

January 8, 2013

SUBJECT: FAP Route 788 (Relocated IL Rte3) Project ACF-0788(005) Section 520-1-2B St.Clair County Contract No. 76F69 Item No. 85, January 18, 2013 Letting Addendum A

# NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

- 1. Replaced the Schedule of Prices.
- 2. Revised sheets 3, 4, 7, 8, 9, 28, 32, and 58 of the Plans.
- 3. Revised page ii of the Table of Contents to the Special Provisions.
- 4. Added pages 163-170 to the Special Provisions.

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P. E. Acting Engineer of Design and Environment

Tette abechlyon A.E.

By: Ted B. Walschleger, P. E. Engineer of Project Management

cc: Jeffrey Keirn, Region 5, District 8; Mike Renner; D.Carl Puzey; Estimates

DB/ks

C-98-067-12 State Job # -

County Name -

Code -

ST CLAIR- -

163 - -

Project Number	
ACF-0788/005/	

Route

FAP 788

District -8 - - \* REVISED: JANUARY 4, 2013

Section Number - 520-1-2B

Item		Unit of					
Number	Pay Item Description	Measure	Quantity	х	Unit Price	=	Total Price
X0324045	SED CON STAB CON EN R	EACH	1.000				
X0324775	SED CON STAB CON EN M	SQ YD	170.000				
X0325833	WICK DRAINS	FOOT	23,384.000				
*ADD X0327545	SOIL SAMPLE & TESTING	EACH	10.000				
X2010507	CLEARING SPECIAL	ACRE	4.100				
X2020410	EARTH EXCAVATION SPL	CU YD	100.000				
X2070304	POROUS GRAN EMB SPEC	CU YD	334.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
Z0013796	SED CON STAB CONST EN	SQ YD	170.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0018800	DRAINAGE SYSTEM	L SUM	1.000				
Z0028462	GEOTEX RETAIN WALL	SQ FT	2,001.000				
Z0046304	P UNDR FOR STRUCT 4	FOOT	314.000				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
Z0056100	SAND DRAINAGE BLANKET	CU YD	1,500.000				

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C-98-067-12 State Job # -

ST CLAIR- -

163 - -

**Project Number** 

ACF-0788/005/

Route

FAP 788

District -8 - -Section Number -520-1-2B

County Name -

Code -

\* REVISED: JANUARY 4, 2013

l Nu	tem Imber	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
	Z0076600	TRAINEES	HOUR	1,500.000		0.800		1,200.000
	Z0076604	TRAINEES TPG	HOUR	1,500.000		10.000		15,000.000
	20200100	EARTH EXCAVATION	CU YD	10,397.000				
*REV	20201200	REM & DISP UNS MATL	CU YD	2,729.000				
*ADD	20400800	FURNISHED EXCAVATION	CU YD	1,706.000				
*REV	21000310	GRAN EMBANK SPEC	CU YD	975.000				
	21301060	EXPLOR TRENCH 60	FOOT	800.000				
	25000210	SEEDING CL 2A	ACRE	0.200				
	25000305	SEEDING CL 3A	ACRE	2.400				
	25000314	SEEDING CL 4B	ACRE	0.100				
	25000400	NITROGEN FERT NUTR	POUND	243.000				
	25000500	PHOSPHORUS FERT NUTR	POUND	243.000				
	25000600	POTASSIUM FERT NUTR	POUND	243.000				
	25000700	AGR GROUND LIMESTONE	TON	6.000				
	25100115	MULCH METHOD 2	ACRE	0.300				

