A d d e n d u m

Iowa Department of Transportation
Office of Contracts

Date of Letting: May 21, 2013
Date of Addendum: May 8, 2013

B.O.	Proposal ID	Proposal Work Type	County	Project Number	Addendum
113	78-0801-367	PCC PAVEMENT - GRADE & REPLACE	POTTAWATTAMIE	IM-NHS-080-1(309)2--03-78 IM-NHS-080-1(367)2--03-78 IM-NHS-080-1(368)2--03-78 IM-NHS-080-1(369)2--03-78	21MAY113.A03

Notice: Only the bid proposal holders receive this addendum and responsibility for notifying any potential subcontractors or suppliers remains with the proposal holder.

Make the following changes to the PROPOSAL SCHEDULE OF PRICES:

Change Proposal Line No. 0480 2301-1004115 STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, QM-C, CLASS 3I DURABILITY, 11.5 IN.:
From: 59,805.900 SY
To: 61,367.000 SY

Change Proposal Line No. 0500 2301-9090000 QUALITY MANAGEMENT - CONCRETE (QM-C):
From: 21,673.900 CY
To: 22,172.600 CY

Change Proposal Line No. 0510 2304-0100000 DETOUR PAVEMENT:
From: 12,798.000 SY
To: 12,276.000 SY

Change Proposal Line No. 1040 2511-0310100 SPECIAL COMPACTION OF SUBGRADE FOR RECREATIONAL TRAIL:
From: 714.930 STA
To: 7.150 STA

Change Proposal Line No. 1050 2513-0001020 CONCRETE BARRIER, BA-102:
From: 6,695.400 LF
To: 6,968.400 LF

Change Proposal Line No. 1210 2599-9999009 (‘LINEAR FEET’ ITEM) 18-INCH RIGID INCLUSION:
From: 48,300.000 LF
To: 43,180.000 LF

Add Proposal Line No. 1402 2503-0116229 STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE ARCH PIPE (RCAP), 2000D (CLASS A-III), 29 IN. X 18 IN.; 509.000 LF

If the above changes are not made, they will be made as shown here.

Make the following change to the PROPOSAL:

Replace:	SP-120054	May 21, 2013
With:	SP-120054a	May 21, 2013

SP-120054a is attached

Make the following change to plan set IM-NHS-080-1(309)2--03-78:

Sheet Number 2, Item Code 2402-2720000, Excavation, Class 20, add the following to the Estimate Reference Information:

This bid item includes the additional cost of excavation and back filling as described in the Special Provision for Excavation for Structures in Levee Critical Area.

Make the following changes to plan set IM-NHS-080-1(367)2--03-78:

Plan Sheet B.6, Typical “Detour 254”:

Change the HMA Thickness:
From: 13 Inches
To: 12 Inches

Plan Sheet B.7, Typical “Detour 291”:

Change the HMA Thickness:
From: 13 Inches
To: 12 Inches

Plan Sheet C.8, Tabulation 100-24:

For Road Identification ML I-29 NB Median change the width:
From: 8.0 FT
To: 10.0 FT

Plan Sheet C.14:

Replace Tabulation 108-18 with attached Tabulation 108-18.

Plan Sheet Q.23:

Replace plan sheet Q.23 with attached plan sheet Q.23.

Iowa Department of Transportation

SPECIAL PROVISIONS
FOR
EXCAVATION FOR STRUCTURES IN LEVEE CRITICAL AREA

Pottawattamie County
IM-NHS-80-1(309)2--03-78
IM-NHS-80-1(369)2--03-78

Effective Date
May 21, 2013

THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

120054a.01 DESCRIPTION.
The work under this contract is located adjacent to federally constructed levees along the Indian Creek and Missouri River. As such, no improvement shall be passed over, under, or through the levees, improved channels or floodways, nor shall any excavation or construction be permitted within the limits of the levees other than the construction under this contract and these special provisions without prior approval of the U.S. Army Corps of Engineers (USACE). The limits of the levee critical area are 300 feet riverward and 500 feet landward of the levee. The following foundation elements fall within these limits:

- West and East Abutment
- Pier Nos. 1 and 2
- Sign Foundation Removal
- Sign Foundations

120054a.02 WORK ZONE REQUIREMENTS.
Areas within these limits disturbed by excavation, sheet piles, other intrusions or disturbances of the soil shall be restored as described in this special provision. Any construction within the levee critical area limits that is not directly related to the construction of the abutments, piers and foundations noted above shall not commence without prior approval of the Engineer and the USACE.

120054a.03 CONSTRUCTION.

A. General.

1. Open excavation shall consist of 3 Horizontal:1 Vertical side for abutments and 2 Horizontal:1 Vertical side for all other construction.

