

#### ROBERT G. CAMPBELL & ASSOCIATES, L.P.

7523 Taggart Lane Knoxville, TN 37938 (865) 947-5996 Fax (865) 947-7556

#### ADDENDUM #1

2540 Sand Pike Blvd., Suite 3 Pigeon Forge, TN 37863 (865) 366-2516 Fax (865) 947-7556

#### ISSUED FEBRUARY 18, 2019 FOR BIDDERS OF

#### NORRIS FREEWAY CONVENIENCE CENTER RGCA PROJECT NO. 18702 BID NO. 4928

The purpose of the subject Addendum No. 1 is to A) Revise the date and time for the Bid Opening, B) Make changes in the Contract Documents, C) Provide answers to questions that were not completely answered at the Pre-Bid Meeting, and D) Provide answers to questions that have been asked since the Pre-Bid Meeting.

#### **BID OPENING DATE**

The date and time of the bid opening is being revised to Monday, February 25, 2018 at 4:00 pm at the Anderson County Courthouse.

#### CONTRACT DOCUMENTS

1. Revised Bid Form C-410:

Deleted Item No. 203-02-02 Revised Item No. 701-02 (Heavy Duty Concrete) Added Item No. 701-01.02 (Normal Duty Concrete) Noted TDOT Performance Bond Amount

- 2. Revised Plan Sheets 11 & 13 regarding concrete pad details.
- 3. Added TDOT Standard Drawing S-GR31-1

#### Unanswered Questions

1. Drawing 13 shows details for the 4 – Bulk Compactor pads to which include turndown. Do these details apply to both the Oil Tank pad and the 14'x100' concrete pad? Are the turn-downs required for other concrete pads? Turn-downs will be required for the four (4) 15'x 55' bulk compactor pads and also for the 14'x 100' bulk compactor pad. The pad for the oil tank and charitable donations will not have turndowns.

- 2. The pad detail references that the skid plates are to be installed by others, is that correct? *No, see revised Plan Sheet 13.*
- 3. The Earth Moving Specification indicates that there will not be extra payment for solid rock excavation, however, the Bid Form includes a line item quantity of 500 CY for rock. The Bid Form has been revised to remove the line item quantity for rock. The grading plan was developed using the report of geotechnical exploration in efforts to avoid rock. However, rock could still be encountered, particularly in the pond excavation and trench excavations. If rock is found in the pond excavation, the volume could potentially be reduced, depending on the location. Also, plan changes could be made if feasible to avoid or reduce rock. Regardless, the contractor is to allow for rock in the unit price bid for unclassified excavation. All grading is to be done on site, with no off-site borrow or fill areas.
- 4. Will CUB be bringing the 3-phase power to the site as shown on the electrical plan? *It appears that 3-phase power is available at the site. This is being confirmed with Clinton Utilities Board (CUB) and will be further addressed in future Addendum #2.*
- 5. What class of PVC pipe is to be used for the sanitary sewer installations? *Sanitary sewer pipe is to be SDR26, and water is to be <sup>3</sup>/<sub>4</sub>*" *Type K copper.*
- 6. Does the time frame for completion of the project include the widening of Norris Freeway? Yes, it is assumed that the Base Bid for site construction and Alternate 1 for Norris Freeway Widening alternate will both be awarded with this contract and are to be completed within 180 days.
- 7. Can temporary traffic signals be used to establish one-way traffic on Norris Freeway during the widening? Automated flagging assistance devices would be permitted to supplement the flagging operation; however, traffic signals in lieu of flaggers for a temporary lane closure operation would not be permitted. The contractor will be responsible for getting approval from TDOT for any modifications to the traffic control plan.
- 8. Can the Sign-in Sheet be provided? *A copy of the Sign-in Sheet is provided as a part of this Addendum*
- 9. Can we verify the Contractors need to be licensed? The Contractor must be licensed in the State of Tennessee and have one or more of the Classifications listed (HRA-A, B, C, E, HC-5, MU-A, B, C, D). We have added to this Addendum a list from TN.gov website with each of the Classifications and their descriptions.
- 10. What is the Estimated Price for the Project? *The Estimated price of the project falls between \$500,000 to \$700,000*

- 11. Is the contractor or the owner responsible for 3<sup>rd</sup> party testing (soil compaction, concrete testing, etc.)? *The contractor will be responsible for 3<sup>rd</sup> party testing.*
- 12. The pay item for base stone, item 303-01, states a thickness of 8". Is the cost of the 6" of stone to be included in the concrete pavement item? *The 8" in Item 303-01 is for base stone for asphalt paving. Base stone for concrete will be either 6" or 8" for normal or heavy duty concrete, and is to be included in the bid price for concrete pads.*
- 13. The detail for the concrete pads on sheet 11 shows #4 rebar at 12" centers, is this both directions? *Yes, the #4 rebar is to be on 12" centers in both directions.*
- 14. The detail for the concrete compactor pads shows "picture framing" panels every 5', is this correct? *The detail on Sheet 11 has been revised to show a broom finish on all concrete pads, with score joints every 5 feet, and expansion joints every 15 feet.*
- 15. For the future building, do we pull wire to the future building or only run conduits? *The contractor is to run conduits and also pull wire for connection to the building.*
- 16. Are the general liability and umbrella liability insurance limits correct for Anderson County. Is professional liability insurance required? *The insurance requirements and other sections of the Supplemental Conditions have been revised. Professional liability insurance is not required.*
- 17. While several details are typical, there are details on drawing 11 for sidewalks, paving, and ramp at access parking. Do these apply to this project? *References to sidewalks have been removed as they are not included in this project. Typical details on Sheet 11 have been clarified.*
- 18. Regarding the guardrail surrounding the bulk waste concrete pad, is there an option to use a handrail in place of the guardrail. The guardrail is to surround the top of the bulk waste area, except for a 20-foot section where material will be dumped over. This section will have a handrail. The length of guardrail is 132 feet. See Sheet 9 & Sheet 13.
- 19. Please verify that the Service Riser on the new Utility Pole is 4" w/ 4- 400 MCM. *This will be answered under Addendum #2*.
- 20. Please clarify gear enclosures to be 3R, 4XSS or 12 SS. *This will be answered under Addendum #2*.