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ACF-0788/005/

Route

FAP 788

District -8 - -

County Name -

Code -

\* REVISED: JANUARY 4, 2013

Section Number -520-1-2B

lte Nun	em nber	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	_	Total Price
	05400000				~	Onici noc	—	
	25100630	EROSION CONTR BLANKET	SQYD	9,560.000				
	25100635	HD EROS CONTR BLANKET	SQ YD	2,340.000				
	28000250	TEMP EROS CONTR SEED	POUND	1,200.000				
	28000305	TEMP DITCH CHECKS	FOOT	144.000				
	28000400	PERIMETER EROS BAR	FOOT	230.000				
	28000500	INLET & PIPE PROTECT	EACH	2.000				
	28100707	STONE DUMP RIP CL A4	SQ YD	76.000				
	28200200	FILTER FABRIC	SQ YD	76.000				
	28500100	FAB FORM CONC REV MAT	SQ YD	328.000				
*ADD	31001500	LIME	TON	304.000				
	40201000	AGGREGATE-TEMP ACCESS	τον	65.000				
	50200100	STRUCTURE EXCAVATION	CU YD	414.000				
	50300225	CONC STRUCT	CU YD	131.200				
	50300255	CONC SUP-STR	CU YD	605.800				
	50300260	BR DECK GROOVING	SQ YD	978.000				

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**Project Number** ACF-0788/005/

Route

FAP 788

County Name -ST CLAIR- -Code -163 - -District -8 - -

\* REVISED: JANUARY 4, 2013

Section Number -520-1-2B

ltem Number	Pay Itom Decorintion	Unit of	Quantity	v	Unit Prico	_	Total Price
NUMBER	Pay item Description	wieasure	Quantity	X	Unit Price	=	
50300300	PROTECTIVE COAT	SQ YD	1,426.000				
50500105	F & E STRUCT STEEL	L SUM	1.000				
50500505	STUD SHEAR CONNECTORS	EACH	3,906.000				
50800205	REINF BARS, EPOXY CTD	POUND	138,610.000				
50800515	BAR SPLICERS	EACH	174.000				
51200959	FUR M S PILE 14X0.312	FOOT	2,028.000				
51202305	DRIVING PILES	FOOT	2,028.000				
51203200	TEST PILE MET SHELLS	EACH	4.000				
51500100	NAME PLATES	EACH	2.000				
52100520	ANCHOR BOLTS 1	EACH	56.000				
542A0235	P CUL CL A 1 30	FOOT	82.000				
5421D015	P CUL CL D 1 15 TEMP	FOOT	40.000				
54213450	END SECTIONS 15	EACH	2.000				
54213675	PRC FLAR END SEC 30	EACH	2.000				
59100100	GEOCOMPOSITE WALL DR	SQ YD	174.000				

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C-98-067-12 State Job # -

Project Number	Route	
ACF-0788/005/	FAP 788	;

County Name -ST CLAIR- -Code -163 - -District -8 - -

520-1-2B

Section Number -

\* REVISED: JANUARY 4, 2013

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60100060	CONC HDWL FOR P DRAIN	EACH	12.000				
60107700	PIPE UNDERDRAINS 6	FOOT	112.000				
6660010	FUR ERECT ROW MARKERS	EACH	7.000				
*ADD 66900200	NON SPL WASTE DISPOSL	CU YD	316.000				
*ADD 66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
*ADD 66900530	SOIL DISPOSAL ANALY	EACH	1.000				
67100100	MOBILIZATION	L SUM	1.000				

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	Project ACF-0788(005)
	Section 520-1-2B
	Contract No. 76F69
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CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)	
DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)	
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PAYMENTS TO SUBCONTRACTORS (BDE)	
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REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)	
SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)	
TEMPORARY EROSION AND SEDIMENT CONTROL (BDE)	
TRACKING THE USE OF PESTICIDES (BDE)	
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Revised 1/9/2013

### DRAINAGE SYSTEM

Effective : June 10, 1994 Revised: January 1, 2007

<u>Description.</u> This work shall consist of furnishing and installing a bridge drainage system as shown on the plans, including all piping, fittings, support brackets, inserts, bolts, and splash blocks when specified.

