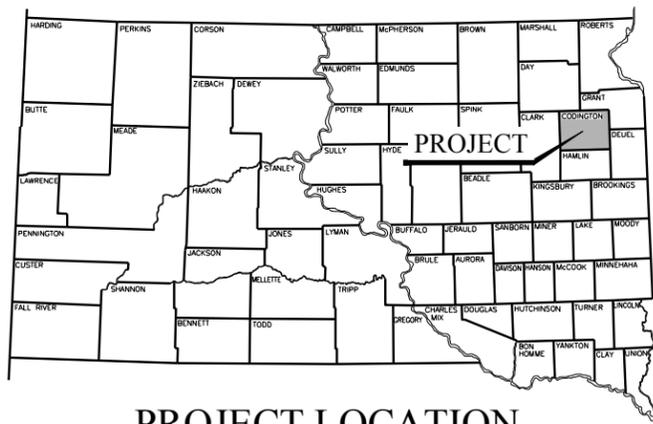


STATE OF SOUTH DAKOTA	PROJECT P 4243(03)	SHEET 1	TOTAL SHEETS 186
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Revised January 27, 2015 by JWD

FOR BIDDING PURPOSES ONLY



PROJECT LOCATION

# STATE OF SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED  
PROJECT P 4243(03)  
19TH STREET FROM 14TH AVENUE NE  
to 1ST AVENUE NE  
WATERTOWN, SOUTH DAKOTA  
GRADING, CURB & GUTTER, SIDEWALK, STORM SEWER,  
ASPHALT CONCRETE COMPOSITE PAVEMENT, MILLING, & PAVEMENT MARKING  
PCN 03DM

## INDEX OF SECTIONS

- Section A: Estimate of Quantities
- Section B: Grading Plans
- Section C: Traffic Control Plans
- Section D: Erosion Control Plans
- Section F: Surfacing Plans
- Section M: Pavement Marking Plans
- Section X: Cross Sections