2. Excavated soils shall be sorted by soil type, classified and stockpiled.

3. The sand backfill shall be placed in the excavation as it was encountered in the initial excavation.

4. The clay backfill shall be placed in the excavation as it was encountered in the initial excavation.

B. Abutment Construction.

Abutments shall be constructed within the levee section as per the contract documents. Excavations for construction of the abutments shall be by open excavation to the limits as per the contract documents. As such, no excavation or penetration of the existing ground beyond the limits as per the contract documents will be permitted with the exception of the abutment piling. Excavations for the east abutment construction shall not commence until the temporary impervious levee has been constructed and approved.

C. Pier Foundation Construction.

Piers shall be constructed within the levee critical area as per the contract documents. Excavations for construction of the piers shall be by open excavation to the limits as per the contract documents. As such, no excavation or penetration of the existing ground beyond the limits as per the contract documents will be permitted with the exception of the piling.

D. Sign Foundation Removal.

Existing sign foundations are located within the levee critical area. Excavations for removal of the foundations shall be by open excavation to the limits of removal as per the contract documents. As such, no excavation or penetration of the existing ground will be permitted beyond the limits as per the contract documents.

E. Sign Foundation Construction.

Sign foundations shall be constructed within the levee critical area as per the contract documents. Excavations for construction of the foundations shall be by open excavation to the limits as per the contract documents. As such, no excavation or penetration of the existing ground beyond the limits as per the contract documents will be permitted with the exception of the foundation piling (if needed).

F. Materials.

1. Lean or fat clay shall consist of cohesive materials having at least 50% passing the U.S. Standard 200 mesh sieve size. Cohesive materials include materials classifying as fat (or lean) clay (CL,CH), having a Plasticity Index of 10 or greater, and falling between the “U” line and the “A” line on Figure 3 in ASTM D 2487 – Standard Tests for Classifications of Soils for Engineering Purposes. Lean clay (CL) shall have a Liquid Limit less than 50.

2. Moisture and density control of the embankments shall be based on the standard Proctor compaction test (Materials I.M. 309). Cohesive materials shall be compacted to a density of at least 95% of the maximum dry density and be within -1 to +4% of the optimum moisture content at the time of compactive effort is applied which may require the addition of water or aeration of materials. Non-cohesive materials will be placed in a moist condition and compacted with approved equipment to a density of at least 95% of the maximum dry density. Sampling and testing of borrow shall be in accordance with Materials I.M. 204.

G. Quality Control Program

Contractor shall provide and maintain a Quality Control Program, defined as all activities of sampling, testing, process control inspection, and necessary adjustments for construction of footing backfill to meet the requirements of this Special Provision.

Ensure the Quality Control Technician is present on the project when backfill is being placed with 'Compaction with Moisture and Density Control.'

Provide a laboratory facility and all the necessary calibrated equipment to perform the required tests.

Test for proctor optimum moisture content and maximum density and backfill moisture content and density at the minimum frequencies in Materials I.M. 204 for roadway and borrow excavation and embankments. Samples will be randomly selected.

Document all observations, records and inspection, changes in soil type, soil moisture, fill placement procedures, and test results on a weekly basis. Note the results of the observations and records of inspection in a permanent field record as they occur. Submit copies of field moisture and density tests to the Engineer on a weekly basis. Submit the original testing records (raw field and lab data sheets) and control charts to the Engineer in a neat and orderly manner within 5 calendar days after completion of the project.

H. Quality Assurance.

1. Required Testing.

The Contractor's Quality Control Technician shall perform all field testing and data analysis. The Quality Control Technician shall retain split samples of Materials I.M. 309 testing when requested by the Engineer. The Engineer may select any or all of the Contractor-retained split samples for independent assurance and verification testing.

The Engineer will determine the random location of verification tests and will test at the minimum frequencies in Materials I.M. 204 for roadway and borrow excavation and embankments. The Contractor Quality Control Technician shall obtain a sample at the same location as directed by the Engineer and provide the results to the Engineer. Verification test results will be provided to the Contractor within one working day after the Contractor's quality control test results have been reported.

The Engineer will periodically witness field testing being performed by the Contractor. If the Engineer observes the quality control field tests are not being performed according to the applicable test procedures, the Engineer may stop production until corrective action is taken. The Engineer will notify the Contractor of observed deficiencies, promptly, both verbally and in writing. The Engineer will document all witnessed testing.

2. Verification and Independent Assurance Testing.

The Contractor's quality control test results will be validated by the Engineer's verification test results using the criteria in Materials I.M. 216. If the Engineer's verification test results validate the Contractor's test results, the Contractor's results will be used for material acceptance.