<u>Material.</u> The pipe and fittings shall be reinforced fiberglass according to ASTM D 2996 RTRP with a 30,000 psi (207 MPa) minimum short-time rupture strength hoop tensile stress. The reinforced fiberglass shall also have an apparent stiffness factor at 5 percent deflection exceeding 200 cu in.-Ibf/sq. in. (22.6 cu mm-kPa) and a minimum wall thickness of 0.10 in. (2.54 mm). All pipe supports and associated hardware shall be hot dip galvanized according to AASHTO M 232 (M 232M). The fiberglass pipe and fittings furnished shall be pigmented through out, or have a resin-rich pigmented exterior coat, specifically designed for overcoating fiberglass, as recommended by the manufacturer. The color shall be as specified by the Engineer. The resin in either case shall have an ultraviolet absorber designed to prevent ultraviolet degradation. The supplier shall certify the material supplied meets or exceeds these requirements.

<u>Design.</u> The drainage system shall be designed as an open system with allowances for the differential expansion and contraction expected between the superstructure and the substructure to which the drainage system is attached.

Installation. All connections of pipes and fittings shown on the plans to facilitate future removal for maintenance cleanout or flushing shall be made with a threaded, gasketed coupler or a bolted gasketed flange system. Adhesive bonded joints will be permitted for runs of pipe between such connections. The end run connection shall feature a minimum nominal 6 in. (150 mm) female threaded fiberglass outlet. Straight runs may utilize a 45 degree reducing saddle bonded to the pipe. The female outlet shall be filled with a male threaded PVC plug.

Runs of pipe shall be supported at spacings not exceeding those recommended by the manufacturer of the pipe. Supports that have point contact or narrow supporting areas shall be avoided. Standard slings, clamps, clevis hangers and shoe supports designed for use with steel pipe may be used. A minimum strap width for hangers shall be 1 1/2 in. (40 mm) for all pipe under 12 in. (300 mm) in diameter and 2 in. (50 mm) for diameters 12 in. (300 mm) or greater. Straps shall have 120 degrees of contact with the pipe. Pipes supported on less than 120 degrees of contact shall have a split fiberglass pipe protective sleeve bonded in place with adhesive.

All reinforced fiberglass pipe, fittings, and expansion joints shall be handled and installed according to guidelines and procedures recommended by the manufacturer or supplier of the material.

Basis of Payment. This work will be paid for at the contract lump sum price for DRAINAGE SYSTEM.

Revised: May 18, 2011

**Description.** This work shall consist of the surface preparation and painting of existing steel structures in areas that will be in contact with new steel.

The existing steel at primary connections (faying surfaces) shall be prepared, and primed as specified herein prior to connecting new structural steel to the existing structure.

The existing steel at secondary connections shall be prepared, and if bare metal is exposed, primed as specified herein prior to connecting new structural steel to the existing structure.

**General.** The existing coatings shall be assumed to contain lead and may also contain other toxic metals. Any plans that may be furnished for the work, and any dimensions or other information given regarding a structure, are only for the purpose of assisting bidders in determining the type and location of steel to be cleaned and painted. It is the responsibility of the Contractor to verify this information and the accuracy of the information provided shall in no way affect the price bid for structural steel.

<u>Materials.</u> The Bureau of Materials and Physical Research has established a list of all products that have met preliminary requirements. Each batch of material must be tested and approved before use.

The paint materials shall meet the requirements of the following articles of the Standard Specification:

lte	<u>m</u>	<u>Article</u>
a)	Organic Zinc Rich Primer	1008.05
b)	Aluminum Epoxy Mastic	1008.03

### Submittals:

- a) Manufacturer's application instructions and product data sheets. Copies of the paint manufacturer's application instructions and product data sheets shall be furnished to the Engineer at the field site before steel cleaning begins.
- b) Waste Management Plan. The Waste Management Plan shall address all aspects of waste handling, storage, testing, hauling and disposal. Include the names, addresses, and a contact person for the proposed licensed waste haulers and disposal facilities. Submit the name and qualifications of the laboratory proposed for Toxicity Characteristic Leaching Procedure (TCLP) analysis.
- c) Quality Control (QC) Program. The QC Program shall identify the following; the instrumentation that will be used, a schedule of required measurements and observations, procedures for correcting unacceptable work, and procedures for improving surface preparation and painting quality as a result of quality control findings.