## DESIGN DESIGNATION

ADT (2013)	6650
ADT (2033)	8095
DHV	910
D	50%
T DHV	1.7%
T*ADT	3.7%
V	35 MPH

## STORM WATER PERMIT

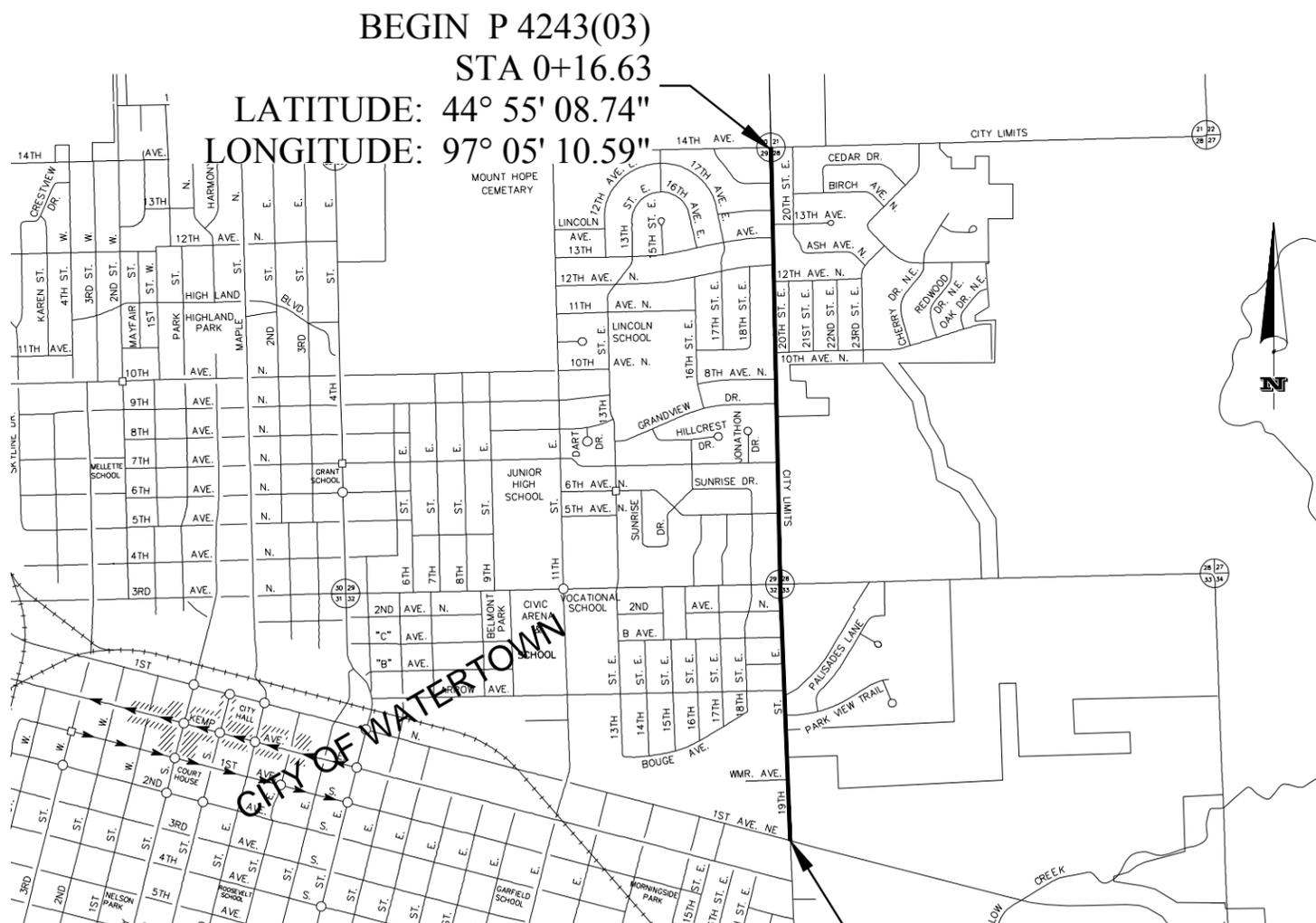
MAJOR STREAM: UNNAMED TRIBUTARY  
PROJECT AREA: 12.80 ACRES  
AREA DISTURBED: 12.80 ACRES  
LATITUDE: 44°55'08.74"  
LONGITUDE: 97°05'10.59"

GROSS LENGTH	8367.27	FEET	1.58	MILES
LENGTH OF EXCEPTIONS	----	FEET	----	MILES
NET LENGTH	-----	FEET	-----	MILES

LENGTH OF GRADING ----- FEET ----- MILES

### SCALES

PLAN	1"=40'
PROFILE	1"=40' HORIZONTAL 1"=10' VERTICAL
CROSS SECTIONS	1"=20' HORIZONTAL 1"=10' VERTICAL



LOCATION MAP

END P4243(03)  
STA 83+83.90  
LATITUDE: 44° 53' 46.12"  
LONGITUDE: 97° 05' 10.59"



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Z:\2013 PROJECTS\X13038 WATERTOWN 19TH STREET\DESIGN\SEC A\SECTION TITLE SHEET.DWG 1/27/2015 10:50 AM