- 21. E1, Note #6: Please verify cable size. *This will be answered under Addendum #2*.
- 22. Will T-2's and material certs be required for this project? No.
- 23. Will all subcontractors working on the project need to be TDOT pre-qualified? Subcontractors conducting the work included in Alternate 1 for the Norris Freeway Widening need to be TDOT pre-qualified. Site work contractors on the Base Bid do not necessarily need TDOT pre-qualified.
- 24. Who is responsible for ACWA water tap fees? An allowance of \$900 should be included in the bid price for the water installation for the ACWA tap fee.
- 25. It was stated at the pre-bid meeting that the contractor will have to post a performance bond with TDOT. Where is that stated in the contract and what is the amount? This has been noted on the Bid Form Alternate 1, the amount is \$85,000.00
- 26. Regarding the "Required Bidder Qualification Statement with supporting data," an attachment to the Bid Form. Is there a specific form we need to use, or are we allowed to create our own? *Bidders should create their own bidder qualification statement*.
- 27. Are the bulk waste pad and the charitable donation/waste oil pad built to the same detail as the compactor pads as shown on Sheet 13? The four bulk waste compactor pads and bulk waste pad will be heavy duty concrete with turndowns. The charitable donation/waste oil pad will be normal duty concrete. This has been clarified on Sheets 11 & 13.
- 28. Is an as-built survey required? No, an as-built survey will not be required.

29. On drawing no. 13. The guard rail detail calls for spec no. of 705-06.01 w beam guardrail type 21. Can not find in the specs. Need information as to the size and species of wood on the horizontal wood beam and same for the wood post. If you could help me find. See TDOT Standard Drawing S-GR31-1 included with this Addendum.

END OF ADDENDUM

#### PRE-BID SIGN IN SHEET

<u>Anderson County Norris Freeway Convenience Center</u> <u>RGC #18702</u>

February 7, 2019 at 10:00am at the Anderson County Courthouse

Sames Canson (CD)  Agaran (gilrenth (CD)	COMPANY/EMAIL  Southern Constructors Inc / lawson Osouthern constructor  Merit Construction / agil/catho merit construction .com  To berth. Potter South East Like Comail. can
A. J. Long  Jay Emmert	a. J. Long Executing / Robert Tiles ace57988@ gmail.com
Jay Emmert  Andrew King  Stanley Siler  Som Anderson (CD)	Je@ duracapasphalt.com  Andrew King @ duraca, Aspult.com  Volunteer Paving - Vol - Pave 8001 Cycho.com  SD Andrew Contractive dalatine compast
Laurel Parrick  PAVID DECKER	Copeland Brothers Twight 1212910@ Vahoo.com  LPATRICK @ First Place Fivish.us  Holston Const. /ddecker@holstonllc.com

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

# BID FORM FOR CONSTRUCTION CONTRACTS

Prepared by



Issued and Published Jointly by







#### Copyright © 2013:

National Society of Professional Engineers 1420 King Street, Alexandria, VA 22314-2794 (703) 684-2882

www.nspe.org

American Council of Engineering Companies 1015 15th Street N.W., Washington, DC 20005 (202) 347-7474

www.acec.org

American Society of Civil Engineers 1801 Alexander Bell Drive, Reston, VA 20191-4400 (800) 548-2723

www.asce.org

The copyright for this EJCDC document is owned jointly by the three sponsoring organizations listed above. The National Society of Professional Engineers is the Copyright Administrator for the EJCDC documents; please direct all inquiries regarding EJCDC copyrights to NSPE.

NOTE: EJCDC publications may be purchased at <a href="www.ejcdc.org">www.ejcdc.org</a>, or from any of the sponsoring organizations above.

#### **BID FORM**

# ANDERSON COUNTY NORRIS FREEWAY CONVENIENCE CENTER NORRIS FREEWAY US 411

#### RGC PROJECT NUMBER 18702 FEBRUARY 2019

#### **TABLE OF CONTENTS**

	Page
Article 1 – Bid Recipient	1
Article 2 – Bidder's Acknowledgements	
Article 3 – Bidder's Representations	1
Article 4 – Bidder's Certification	2
Article 5 – Basis of Bid	3
Article 6 – Time of Completion	5
Article 7 – Attachments to this Bid	6
Article 8 – Defined Terms	6
Article 9 – Rid Submittal	7

#### ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

> **Anderson County Courthouse** 100 N. Main Street Clinton, TN 37716

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

#### ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

#### **ARTICLE 3 – BIDDER'S REPRESENTATIONS**

- 3.01 In submitting this Bid, Bidder represents that:
  - Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.	Addendum, Date

- Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of

- such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

#### **ARTICLE 4 – BIDDER'S CERTIFICATION**

#### 4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
  - "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the e execution of the Contract.

#### **ARTICLE 5 - BASIS OF BID**

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

#### A. BASE BID (CONVENIENCE CENTER SITE DEVELOPMENT)

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	BID UNIT PRICE	BID PRICE
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1		
201-01	CLEARING AND GRUBBING	LS	1		
203-01	ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	3700		
203-03	BORROW EXCAVATION (ON SITE - UNCLASSIFIED)	CY	1500		
203-04	PLACING AND SPREADING TOPSOIL	CY	2200		
203-04.02	STRIPPING AND STOCKPILE TOPSOIL	CY	2200		
203-05	UNDERCUTTING	CY	1100		
209-99.91	EROSION CONTROL	LS	1		
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D (8" THICK)	TONS	2100		
307-01.08	ASPHALTIC CONCRETE MIX (PG64-22) (BPMB-HM) (3" THICK)	TONS	800		
411-02.11	ACS MIX (PG64-22) GRADING E (2" THICK)	TONS	550		
607-03.02	18" CONCRETE PIPE CULVERT	LF	46		
604-07.01	RETAINING WALL	SF	540		
610-10.45	COMPACTOR DRAINS	EA	4		
607-06.02	15" HDPE	LF	68		
611-07.31	18" ENDWALL	EA	1		
611-07.52	15" ENDWALL	EA	2		
611-12.02	CATCH BASINS, TYPE 12, > 4' - 8' DEPTH	EA	2		
730-05.01	ELECTRICAL WORK – INSTALLED COMPLETE	LS	1		
701-02	CONCRETE PADS (HEAVY DUTY)	SF	4700		
701-01.02	CONCRETE PADS (NORMAL DUTY)	SF	600		<u> </u>
702-01.02	CONCRETE CURB	LF	720		
707-01.11	CHAIN LINK FENCE (6 FOOT)	LF	1280		<u> </u>
707-01.13	GATE – CHAIN-LINK FENCE-6 FOOT (40')	EA	1		
709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	100		<u> </u>
713-16.20	SIGNS (STOP)	EA	1		<u> </u>
713-16.21	SIGNS (HANDICAP)	EA	1		<u> </u>
716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EA	5		<u> </u>
716-13.02	6" SPRAY THERMO PAVEMENT MARKING	LM	0.27		<u> </u>
716-04.10	PLASTIC PAVEMENT MARKING (HANDICAP SYMBOL)	EA	1		<u> </u>
717-01	MOBILIZATION	LS	1		
740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	SY	1300		
795-09.14	3/4 IN HDPE WATER SERVICE LINE & TAP	LF	530		
797-05	6" PVC GRAVITY SEWER 0FT – 6FT DEPTH	LF	352		
797-05.01	8" PVC GRAVITY SEWER 0FT - 6FT DEPTH	LF	120		
797-07.01	48" SEWER MANHOLE	EA	3		
797-08.08	6" CLEAN OUT ASSEMBLY	EA	1		
801-01	SEEDING (WITH MULCH)	UNIT	12		
801-03	WATER (SEEDING & SODDING)	MG	1		