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**Construction Requirements.** The Contractor shall perform first line, in process QC inspections. The Contractor shall implement the submitted and accepted QC Program to insure that the work accomplished complies with these specifications. The designated Quality Control inspector shall be onsite full time during any operations that affect the quality of the coating system (e.g., surface preparation, coating mixing and application, and evaluations between coats and upon completion of the work). The Contractor shall provide artificial lighting in areas where natural light is inadequate, as determined by the Engineer, to allow proper cleaning, inspection, and painting. Illumination for inspection shall be at least 30 foot candles (325 LUX). Illumination for cleaning and priming, including the working platforms, access, and entryways shall be at least 20 foot candles (215 LUX).

The Contractor shall be responsible for any damage caused to persons, vehicles, or property, except as indemnified by the Response Action Contractor Indemnification Act. Whenever the intended purposes of the protective devices are not being accomplished, as determined by the Engineer, work shall be immediately suspended until corrections are made. Painted surfaces damaged by any Contractor's operation shall be removed and repainted, as directed by the Engineer, at the Contractor's expense.

<u>Weather Conditions</u>. Surfaces to be primed after cleaning shall remain free of moisture and other contaminants. The Contractor shall control his/her operations to insure that dust, dirt, or moisture does not come in contact with surfaces cleaned prior to painting. Surfaces painted shall be protected until the coating is sufficiently cured to protect itself from damage.

Restrictions on ambient conditions shall be as per the coating manufacturer's written specifications.

**Surface Preparation:** Prior to making connections or painting, all loose abrasives, paint, and residue shall be contained, collected, removed from the surface area and properly disposed of as specified later in this specification.

<u>Soluble Salt Remediation</u>. The Contractor shall implement surface preparation procedures and processes that will remove chloride from the surfaces. Surfaces that may be contaminated with chloride include, but are not limited to, expansion joints and all areas that are subject to roadway splash or runoff such as fascia beams and stringers.

Methods of chloride removal may include, but are not limited to, steam cleaning or pressure washing with or without the addition of a chemical soluble salt remover as approved by the coating manufacturer, and scrubbing before or after initial paint removal. The Contractor may also elect to clean the steel and allow it to rust overnight followed by recleaning, or by utilizing blends of fine and coarse abrasives during blast cleaning, wet abrasive/water jetting methods of preparation, or combinations of the above. If steam or water cleaning methods of chloride removal are utilized over surfaces where the coating has been completely removed, and the water does not contact any lead containing coatings, the water does not have to be collected. The Contractor shall provide the proposed procedures for chloride remediation in the Surface Preparation/Painting Plan.

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Upon completion of the chloride remediation steps, the Contractor shall use cell methods of field chloride extraction and test procedures (e.g., silver dichromate) accepted by the Engineer, to test representative surfaces that were previously rusted (e.g., pitted steel) for the presence of remaining chlorides. Remaining chloride levels shall be no greater than  $7\mu g/sq$  cm as read directly from the surface without any multiplier applied to the results. The testing must be performed, and the results must be acceptable, prior to painting each day.

A minimum of 5 tests per 1000 sq. ft. (93 sq m) or fraction thereof completed in a given day, shall be conducted at project start up. If results greater than 7  $\mu$ g/sq cm are detected, the surfaces shall be recleaned and retested at the same frequency. If acceptable results are achieved on three consecutive days in which testing is conducted, the test frequency may be reduced to 1 test per 1000 sq. ft. (93 sq. m) prepared each day provided the chloride remediation process remains unchanged. If unacceptable results are encountered, or the methods of chloride remediation are changed, the Contractor shall resume testing at a frequency of 5 tests per 1000 sq. ft. (93 sq. m).