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

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## Grading – Section B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	0.694	Mile
009E3250	Miscellaneous Staking	0.463	Mile
009E3280	Slope Staking	0.463	Mile
009E3300	Three Man Survey Crew	20	Hour
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and Gutter	699	Ft
110E1110	Remove Concrete Approach Pavement	39.7	SqYd
110E1140	Remove Concrete Sidewalk	533.4	SqYd
110E7150	Remove Sign for Reset	9	Each
120E0010	Unclassified Excavation	12,748	CuYd
120E0600	Contractor Furnished Borrow	7489	CuYd
120E2000	Undercutting	4246	CuYd
120E6100	Water for Embankment	177.5	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	7124.6	Ton
380E3520	6" PCC Approach Pavement	207.8	SqYd
450E0102	12" RCP Class 2, Furnish	10	Ft
450E0110	12" RCP, Install	10	Ft
450E0112	15" RCP Class 2, Furnish	302	Ft
450E0120	15" RCP, Install	302	Ft
450E0122	18" RCP Class 2, Furnish	1133	Ft
450E0130	18" RCP, Install	1133	Ft
450E0142	24" RCP Class 2, Furnish	218	Ft
450E0150	24" RCP, Install	218	Ft
450E0162	30" RCP Class 2, Furnish	204	Ft
450E0170	30" RCP, Install	204	Ft
450E0182	36" RCP Class 2, Furnish	32	Ft
450E0190	36" RCP, Install	32	Ft
450E0202	48" RCP Class 2, Furnish	67	Ft
450E0210	48" RCP, Install	67	Ft
450E2000	12" RCP Flared End, Furnish	1	Each
450E2001	12" RCP Flared End, Install	1	Each
450E2004	15" RCP Flared End, Furnish	3	Each
450E2005	15" RCP Flared End, Install	3	Each
450E2008	18" RCP Flared End, Furnish	5	Each
450E2009	18" RCP Flared End, Install	5	Each
450E2028	36" RCP Flared End, Furnish	1	Each
450E2029	36" RCP Flared End, Install	1	Each
450E2036	48" RCP Flared End, Furnish	1	Each
450E2037	48" RCP Flared End, Install	1	Each
450E3052	48" RCP Arch Class 2, Furnish	356	Ft
450E3060	48" RCP Arch, Install	356	Ft
451E6080	Adjust Water Valve Box	1	Each
462E0100	Class M6 Concrete	43.4	CuYd
480E0100	Reinforcing Steel	8321	Lb
600E0200	Type II Field Laboratory	1	Each
635E5535	Sawed-In, Preformed Detector Loop	4	Each
650E0060	Type B66 Concrete Curb and Gutter	5043	Ft
650E4660	Type P6 Concrete Gutter	453	Ft
651E0040	4" Concrete Sidewalk	40,065	Sq.Ft.
651E0060	6" Concrete Sidewalk	2232	Sq Ft
651E7000	Type I Detectable Warnings	650	Sq.Ft.
670E1200	Type B Frame and Grate Assembly	17	Each
670E2200	Type C Frame and Grate	1	Each
671E6007	Type A7 Manhole Frame and Lid	3	Each
671E7010	Adjust Manhole	2	Each
720E1015	Bank and Channel Protection Gabion	12.0	CuYd
900E0010	Refurbish Single Mailbox	7	Each

## Traffic Control – Section C

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	120	Hour
634E0100	Traffic Control	4044	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E2020	Temporary Curb Ramp	8	Each

## Erosion and Sediment Control – Section D

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	7	CuYd
110E1695	Remove Sediment Filter Bag	468	Ft
110E1700	Remove Silt Fence	152	Ft
120E6300	Water for Vegetation	41.9	MGal
230E0010	Placing Topsoil	1551	CuYd
730E0206	Type D Permanent Seed Mixture	880	Lb
731E0200	Fertilizing	0.14	Ton
732E0200	Fiber Mulching	2.9	Ton
734E0180	Sediment Filter Bag	468	Ft
734E0604	High Flow Silt Fence	609	Ft
734E0610	Mucking Silt Fence	42	CuYd
734E0620	Repair Silt Fence	152	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	16	Each
734E0855	Interim Sediment Control at Inlet	16	Each
734E5010	Sweeping	30	Hour
900E1320	Construction Entrance	2	Each

## Surfacing – Section F

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	31.9	MGal
260E1030	Base Course, Salvaged	7124.6	Ton
320E0007	PG 64-28 Asphalt Binder	350.7	Ton
320E1050	Class E Asphalt Concrete	5494.8	Ton
320E3000	Compaction Sample	3	Each
330E0100	SS-1h or CSS-1h Asphalt for Tack	7.5	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	7.5	Ton
330E2000	Sand for Flush Seal	269.1	Ton
332E0010	Cold Milling Asphalt Concrete	25,136	SqYd