900-02.02	OIL-WATER SEPARATOR	EA	1	
	72' LONG 12" WIDE 3" THICK GRADING E ASPHALT			
902-00	SPEED HUMP	LS	1	
920-18.05	OUTLET STRUCTURE ASSEMBLY	EA	1	

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Total of Unit Price Bid = Total Bid Price (BASE BID)	\$

#### NOTES:

- 1) EXCAVATION QUANTITIES TO INCLUDE GRADING REQUIRED TO BRING SITE TO PROPOSED SUBGRADE CONFIGURATION. ALL EXCAVATION TO BE ON SITE WITH NO OFF SITE BORROW OR WASTE AREAS. BID PRICE FOR EXCAVATION TO INCLUDE ALLOWANCE FOR ROCK. NO ADDITIONAL COST TO BE PAID FOR ROCK MATERIAL IN OVERALL EXCAVATION OR TRENCH EXCAVATION.
- 2) UNDERCUTTING EXCAVATION QUANTITY SUBJECT TO INCREASE OR DECREASE BASED ON SITE CONDITIONS AND ENGINEER'S RECOMMENDATION. BID PRICE PER UNIT TO INCLUDE REMOVING UNSUITABLE MATERIAL AND REPLACING WITH ENGINEERED FILL.
- 3) STONE BACKFILL TO BE INCLUDED IN BID PRICE PER UNIT FOR PIPE INSTALLATIONS.
- 4) BID PRICE FOR RETAINING WALL TO INCLUDE FOOTING, STONE BACKFILL, GEOFABRIC, GUARDRAIL, AND HAND RAILS.
- 5) CHAIN LINK FENCE AND GATE TO INCLUDE THREE STRANDS OF BARBED WIRE AROUND TOP.
- 6) CATCH BASINS TO BE PRE-CAST CONCRETE, NO POURED-IN-PLACE STRUCTURES.
- 7) RIP-RAP TO INCLUDE GEOFABRIC UNDERLAYMENT.
- 8) COST OF PARKING STOPS TO BE INCLUDED IN BID PRICE FOR PAVING.
- COST OF BACKFLOW PREVENTER TO BE INCLUDED IN BID PRICE FOR WATER SERVICE.
- 10) COST OF TURNDOWN, REINFORCING STEEL, AND BASE STONE INCLUDED IN BID PRICE FOR CONCRETE PADS.
- 11) DETENTION POND OUTLET STRUCTURE TO INCLUDE RISER, ANTI-SEEP COLLARS, EMERGENCY SPILLWAY, FIRST FLUSH FILTER, SEDIMENT FOREBAY, & RIP-RAP LEVEL SPREADER.
- 12) OIL WATER SEPARATOR TO INCLUDE EXTENDING MANHOLE RISERS TO GRADE.

#### B. ADDITIVE ALTERNATE: ALTERNATE 1 (NORRIS FREEWAY WIDENING)

Note: This additive alternate is for the widening of Norris Freeway and the site entrance to provide left turn and deceleration lanes and is subject to issuance of a permit from TDOT. This alternate may or may not be awarded with the base bid.

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	BID UNIT PRICE	BID PRICE
105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1		
201-01	CLEARING AND GRUBBING	LS	1		
203-01	ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	150		
203-04	PLACING AND SPREADING TOPSOIL	CY	40		
203-04.02	STRIPPING AND STOCKPILE TOPSOIL	CY	40		
203-05	UNDERCUTTING	CY	80		
209-99.91	EROSION CONTROL	LS	1		
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D (8")	TONS	240		
307-01.01	ASPHALTIC CONCRETE MIX (PG64-22) (BPMB-HM) GRADING A (3.5" THICK)	TONS	75		
403-01	BITUMINOUS MATERIALFOR TACK COAT (TC)	SY	350		
307-01.08	ASPHALTIC CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2 (2.25" THICK)	TONS	23		
407-20.05	SAW CUTTING ASPHALT PAVEMENT	LF	760		
411-01.10	ACS MIX (PG64-22) GRADING D (1.25" THICK)	TONS	240		
709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	20		
712-01	TRAFFIC CONTROL	LS	1		
713-16.41	RELOCATE SIGN	EA	1		
716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	SY	37		
716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EA	1		
716-04.03	PLASTIC PAVEMENT MARKING (4" DOTTED LINE)	LF	90		
716-13.02	6" SPRAY THERMO PAVEMENT MARKING	LM	0.83		
717-01	MOBILIZATION	LS	1		
801-01	SEEDING (WITH MULCH)	UNIT	1		
801-03	WATER (SEEDING & SODDING)	MG	1		

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Total of Unit Price Bid = Total Bid Price (ALTERNATE 1)	\$

NOTE:

1. PERFORMANCE BONDING IS TO INCLUDE \$85,000.00 TO THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT).

#### TIME OF COMPLETION

5.01	Bidder agrees that the Work will be substantially complete within 150 calendar days after
	the date when the Contract Times commence to run as provided in Paragraph 4.01 of the
	General Conditions, and will be completed and ready for final payment in accordance with
	Paragraph 15.06 of the General Conditions within 180 calendar days after the date when
	the Contract Times commence to run.

5.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

#### **ARTICLE 6 – ATTACHMENTS TO THIS BID**

- 6.01 The following documents are submitted with and made a condition of this Bid:
  - A. Required Bid security;
  - B. List of Proposed Subcontractors;
  - C. List of Proposed Suppliers;
  - D. List of Project References;
  - E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
  - F. Contractor's License No.: **[or]** Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
  - G. Required Bidder Qualification Statement with supporting data

#### **ARTICLE 7 – DEFINED TERMS**

7.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

#### **ARTICLE 8 – BID SUBMITTAL**

BIDDER: [Indicate correct name of bidding entity]	
By: [Signature]	
[Printed name] (If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)	
Attest: [Signature]	
[Printed name]	
Title:	
Submittal Date:	
Address for giving notices:	
Telephone Number:	
Fax Number:	
Contact Name and e-mail address:	
Bidder's License No.:	
(where applicable)	

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

#### SUPPLEMENTARY CONDITIONS

Prepared by



Issued and Published Jointly by







This **Guide to the Preparation of Supplementary Conditions** has been prepared for use with the Standard General Conditions of the Construction Contract (EJCDC® C-700, 2013 Edition). Their provisions are interrelated and a change in one may necessitate a change in the other. The suggested language contained in the **Guide to the Preparation of Instructions to Bidders** (EJCDC® C-200, 2013 Edition) is also carefully integrated with the suggested language of this document. The full EJCDC Construction series of documents is discussed in the **Commentary on the 2013 EJCDC Construction Documents** (EJCDC® C-001, 2013 Edition).