Following successful chloride testing the chloride test areas shall be cleaned as specified below.

Painted surfaces of new steel damaged by abrasive blasting or by the Contractor's operations shall be repainted, as directed by the Engineer, at the Contractor's expense.

a) Primary Connections. Primary connections shall be defined as faying (contact) surfaces of high-strength bolted splices in main, load-carrying members, end diaphragms, end crossframes, and other areas specifically noted in plans (such as cross-frame connections on curved girders, etc.). These will typically occur where existing splices are replaced or new splices are added.

The surfaces of existing steel in all areas that will be in direct contact with new steel shall be prepared according to SSPC-SP15, Commercial Grade Power Tool Cleaning using vacuumshrouded power tools equipped with HEPA filtration. The surface preparation shall remove all rust, mill scale, and existing paint from the contact surface. At the Contractors option, vacuum blast cleaning according to SSPC-SP6, Commercial Blast Cleaning may be substituted for SSPC-SP15 at no additional cost to the Department. The surface profile for primary connection surfaces shall be 1.5 to 3.5 mils (38 to 90 microns).

b) **Secondary Connections.** Secondary connections shall be defined as all surface areas of existing members that will be in contact with new steel except as previously defined as primary connections.

These surfaces of existing steel in all areas that will be in direct contact with new steel shall be prepared according to SSPC-SP3, Power Tool Cleaning using vacuum-shrouded power tools equipped with HEPA filtration. The surface preparation shall remove all loose rust, loose mill scale, and loose, checked, alligatored and peeling paint from the contact surface. At the Contractors option, vacuum blast cleaning according to SSPC-SP6, Commercial Blast Cleaning or SSPC-SP15, Commercial Grade Power Tool Cleaning may be substituted for SSPC-SP3 at no additional cost to the Department. The surface profile for abrasive blast cleaning and Commercial Grade Power Tool Cleaning shall be 1.5 to 3.5 mils (38 to 90 microns).

**Painting.** The manufacturer's written instructions shall be followed for paint storage, mixing, thinning, application, ambient conditions, and drying times between coats. The surface shall be free of dirt, dust, and debris prior to the application of any coat. The coatings shall be applied as a continuous film of uniform thickness free of defects including, but not limited to, runs, sags, overspray, dryspray, pinholes, voids, skips, misses, and shadow-through. Defects such as runs and sags shall be brushed out immediately during application.

The Engineer will approve surface preparation prior to priming.

- a) For Primary connections the surface of the prepared steel cleaned to bare metal shall be primed with an organic zinc rich primer between 3.5 and 5.0 mils (90 and 125 microns) dry film thickness.
- b) For Secondary Connections the surface of the prepared steel cleaned to bare metal shall be painted with one coat of epoxy mastic between 5 and 7 mils (125 microns to 180 microns) in thickness. Areas not cleaned to bare metal need not be painted.

The primer shall cure according to the manufacturers instructions prior to connecting new structural steel to the existing structure.

The surrounding coating at each prepared location shall be feathered for a minimum distance of 1 1/2 in. (40 mm) to achieve a smooth transition between the prepared areas and the existing coating.

<u>Collection, Temporary Storage, Transportation and Disposal of Waste.</u> The Contractor and the Department are considered to be co-generators of the waste.

The Contractor is responsible for all aspects of waste collection, testing and identification, handling, storage, transportation, and disposal according to these specifications and all applicable Federal, State, and Local regulations. The Contractor shall provide for Engineer review and acceptance a Waste Management Plan that addresses all aspects of waste handling, storage, and testing, and provides the names, addresses, and a contact person for the proposed licensed waste haulers and disposal facilities. The Department will not perform any functions relating to the waste other than provide EPA identification numbers, provide the Contractor with the emergency response information, the emergency response telephone number required to be provided on the manifest, and to sign the waste manifest. The Engineer will obtain the identification numbers from the state and federal environmental protection agencies for the bridge(s) to be painted and furnish those to the Contractor.