## Pavement Marking – Section M

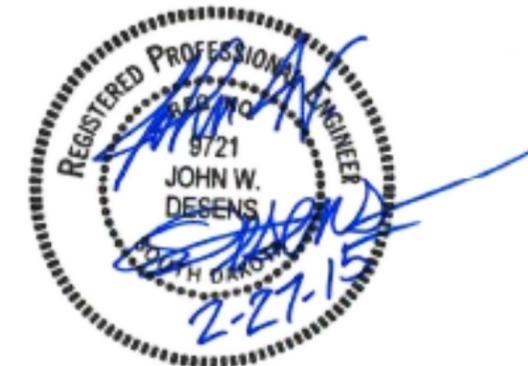
BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E3000	Durable Pavement Marking Paint, 4" White	331	Ft
633E3005	Durable Pavement Marking Paint, 4" Yellow	16,663	Ft
633E3030	Durable Pavement Marking Paint, 24" White	414	Ft
633E3045	Durable Pavement Marking Paint, Arrow	52	Each
633E5100	Grooving for Durable Pavement Marking, 4"	16,994	Ft
633E5115	Grooving for Durable Pavement Marking, 24"	414	Ft
633E5125	Grooving for Durable Pavement Marking, Arrow	52	Each

### INDEX OF SHEETS

A1	Estimate of Quantities for Sections B,C,D,F, and M
A2 to A3	Environmental Commitments

### SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.



# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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## ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

### COMMITMENT A: WETLANDS

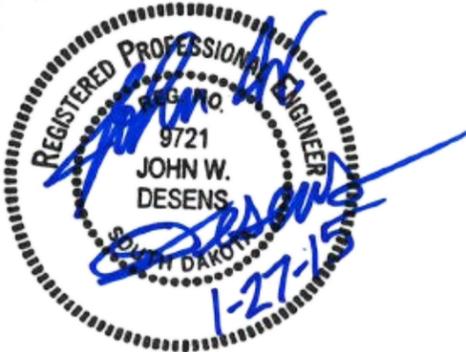
No wetlands will be impacted by the project.

### COMMITMENT C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

### Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.



## COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance.

### Action Taken/Required:

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

The Contractor shall adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State".

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT: <http://sddot.com/transportation/highways/environmental/stormwater/Default.aspx>

DENR: <http://www.denr.sd.gov/des/sw/stormwater.aspx>

EPA: [http://cfpub.epa.gov/npdes/home.cfm?program\\_id=6](http://cfpub.epa.gov/npdes/home.cfm?program_id=6)

### Contractor Certification Form:

The "Department of Environment and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

The online form can be found at: <http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf>

## COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

### Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the City ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the City ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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## COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all designated option borrow sites provided within the plans.

### Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

## COMMITMENT J: CONSTRUCTION PRACTICES FOR TEMPORARY WORKS IN WATERWAYS OF THE U.S.

The Contractor is advised that special construction measures have to be taken to ensure that the waterways of the U.S. are not impacted.

### Action Taken/Required:

No excavation shall be made below the ordinary high water elevation in waterways outside of caissons, cribs, cofferdams, steel piling, or sheeting; and the natural streambed shall not be disturbed unless specified by the plans and under the observation of the Project Engineer. Refer to the Table of U.S. Waterways to Protect for ordinary high water elevations.

All dredged or excavated materials shall be placed at a site above the ordinary high water elevation in a confined area (not classified as a wetland) that is a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and inlets to prevent return of such material to the waterway.

The construction of temporary work platforms, crossings, or berms below the ordinary high water elevation will be allowed provided that all material placed below the ordinary high water elevation consists of Class B or larger riprap.

All temporary caissons, cribs, cofferdams, steel piling, sheeting, work platforms, crossings, and berms shall be removed with minimal disturbance to the streambed. Proper construction practices shall be used to minimize increases in suspended solids and turbidity in the waterway.

Bridge berms, wing dams, traffic diversions, channel reconstruction, grading, etc. shall be constructed in close conformity with the plans to ensure that the hydraulic capacity of the waterway is not changed.

Temporary waterway crossings required for the Contractors construction operations shall be constructed with an adequate drainage structure size and minimum fill height to reduce the potential for upstream flooding. The Contractor will be responsible for sizing the temporary drainage structure for these crossings.