Copyright © 2013:

National Society of Professional Engineers 1420 King Street, Alexandria, VA 22314-2794 (703) 684-2882

www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474

www.acec.org

American Society of Civil Engineers

1801 Alexander Bell Drive, Reston, VA 20191-4400

(800) 548-2723

www.asce.org

The copyright for this EJCDC document is owned jointly by the three sponsoring organizations listed above. The National Society of Professional Engineers is the Copyright Administrator for the EJCDC documents; please direct all inquiries regarding EJCDC copyrights to NSPE.

NOTE: EJCDC publications may be purchased at <a href="www.ejcdc.org">www.ejcdc.org</a>, or from any of the sponsoring organizations above.

#### **TABLE OF CONTENTS**

		Page
l.	Introduction	1
	A. General	1
	B. Mandatory Supplementary Conditions	2
	C. Relationship of Supplementary Conditions to Other Contract Documents	2
	D. Arrangement of Subject Matter	3
	E. Use of this Guide	3
II.	Standard Prefatory Language and Traditional Format for Supplementary Conditions	4
	A. Table of Contents	4
	B. Pagination	4
	C. Format for Complete Paragraph Change	4
	D. Format for Change within a Paragraph	4
	E. Format for Additional Language	5
	F. Format for Additional Paragraph	5
III.	Alternative Format for Supplementary Conditions	5
IV.	Suggested Supplementary Conditions	6
	A. Caption and Introductory Statements	6

#### I. INTRODUCTION

#### A. General

The Engineers Joint Contract Documents Committee® (EJCDC®) has prepared and publishes standard contract forms for construction contracts, as well as bidding-related documents. The principal forms are listed in Table 1. EJCDC has also prepared other documents that may be useful in preparing construction contract documents. Some of the principal ones are listed in Table 2. For the most recent editions of these forms, guides, and other documents, please refer to EJCDC's website at <a href="https://www.ejcdc.org">www.ejcdc.org</a>.

Table 1 Principal EJCDC Standard Forms and Related Guides for Construction Contracts				
Name	Number	Short Title/Abbreviation		
Suggested Instructions to Bidders for Construction Contracts	C-200	Instructions/I		
Bid Form for Construction Contracts	C-410	Bid Form/BF		
Agreement between Owner and Contractor for Construction Contract (Stipulated Price)	C-520	Stipulated Price Agreement/A		
Agreement between Owner and Contractor for Construction Contract (Cost-Plus)	C-525	Cost-Plus Agreement/A		
Standard General Conditions of the Construction Contract	C-700	General Conditions/GC		
Guide to the Preparation of Supplementary Conditions	C-800	Supplementary Conditions/SC		

Table 2 Principal EJCDC Documents Relating to Preparation of Construction Documents									
Name	Name Number Short Title								
Commentary on the 2013 EJCDC Construction Documents	C-001	Commentary							
Uniform Location of Subject Matter	N-122	Locator Guide							
Bidding Procedures and Construction Contract Documents	C-050	Bidding Procedures							
Engineer's Letter to Owner Requesting Instructions Concerning Bonds and Insurance	C-051	Engineer's Letter to Owner Concerning Bonds and Insurance							
Owner's Instructions to Engineer Concerning Bonds and Insurance	C-052	Owner's Instructions Concerning Bonds and Insurance							

#### **B.** Mandatory Supplementary Conditions

Several provisions of the General Conditions expressly indicate that essential Project-specific information will be set out in a corresponding Supplementary Condition. For example, Paragraph 6.03.I of the General Conditions indicates that required insurance coverage limits will be specified in the Supplementary Conditions. Every EJCDC-based construction contract should include, at a minimum, the following Supplementary Conditions:

- One of the suggested Paragraphs SC-5.03, concerning reports and drawings of conditions at the Site, and any Technical Data in the reports and drawings on whose accuracy the Contractor may rely;
- 2. One of the suggested Paragraphs SC-5.06, concerning reports and drawings regarding Hazardous Environmental Conditions at the Site, and any Technical Data in those reports and drawings on whose accuracy the Contractor may rely;
- 3. Those portions of SC-6.03 identifying specific insurance coverage requirements; and
- 4. One of the two alternatives presented in SC-10.03 (either the Engineer will provide Resident Project Representative services on the Project, with specific authority and responsibilities, or Engineer will not provide Resident Project Representative services).

Other suggested Supplementary Conditions are mandatory under specific circumstances: for example, on projects in which the Contractor will be responsible for compliance with Owner's safety program, SC-7.12 would be mandatory.

#### C. Relationship of Supplementary Conditions to Other Contract Documents

Supplementary Conditions are modifications to the General Conditions—additions, deletions, changes. This is as the term is defined by EJCDC and the Construction Specification Institute (CSI). Other organizations use their supplementary conditions to modify a broader range of contract documents, such as agreement forms and standard specifications.

This Guide and the other Construction-related documents prepared and issued by EJCDC assume use of the CSI MasterFormat™ concept, which provides an organizational format for location of all documentary information for a construction project: Bidding Requirements, contract forms (Agreement, Bonds, and certificates), General Conditions, Supplementary Conditions, and Specifications. Under the CSI MasterFormat™, the last grouping, Specifications, is divided into 49 Divisions, the first of which, Division 01, is entitled "General Requirements."

The standard fundamental provisions affecting the rights and duties of the parties appear in the General Conditions. Language to modify the fundamental relationships between the parties, supplement the framework set forth in the General Conditions, or change the language of the General Conditions, should appear in the Supplementary Conditions. Examples of this are a change in Contractor's Site responsibilities, and a supplemental clause specifying the details of insurance coverages and limits for the Project.

Price terms, monetary terms such as liquidated damages clauses, and completion dates should all be set forth in the Agreement (EJCDC® C-520–Stipulated Sum or C-525–Cost-Plus), and should not be included in the Supplementary Conditions.

The substance of the General Requirements (Division 01 of the Specifications) falls generally into three categories: (1) administrative requirements, such as summary of work, allowances, coordination, alternatives (materials, equipment, or price), product options, project meetings, and project close-out; (2) work-related provisions, such as temporary facilities, field testing, and

start-up; and (3) general provisions applicable to more than one section in Divisions 02 through 49.

#### D. Arrangement of Subject Matter

This Guide is arranged in the same order as the 2013 edition of the General Conditions, and the paragraphs herein bear comparable addresses to those of the General Conditions but with the prefix "SC." A discussion of the purpose and function of these suggested Supplementary Conditions is included in EJCDC® C-001, Commentary on the 2013 EJCDC Construction Documents.