All surface preparation/paint residues shall be collected daily and deposited in all-weather containers supplied by the Contractor as temporary storage. The storage area shall be secure to prevent unauthorized entry or tampering with the containers. Acceptable measures include storage within a fully enclosed (e.g., fenced in) and locked area, within a temporary building, or implementing other reasonable means to reduce the possibility of vandalism or exposure of the waste to the public or the environment (e.g., securing the lids or covers of waste containers and roll-off boxes). Waste shall not be stored outside of the containers. Waste shall be collected and transferred to bulk containers taking extra precautions as necessary to prevent the suspension of residues in air or contamination of surrounding surfaces. Precautions may include the transfer of the material within a tarpaulin enclosure. Transfer into roll-off boxes shall be planned to minimize the need for workers to enter the roll-off box.

No residues shall remain on uncontained surfaces overnight. Waste materials shall not be removed through floor drains or by throwing them over the side of the bridge. Flammable materials shall not be stored around or under any bridge structures.

The all-weather containers shall meet the requirements for the transportation of hazardous materials and as approved by the Department. Acceptable containers include covered roll-off boxes and 55-gallon drums (17H). The Contractor shall insure that no breaks and no deterioration of these containers occurs and shall maintain a written log of weekly inspections of the condition of the containers. A copy of the log shall be furnished to the Engineer upon request. The containers shall be kept closed and sealed from moisture except during the addition of waste. Each container shall be permanently identified with the date that waste was placed into the container, contract number, hazardous waste name and ID number, and other information required by the IEPA.

The Contractor shall have each waste stream sampled for each project and tested by TCLP and according to EPA and disposal company requirements. The Engineer shall be notified in advance when the samples will be collected. The samples shall be collected and shipped for testing within the first week of the project, with the results due back to the Engineer within 10 days. The costs of testing shall be considered included in this work. Copies of the test results shall be provided to the Engineer prior to shipping the waste.

The existing paint removed, together with the surface preparation media (e.g. abrasive) shall be handled as a hazardous waste, regardless of the TCLP results. The waste shall be transported by a licensed hazardous waste transporter, treated by an IEPA permitted treatment facility to a non-hazardous special waste and disposed of at an IEPA permitted disposal facility in Illinois.

The treatment/disposal facilities shall be approved by the Engineer, and shall hold an IEPA permit for waste disposal and waste stream authorization for this cleaning residue. The IEPA permit and waste stream authorization must be obtained prior to beginning cleaning, except that if necessary, limited paint removal will be permitted in order to obtain samples of the waste for the disposal facilities. The waste shall be shipped to the facility within 90 days of the first accumulation of the waste in the containers. When permitted by the Engineer, waste from multiple bridges in the same contract may be transported by the Contractor to a central waste storage location(s) approved by the Engineer in order to consolidate the material for pick up, and to minimize the storage of waste containers at multiple remote sites after demobilization. Arrangements for the final waste pickup shall be made with the waste hauler by the time blast cleaning operations are completed or as required to meet the 90 day limit stated above.

The Contractor shall submit a waste accumulation inventory table to the Engineer no later than the 5<sup>th</sup> day of the month. The table shall show the number and size of waste containers filled each day in the preceding month and the amount of waste shipped that month, including the dates of shipments.

The Contractor shall prepare a manifest supplied by the IEPA for off-site treatment and disposal before transporting the hazardous waste off-site. The Contractor shall prepare a land ban notification for the waste to be furnished to the disposal facility. The Contractor shall obtain the handwritten signature of the initial transporter and date of the acceptance of the manifest. The Contractor shall send one copy of the manifest to the IEPA within two working days of transporting the waste off-site. The Contractor shall furnish the generator copy of the manifest and a copy of the land ban notification to the Engineer. The Contractor shall give the transporter the remaining copies of the manifest.