In the event that the Contractor's results can't be validated, the Engineer will investigate the reason immediately. The Engineer's investigation may include:

- Testing of other locations,
- Observations of the Contractor's testing procedures and equipment, and
- Comparison of test results of the Contractor with those of the Engineer.

Personnel and laboratories performing tests used in the acceptance of material shall participate in the independent assurance program covered in Materials I.M. 205.

3. Referee Testing.
If a difference in procedures for sampling and testing and/or test results exists between the Contractor and the Engineer which they cannot resolve, the Iowa DOT's Central Materials Laboratory will provide referee testing. The Engineer and the Contractor will abide by the results of the referee testing.

I. Acceptance.
The Engineer will base final acceptance of tests and materials on the results of the Contractor's quality control testing as verified by the Engineer's quality assurance.

120054a.04 METHOD OF MEASUREMENT.
Measurement will be as specified in the bid item ~~Excavate and Dewater~~ Excavation, Class 20.

120054a.05 BASIS OF PAYMENT.

A. All work as described above is included in the bid item ~~Excavate and Dewater~~ Excavation, Class 20.

B. Payment is full compensation for furnishing a Quality Control Technician, sampling and testing, process control inspection, working of drying material, furnishing and applying water, controlling moisture content of the materials, and compacting the materials to the required density, as specified.

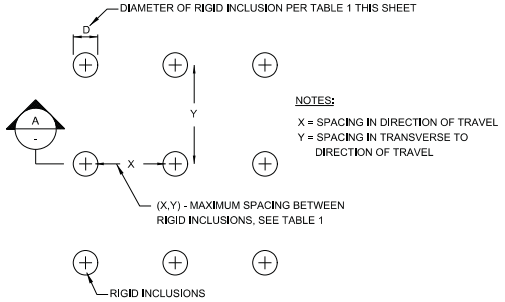
CONCRETE BARRIER

See BA-100, BA-101, BA-102, BA-103

108-18
10-18-11

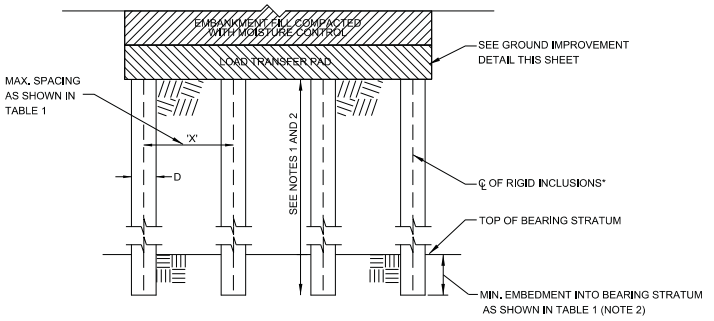
No.	Begin Station	End Station	Side	Barrier Type		Transition Section		Footing	Remarks	Expansion Joints		
				Standard Road Plan	Length	Detail Sheet	Ⓛ	Length		Station	Side	Remarks
1	7448+07	7515+06	LT	BA-102	6695.4					7514+46	LT	BRIDGE APPROACH
										7515+06	LT	BRIDGE
2	7517+63	7520+00	LT	BA-102	273					7517+63	LT	BRIDGE
										7518+23	LT	BRIDGE APPROACH

ABBREVIATIONS:
CMC = CONTROLLED MODULUS COLUMN
VCC = VIBRO CONCRETE COLUMN
APGD = AUGER PRESSURE GROUTED DISPLACEMENT PILES



PLAN

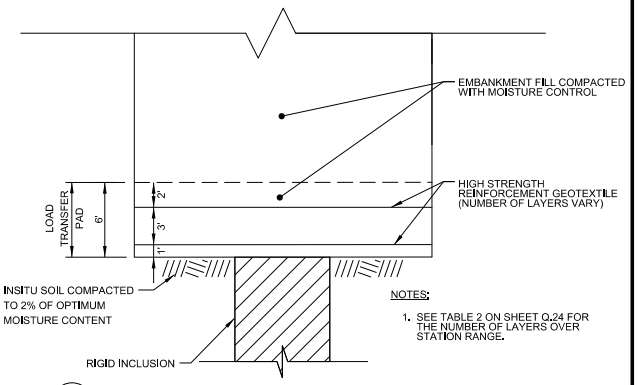
1 TYPICAL GROUND IMPROVEMENT LAYOUT
NTS



NOTES:
1. SEE TABLE 1 FOR ESTIMATED TIP ELEVATIONS OF RIGID INCLUSIONS
2. INSTALLATION CRITERIA AND ESTIMATED TIP ELEVATION FOR RIGID INCLUSIONS SHALL BE ESTABLISHED BY IDOT BASED ON INSTALLATION AND RESULTS OF LOAD TESTS ON TEST ELEMENTS.