#### E. Use of this Guide

The text presented in bold type in the remainder of this Guide is suggested language for some commonly used Supplementary Conditions. The drafter should bear in mind that most contractual provisions have important legal consequences. Consultation with legal counsel before finalization of any amendment or supplement is recommended.

Many sets of supplementary conditions examined by EJCDC contain typical or "boilerplate" provisions that have accumulated like moss over the years, appear to have no practical significance for the particular project, and may produce unintended and surprising legal consequences. Such provisions are usually there because someone saw similar terms in other contract documents and it "sounded good." Selecting contract terms in that manner is not recommended. Provisions of the Supplementary Conditions should address a particular point in the General Conditions or cover a particular topic. The Supplementary Conditions should not be a repository for general language of vague meaning for which another location cannot be readily found.

This Guide assumes a general familiarity with the other Construction-related (C-series) documents prepared by EJCDC and, when drafting language, specific attention to them is encouraged. Standard documents or prescribed forms issued by governmental bodies and other owners may differ materially from the documents of EJCDC so that careful correlation of any amending or supplementing language is essential. The practice of stating that any provision in one document that is inconsistent with another is superseded, or that one document always takes precedence over another in the event of a conflict in language or requirements, is sometimes necessary, but generally discouraged. The resulting legal consequences of such provisions are frequently difficult to decipher and may be very different from what was anticipated.

The EJCDC General Conditions use carefully chosen language and set forth the basic responsibilities of the parties with respect to fundamental matters and legal consequences. Their provisions should be altered only where mandated by the specific requirements of a given project and the consequences of any modification are thoroughly understood.

Caution should be exercised when making any change in the standard documents. They have been carefully prepared, terms are used uniformly throughout and are consistent with the terms in other EJCDC documents. Their provisions have been carefully integrated, and are dependent on one another. A change in one document may necessitate a change in another, and a change in one paragraph may necessitate a change in other language of the same document. No change should be made until its full effect on the rest of the General Conditions and other Contract Documents has been considered.

Users must follow the instructions and restrictions regarding the use of this document that are set out in the License Agreement that accompanied the document at the time of purchase or

acquisition. To prepare this document for use on a specific project, after reviewing all instructions and explanatory text and notes, (1) remove the cover pages, this Introduction, Part II (Standard Prefatory Language and Traditional Format for Supplementary Conditions) and Part III (Alternative Format for Supplementary Conditions) (2) fill in Project-specific information and make revisions to the document, following the guidance in the explanatory text and notes, and the advice of legal counsel, and (3) delete the explanatory text and notes.

Lastly, remember that an engineer is neither qualified nor licensed to give advice to others on the legal consequences of contracts. All of the Contract Documents have important legal consequences. Owners should be encouraged to seek the advice of an attorney before accepting any modification of the printed forms, before the documents are sent out for bidding, and most assuredly before signing any agreement.

# II. STANDARD PREFATORY LANGUAGE AND TRADITIONAL FORMAT FOR SUPPLEMENTARY CONDITIONS

Suggested format and wording conventions for Supplementary Conditions appear below.

#### A. Table of Contents

The inclusion of a table of contents will benefit the user of the Supplementary Conditions, especially if additional articles (beyond the 18 Articles of the General Conditions) are added for the purpose of including mandated or other provisions.

#### B. Pagination

If CSI's MasterFormat<sup>™</sup>, 2012 Edition, is being used for the Project Manual, consult MasterFormat<sup>™</sup> for the appropriate section number and number the pages accordingly.

#### C. Format for Complete Paragraph Change

When completely superseding a paragraph of the General Conditions, the following language may be used:

#### SC 5.09.B Delete Paragraph 5.09.B in its entirety and insert the following in its place:

N/A – No paragraphs of the General Conditions
Have been superseded unless specifically indicated
within other sections of the Supplemental
Conditions

#### D. Format for Change within a Paragraph

When changing language within a paragraph of the General Conditions, the following language may be used:

# SC 6.21.A Amend the second sentence of Paragraph 6.21.A [to read as follows] [or] [by striking out the following words]:

N/A			

	expressed a	follows:	
	SC 9.03	Add the following language at the end of the second sentence of Paragraph 9.15	<b>;</b> :
		N/A	
F.	Format for A	dditional Paragraph	
	If it is desire as follows:	d to add a new paragraph to the General Conditions, the thought may be express	ed
	SC 8.06	Add the following new paragraph immediately after Paragraph 8.06.B:	
		N/A	

When adding language to an existing paragraph of the General Conditions, the idea may be

#### III. ALTERNATIVE FORMAT FOR SUPPLEMENTARY CONDITIONS

E. Format for Additional Language

Electronic files are commonly used for transmittal and storage of the text of standard documents. In fact, EJCDC no longer publishes printed documents. Because it is easy to modify documents electronically, it is increasingly common for practitioners to integrate the text of desired Supplementary Conditions into the text of the General Conditions. Most word processing programs have line-out and underlining features that accurately show deletions, changes, and additions. Users of EJCDC's General Conditions are contractually obligated, through the terms of the purchase of the document, to clearly delineate all changes made to the standard text of the General Conditions to other parties in interest (for example, if Owner makes changes, Owner should show these changes to prospective bidders). It would be misleading to users to imply or represent that the General Conditions are EJCDC's General Conditions if changes are not properly and clearly identified during the contract formation process.

#### IV. SUGGESTED SUPPLEMENTARY CONDITIONS

A. Caption and Introductory Statements

The following is a suggestion for use at the beginning of the Supplementary Conditions for a specific project:

#### **Supplementary Conditions**

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

#### ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

#### SC-1.01 Defined Terms

- A. If the Contract will include a Geotechnical Baseline Report (see Article 5 below), include the following definitions:
  - SC-1.01. Add to the list of definitions in Paragraph 1.01.A by inserting the following as numbered items in their proper alphabetical positions:

Geotechnical Baseline Report (GBR) — The interpretive report prepared by or for Owner regarding subsurface conditions at the Site, and containing specific baseline geotechnical conditions that may be anticipated or relied upon for bidding and contract administration purposes, subject to the controlling provisions of the Contract, including the GBR's own terms. The GBR is a Contract Document.

Geotechnical Data Report (GDR) — The factual report that collects and presents data regarding actual subsurface conditions at or adjacent to the Site, including Technical Data and other geotechnical data, prepared by or for Owner in support of the Geotechnical Baseline Report. The GDR's content may include logs of borings, trenches, and other site investigations, recorded measurements of subsurface water levels, the results of field and laboratory testing, and descriptions of the investigative and testing programs. The GDR does not include an interpretation of the data. If opinions, or interpretive or speculative non-factual comments or statements appear in a document that is labeled a GDR, such opinions, comments, or statements are not operative parts of the GDR and do not have contractual standing. Subject to that exception, the GDR is a Contract Document.