All other project waste shall be removed from the site according to Federal, State and Local regulations, with all waste removed from the site prior to final Contractor demobilization.

The Contractor shall make arrangements to have other hazardous waste, which he/she generates, such as used paint solvent, transported to the Contractor's facility at the end of each day that this waste is generated. These hazardous wastes shall be manifested using the Contractor's own generator number to a treatment or disposal facility from the Contractor's facility. The Contractor shall not combine solvents or other wastes with cleaning residue wastes. All waste streams shall be stored in separate containers.

The Contractor is responsible for the payment of any fines and undertaking any clean up activities mandated by State or federal environmental agencies for improper waste handling, storage, transportation, or disposal.

Contractor personnel shall be trained in the proper handling of hazardous waste, and the necessary notification and clean up requirements in the event of a spill. The Contractor shall maintain a copy of the personnel training records at each bridge site.

It is understood and agreed that the cost of all work outlined above, unless otherwise specified, has been included in the bid, and no extra compensation will be allowed.

<u>Basis of Payment:</u> This work will be considered included in the cost of "Furnishing and Erecting Structural Steel", "Erecting Structural Steel", or "Structural Steel Repair", as applicable, according to the Standard Specifications, unless otherwise specified on the plans.

# REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

This work shall consist of removing and disposing of material which is not suitable to be incorporated into the proposed embankment for the project. This material is generally located in the left ditch excavation between Station 624+50 to 630+50. The exact location and amount of material will be more accurately defined after completing soil sampling and testing. The unsuitable material so removed from the site shall be disposed of in accordance with article 202.03 of the Standard Specifications. This work shall not proceed until the Engineer has reviewed and approved the soil sample test results provided by the Contractor under Soil Sampling and Testing.

This work shall be measured in its original location and the volume computed in Cubic Yards. This work shall be paid for at the unit price per Cubic Yard for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL in accordance with Section 202 of the Standard Specifications.

### LIME

This work shall consist of furnishing, placing and disking Lime into the proposed embankment for the project. All work shall be performed in accordance with Sections 205 & 310 of the Standard Specifications except that water shall not be added to the mixture unless needed and processing the mixture shall not be paid for separately. Mixing the lime into the embankment may be performed by processing the lime or by disking each lift of embankment by making a minimum of four disk passes or to the satisfaction of the Resident Engineer. No separate payment shall be made for processing or disking the lime into the embankment material. This work is intended to reduce the moisture content of the fill material. Lime for this work is projected to be 3% by weight of the embankment material and shall be adjusted per the soil tests taken in the field prior to this work proceeding. Test results must be reviewed and approved by the Resident Engineer prior to proceeding with this work. This work shall be measured in weight of Tons of LIME used and paid for at the unit price per TON of LIME used in the work including all disking or processing to adequately incorporate the LIME into the embankment.

## SOIL SAMPLING AND TESTING

This work shall consist of obtaining soil samples at onsite locations of proposed earth excavation and having an independent laboratory test the samples for suitability for use in embankment construction. Preliminary soil tests have indicated that approximately 35% of the proposed earth excavation material may potentially be unsuitable for embankment. This soil sampling and testing is in addition to and does not replace any testing requirements for the Special Waste Plans and Reports or the Soil Disposal Analysis. Samples shall be taken at even stations from 623+00 to 632+00 along the left ditch line near the flowline of the proposed ditch or as directed by the Engineer. A minimum of forty pounds of soil is assumed to be required for testing but should be verified with the independent testing laboratory selected to perform the Tests to be performed on the soil samples obtained shall include the following: testina. Standard Proctor Test AASHTO T99; Organic Content Test AASHTO T194; Grain Size with Hydrometer AASHTO T88, Atterberg Limits AASHTO T89 & T90. All test results shall be provided the Engineer for approval prior moving soil. to to any insitu

This work shall be measured on an EACH basis for every soil sample obtained and tested. This work shall be paid at the unit price per EACH for SOIL SAMPLING AND TESTING.