* RIGID INCLUSIONS INCLUDE CMC/VCC/APGD

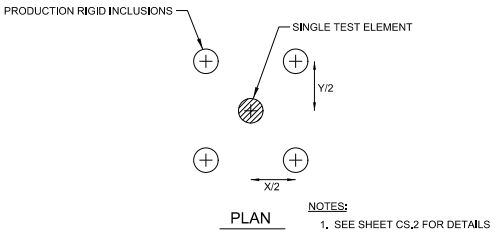
A SECTION A'-A'
NTS



NOTES:
1. SEE TABLE 2 ON SHEET Q.24 FOR THE NUMBER OF LAYERS OVER STATION RANGE.

2 GROUND IMPROVEMENT DETAIL
NTS

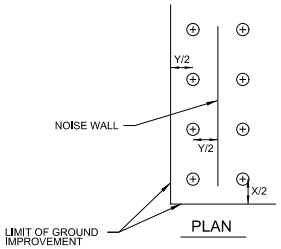
NOTES:
1. DETAIL FOR R.I. SPACING REFER TO TABLE 1



PLAN

NOTES:
1. SEE SHEET CS.2 FOR DETAILS

3 DETAIL FOR SINGLE TEST ELEMENT
NTS



PLAN

NOTES:
1. DETAIL FOR R.I. SPACING REFER TO TABLE 1

4 GRID SPACING DETAIL
NTS

GROUND IMPROVEMENT USING RIGID INCLUSIONS

1. Ground improvement comprising of rigid inclusions shall be installed as shown on the plans and in Table 1. The work shall be performed in accordance with the Special Provision for "Ground Improvement using Rigid Inclusions."
2. Before starting the ground improvement work, the grading contractor shall strip the existing ground of topsoil, organic matter, roots, etc. The topsoil shall be stockpiled for use in slope dressing for the embankment fill.
3. Ground Improvement shall not conflict with future foundations for the proposed Noise Wall. The Noise Wall is approximately located from station 7518+37 to station 7530+25 along mainline. This is shown in Detail No. 4. See sheet Q.21 for the noise wall location and coordinates.
4. The ground improvement installation shall commence only after the load testing and other requirements of the Special Provisions are met and after obtaining approval from the Iowa DOT Engineer.
5. The rigid inclusions shall be installed in accordance with the spacing and depth criteria shown in the typical drawings and details shown on Table 1.
6. After the ground improvement elements are installed, construction of the load transfer pad shall commence as shown on this sheet and Sheet Q.24 and described in the Special Provisions. Granular fill from the designated borrow shall be used for load transfer pad construction. The top of the granular fill, compacted with moisture control shall extend a minimum height of 2 feet over the last geotextile layer.
7. Approximately 21,140 cu.yds. of granular material is required for the load transfer pad for areas shown in Table 2 (entire project). This quantity includes 25% shrinkage.
8. The number of geotextile layers shown in the Table 2 are from base of the fill. The number of layers shall transition to a minimum of one geotextile layer placed at 1 ft from the base of the fill in the areas from the start of the grading to maximum height.
9. Approximately 19,000 sq./yds. of high strength reinforcement geotextile(needed for the load transfer pad). This quantity includes 10% for overlap. Specifications of the high strength reinforcement geotextiles are presented in the Special Provision for "Ground Improvement using Rigid Inclusions".
10. Wherever the new embankment construction abuts the existing embankment, the grading Contractor shall strip the topsoil from the foreslope of the existing embankment and stockpile it for slope dressing for the new fill.
11. For Rigid Inclusion that will be installed on top of existing slope, benching and/or filling to provide level surface to facilitate the installation will be required.

Table 1: Ground Improvement Using Rigid Inclusions

Alignment	Station Range		Rigid Inclusion Option	Minimum Diameter (in)	Design Load (kips)	Spacing		Estimated Embedment into Bearing Stratum (ft)	Estimated Tip Elevation (ft)	Estimated Number of Elements	Estimated Total Quantity (lf)
	From	To				"x" (ft)	"y" (ft)				
I-29 (West Abutment)	7510+09	7515+12	CMC/VCC/APGD	18	150	9	9	15	950	681	20,760
I-29 (East Abutment)	7517+57	7520+00	CMC/VCC/APGD	18	150	9	9	15	930	432	22,420

Note:
CMC = Controlled Modulus Columns
VCC = Vibro Concrete Comumns
APGD = Auger Pressure Grouted Displacement Pile
"x" = spacing in directionof travel
"y" = spacing transverse to direction of travel
See typical section and drawings

DETAILS FOR RIGID INCLUSIONS