SC-01.A.8 Add the following language at the end of the last sentence of Paragraph 1.01.A.8:

The Change Order form to be used on this Project is EJCDC C-941. Agency approval is required before Change Orders are effective.

#### **ARTICLE 2 – PRELIMINARY MATTERS**

#### SC-2.01 Delivery of Bonds and Evidence of Insurance

A. Paragraph 2.01.B of the General Conditions requires that Contractor furnish certificates of insurance. Paragraph 6.02.C states that upon request by Owner or other named or additional insureds, Contractor must provide evidence of insurance such as copies of required policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Parallel provisions apply to Owner and the insurance that Owner is required to provide. Rather than relying on this two-step process (delivery of certificates of insurance at the outset; subsequent requests for additional evidence of insurance), some contract drafters may elect to require from the outset that copies of the insurance policies, rather than certificates of insurance, be delivered to the other party. If exchange of copies of insurance policies is required, the following should be used:

# SC-2.01 Delete Paragraphs 2.01 B. and C. in their entirety and insert the following in their place:

- B. Evidence of Contractor's Insurance: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies of insurance (including all endorsements, and identification of applicable self-insured retentions and deductibles) required to be provided by Contractor in Article 6. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- C. Evidence of Owner's Insurance: After receipt from Contractor of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor copies of the policies of insurance to be provided by Owner under Article 6 (if any). Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

#### SC-2.02 Copies of Documents

A. If the number of printed or hard copies of the Drawings and Project Manual to be provided is different than four copies the following may be used:

#### SC-2.02.A. Amend the first sentence of Paragraph 2.02.A. to read as follows:

Owner shall furnish to Contractor [\_\_2\_\_] copies of the Contract Documents (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF).

B. On some projects it may be useful to produce conformed Contract Documents, in which the content of Addenda and negotiated changes are merged into the appropriate Specifications, Drawings, General Conditions, or other Contract Documents. This may be especially true on private construction projects where the terms and scope are negotiated and modified significantly after the initial release of proposed Contract Documents. Conformed documents may be considerably more convenient to use during the performance of the Work and the administration of the Contract.

EJCDC advises that if conformed documents are to be prepared and made available to Contractor, sufficient time and budget must be allocated to ensure the quality and full coordination of the conformed documents, and Owner and Engineer must recognize that Contractor, Subcontractors,

and Suppliers will likely rely on the conformed version of the Contract Documents rather than the source components. If conformed documents are prepared without the level of commitment necessary to allow them to be accorded the full status of "Contract Documents," and are merely for reference or convenience, they should be accompanied by clear disclaimers of their content and a warning to consult the actual source Contract Documents.

A Supplementary Condition regarding conformed documents is necessary only if the Owner intends to provide the Contractor with conformed documents that will serve as binding Contract Documents. The following may be used for that purpose:

- SC-2.02 Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:
  - A. Owner shall furnish to Contractor [\_\_2\_\_\_] copies of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction.
- C. Note: If Owner is not furnishing PDF or other electronic files of the Contract Documents, then draft (1) a Supplementary Condition that deletes the reference in 2.02.A of the General Conditions to providing the PDF files, and (2) a Supplementary Condition that deletes Paragraph 3.01.C in its entirety.
  - SC 2.06.B (Non-mandatory). Guidance Note: If the parties do not intend to develop electronic or digital transmittal protocols, then Paragraph 2.06B of the General Conditions may be deleted. Use the following Supplementary Condition in such case:

#### SC-2.06.B Delete Paragraph 2.06.B and replace it with the term {Deleted}

Guidance Note, continued: If the use of electronic data, electronic media, or electronic project monitoring is planned for this Project, then the parties may develop a protocol with the assistance of the Engineer or Consensus DOCS form 200.2 may be added to the Construction Contract as an Exhibit. If Consensus DOCS form 200.2 will be used, then include the following Supplementary Condition:

SC-2.06.B Add the following language to the end of 2.06.B:

Special requirements for electronic data apply to this Project. See attached Exhibit entitled "Electronic Communications Protocol Addendum," Consensus DOCS form 200.02.

#### ARTICLE 4 - COMMENCEMENT AND PROGRESS OF THE WORK

SC 4.01.A Amend the last sentence of Paragraph 4.01.A by striking out the following words:

In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

SC 4.05.C.2 Amend Paragraph 4.05C.2 by striking out the following text: "abnormal weather conditions;" and inserting the following text:

**Abnormal Weather Conditions:** 

# ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

#### SC-5.03 Subsurface and Physical Conditions

A. This is a mandatory Supplementary Condition. Paragraph 5.03, Subsurface and Physical Conditions, of the General Conditions requires the identification of all known documents regarding subsurface and physical conditions at or adjacent to the Site (this requirement is broader than merely requiring that Contractor be given access to subsurface reports prepared for the current Project). It also requires the identification of Technical Data (upon whose accuracy Contractor may rely) contained in such documents. Use the first version of SC-5.03, presented immediately below, for the purpose of identifying the known Site condition documents. If no such documents are known, then use the second version of SC-5.03, below. Also note that if the known documents include either a geotechnical report or environmental report prepared for the Project, or both, and the Supplemetary Conditions neglect to expressly identify the Technical Data, upon whose accuracy Contractor may rely, that is contained in such reports, then the default definition of Technical Data in Paragraph 1.01 of the General Conditions will apply.

Note that if Owner elects to furnish a Geotechnical Baseline Report (GBR), use the alternate SC/GBR-5.03 and SC/GBR 5.04 located in the next section of this document, rather than one of the SC-5.03 versions immediately following. If a GBR is used, it remains important to disclose known reports and tests regarding subsurface conditions; a place for doing so is provided in SC/GBR-5.03. If some Site conditions are outside the scope of the Geotechnical Baseline Report it will continue to be necessary to identify reliable Technical Data contained in such reports and drawings; however, if the Geotechnical Baseline Report or a related Geotechnical Data Report already establish the data that is worthy of reliance, it will not be necessary to make a redundant identification in SC/GBR 5.03.

#### SC 5.03 Delete Paragraphs 5.03.A and 5.03.B in their entirety and insert the following:

- A. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.
- **B.** Geotechnical Baseline Reports: Some project owners use a Geotechnical Baseline Report (GBR) for projects (or portions of a project) in which the subsurface conditions will play a significant role. Providing a GBR may result in bids with lower contingencies for subsurface conditions, and simplify the application of the differing site conditions provisions in Article 5 of the General Conditions. Commentary on Geotechnical Baseline Reports is presented in EJCDC® C-001. See also Geotechnical Baseline Reports for Construction—Suggested Guidelines, by Randall J. Essex, P.E., ASCE 2007. In many cases it may be advantageous for Owner, Engineer, or the geotechnical engineer to engage a consultant with GBR experience to assist in preparation of the GBR and related documents.

On projects in which a Geotechnical Baseline Report is used, it is typical to also assemble and provide a Geotechnical Data Report (GDR), as a separate, single source of factual geotechnical information regarding the Site. The content of the GDR is in essence what the EJCDC documents define as "Technical Data"—reliable factual information, such as boring logs and laboratory test results. (See the definition of Technical Data in Article 1 of the General Conditions, and the definition of a GDR in Article 1 of these Supplementary Conditions). Some Owners may elect to issue a GBR without compiling a GDR, but regardless of the format it is essential to identify and

make all geotechnical data available. Note that a typical general purpose geotechnical report, usually prepared primarily to assist in the design of the project, often contains not only factual data but also opinions, interpretations, and even speculation regarding the Site's subsurface conditions. Such a geotechnical report is not suitable to be adopted or identified as a GDR.

Although it is preferable that a GBR be comprehensive with respect to subsurface conditions, in some cases a GBR will establish baselines for a portion of a project, but will not address all subsurface issues. For example, the GBR may establish baseline subsurface conditions along the route of a pipeline, but be silent with respect to conditions underlying an associated pump building. Also, in some cases a project will involve both subsurface construction as well as building modifications or other tasks unrelated to geotechnical investigations, analysis, or interpretations. The SC/GBR provisions that follow retain certain differing site condition provisions of the General Conditions, in part because these may be needed for situations that are outside the scope of the GBR. As noted previously, these SC/GBR provisions contain locations for (1) identifying known reports and drawings regarding the subsurface conditions (a mandatory obligation), and (2) identifying Technical Data upon whose accuracy Contractor may rely (necessary in some but not all GBR projects, depending on the scope of the GBR and GDR documents).

If a GBR is used, then include the following GBR Supplementary Conditions, and do not use either of the Paragraphs SC-5.03 above:

SC/GBR-5.03 and 5.04. Delete Paragraphs 5.03 and 5.04 of the General Conditions in their entireties and replace with the following provisions:

SC/GBR-5.03 Subsurface and Physical Conditions

- A. Reports and Drawings: The Supplementary Conditions hereby identify:
  - those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site (other than any Geotechnical Data Report or Geotechnical Baseline Report), and Technical Data contained in such reports. Such reports are as follows:
    - a. Report dated October 19, 2018 prepared by GEOS, Knoxville, TN entitled Report of Geotechnical Exploration, Anderson County Convenience Center. The Technical Data contained in such report upon whose accuracy Contractor may rely are none.
  - those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), and Technical Data contained in such drawings. Such drawings are as follows: N/A
    - a. Drawings dated N/A
      - (2) None of the contents of such drawings is Technical Data on whose accuracy Contractor may rely.
  - 3. Contractor may examine copies of reports and drawings identified immediately above that were not included with the Bidding Documents at RGC&A, L.P. at 7523 Taggart Lane Knoxville, TN 37938\_\_\_\_\_\_\_ during regular business hours, or may request copies from Engineer, at the cost of reproduction.

**B.** Reliance by Contractor on Technical Data Authorized:

Contractor may rely upon the accuracy of the Technical Data contained in such reports and drawings, but such reports and drawings are not Contract Documents. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.
- C. Geotechnical Baseline Report:
- 1. This Contract contains a Report of Geotechnical Exploration, identified as follows: Report of Geotechnical Exploration, Anderson County Convenience Center, dated October 18, 2018 prepared by GEOS, Inc., Knoxville, TN.
- 2. The GBR and GDR are incorporated as Contract Documents. The GBR and GDR are to be used in conjunction with other Contract Documents, including the Drawings and Specifications. If there is a conflict between the terms of the GBR and the GDR, the GBR's terms shall prevail.
- 3. The GBR describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations (referred to here in the Supplementary Conditions as "Baseline Conditions"). These may include ground, geological, groundwater, and other subsurface geotechnical conditions, and baselines of anticipated Underground Facilities or subsurface structures.
- 4. The Baseline Conditions shall be used to assist in the administration of the Contract's differing site conditions clause at locations where subsurface conditions have been baselined. If a condition is baselined in the GBR, then only the pertinent Baseline Conditions shall be used to determine whether there is a differing site condition; and no other indication of that condition in the Contract Documents or Technical Data, or of a condition that describes, quantifies, or measures a similar characteristic of the subsurface, shall be used for the differing site condition determination.
- 5. The Baseline Conditions shall not be used to make differing site conditions determinations at locations that have not been baselined in the GBR, or at any location with respect to subsurface conditions that the Baseline Conditions do not address. If Underground Facilities or Hazardous Environmental Conditions are expressly addressed in the Baseline Conditions, then comparison to such Baseline Conditions shall be the primary means of determining (a) whether an Underground Facility was shown or indicated with reasonable accuracy, as provided in Paragraph 5.05 of the General Conditions, or (b) whether a Hazardous Environmental Condition was shown or indicated in the Contract Documents as indicated in Paragraph 5.06.H of the General Conditions. As indicated in Paragraph SC-5.04 below, the GDR shall be the primary resource for differing site conditions determinations in cases in which the GBR is inapplicable.
- 6. The descriptions of subsurface conditions provided in the GBR are based on geotechnical investigations, laboratory tests, interpretation, interpolation, extrapolation, and analyses. Neither Owner, Engineer, nor any geotechnical or other consultant warrants or guarantees that actual

subsurface conditions will be as described in the GBR, nor is the GBR intended to warrant or guarantee the use of specific means or methods of construction.

- 7. The behavior of the ground during construction depends substantially upon the Contractor's selected means, methods, techniques, sequences, and procedures of construction. If ground behavior conditions are baselined in the GBR, they are based on stated assumptions regarding construction means and methods.
- 8. The GBR shall not reduce or relieve Contractor of its responsibility for the planning, selection, and implementation of safety precautions and programs incident to Contractor's means, methods, techniques, sequences, and procedures of construction, or to the Work.

SC/GBR-5.04 Differing Subsurface or Physical Conditions

- A. Notice: If Contractor believes that any subsurface condition that is uncovered or revealed at the Site:
  - differs materially from conditions shown or indicated in the GBR; or
  - 2. differs materially from conditions shown or indicated in the GDR, to the extent the GBR is inapplicable; or
  - differs materially from conditions shown or indicated in Contract Documents other than the GBR or GDR, to the extent the GBR and GDR are inapplicable; or
  - 4. to the extent the GBR and GDR are inapplicable, is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
  - 5. to the extent the GBR and GDR are inapplicable, is of such a nature as to require a change in the Drawings or Specifications; or
  - to the extent the GBR and GDR are inapplicable, is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. Engineer's Review: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph SC/GBR 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption or continuation of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or

Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. Owner's Statement to Contractor Regarding Site Condition:

After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption or continuation of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

- D. Possible Price and Times Adjustments:
  - Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
    - a. such condition must fall within any one or more of the categories described in Paragraph SC/GBR 5.04.A;
    - with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03 of the General Conditions; and,
    - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
  - 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
    - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
    - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
    - c. Contractor failed to give the written notice as required by Paragraph SC/GBR 5.04.A.
  - If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
  - 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract

Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

#### SC-5.06 Hazardous Environmental Conditions

SC 5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. Not Used.

#### ARTICLE 6 - BONDS AND INSURANCE

SC-6.02 Insurance—General Provisions

A. Paragraph 6.02.B of the General Conditions requires that all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better, unless a different standard is indicated in the Supplementary Conditions. The A.M. Best ratings are based on the financial strength and size of the insurance company, with A-VII representing a commonly used standard. SC-6.02 is the location for noting any different standard, whether narrower or broader.

Note that in some states not all worker's compensation insurers obtain A.M. Best ratings. The Owner may wish to include the following optional exception (modified to meet applicable provisions in the state) to the requirement in 6.02.B:

- SC-6.02 Add the following paragraph immediately after Paragraph 6.02.B:
  - 1. Contractor may obtain worker's compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in the state in which the project is located, (b) is certified or authorized as a worker's compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker's compensation insurance for similar projects by the state within the last 12 months.

#### SC-6.03 Contractor's Insurance

- A. **This is a mandatory Supplementary Condition**, because it is the location for specifying the limits of the coverages for the insurance required in Paragraph 6.03 of the General Conditions. The information set forth in this Supplementary Conditions (and in all other contractual provisions regarding bonds and insurance) should be provided by Owner, either directly or through written instructions given to Engineer.
  - SC 6.03 Add the following new paragraph immediately after Paragraph 6.03.J:
    - K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:
      - 1. Workers' Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:	Statutory
Federal, if applicable (e.g., Longshoreman's):	Statutory

	Jones Act coverage, if applicable:		
	Bodily injury by accident, each accident	\$	1,000,000.00
	Bodily injury by disease, aggregate	\$	1,000,000.00
	Employer's Liability:		
	Bodily injury, each accident	\$	1,000,000.00
	Bodily injury by disease, each employee	\$	1,000,000.00
	Bodily injury/disease aggregate	\$	1,000,000.00
	For work performed in monopolistic states, stop- gap liability coverage shall be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:	\$	1,000,000.00
	Foreign voluntary worker compensation		Statutory
2.	Contractor's Commercial General Liability unde 6.03.C of the General Conditions:	er Pa	aragraphs 6.03.B and
	General Aggregate	\$	1,000,000.00
	Products - Completed Operations Aggregate	\$	1,000,000.00
	Personal and Advertising Injury	\$	1,000,000.00
	Each Occurrence (Bodily Injury and Property Damage)	\$	1,000,000.00
3.	Automobile Liability under Paragraph 6.03.D. of th	ie G	eneral Conditions:
	Bodily Injury:		
	Each person	\$	1,000,000.00
	Each accident	\$	1,000,000.00
	Property Damage:		
	Each accident	\$	1,000,000.00
	[or] Combined Single Limit of	\$	1,000,000.00
	-		· · ·
4.	Excess or Umbrella Liability:		
	Per Occurrence	\$	1,000,000.00

General Aggregate	\$	1,000,000.00
Contractor's Pollution Liability:		
Each Occurrence	\$	N/A
General Aggregate	\$	N/A
IXI		-
		Engineer, include as
Contractor's Professional Liability:		
Each Claim	\$	1,000,000.00
Annual Aggregate	\$	1,000,000.00
	Contractor's Pollution Liability:  Each Occurrence  General Aggregate  If box is checked, Contractor is not requested Pollution Liability insurance under this Additional Insureds: In addition to Owner additional insureds the following: Anderson Contractor's Professional Liability:	Contractor's Pollution Liability:  Each Occurrence \$ General Aggregate \$  If box is checked, Contractor is not required to Pollution Liability insurance under this Contractor additional Insureds: In addition to Owner and additional insureds the following: Anderson County Contractor's Professional Liability:

#### SC-6.05 Property Insurance

A. Builder's Risk Deductible: Paragraph 6.05.A of the General Conditions requires builder's risk insurance on a completed value basis, subject to such deductible amounts as are provided by the Supplementary Conditions. In many cases, the Owner (as the party directing or specifying the content of the insurance-related Supplementary Conditions) will choose not to specify any deductibles, leaving establishment of the deductible amounts to the discretion of the purchasing party, which is responsible for payment of the deductibles. Even when a deductible is stipulated, it is typically a maximum amount; the purchaser may choose to purchase a policy with a lower deductible. Note that it is common for builder's risk policies to feature several different deductibles, typically including a primary deductible and specific deductibles applicable to specific types of loss. The following Supplementary Condition provides a means of identifying a primary deductible; other specific deductibles may also be added.

If a primary deductible is to be stipulated, use the following to establish the maximum amount of the deductible:

SC-6.05.	Add the following to the list of requirements in Paragraph 6.05.A, as a numbered
	item:

- 14. be subject to a deductible amount of no more than [\$\_\_\_\_\_] for direct physical loss in any one occurrence.
- B. Builder's Risk—Supplemental Insureds: Paragraph 6.05.A.1 of the General Conditions refers to other individuals or entities (in addition to the Owner, Contractor, and all Subcontractors) that are to be identified in the Supplementary Conditions as being entitled to protection as insureds under the builder's risk insurance on the Work. In such cases use the following:

#### SC-6.05.A.1 Add the following new subparagraph after subparagraph 6.05.A.1:

- In addition to Owner, Contractor, and all Subcontractors, include as insureds the following: <u>Anderson County</u>
- C. Builder's Risk—Supplemental Requirements: Paragraph 6.05.A of the General Conditions lists several items that are to be included in the builder's risk insurance. Consider adding one or more of the following items to the list as appropriate to the specific project: **N/A** 
  - SC-6.05.A. Add the following to the list of items in Paragraph 6.05.A, as numbered items:
    - 15. include for the benefit of Owner loss of profits and soft cost coverage including, without limitation, fixed expenses and debt service for a minimum of 12 months with a maximum deductible of 30 days, plus attorneys fees and engineering or other consultants' fees, if not otherwise covered;
- D. Installation Floater: An installation floater is insurance carried by the Contractor, covering the materials and equipment to be incorporated in the Work. It typically does not insure against losses that occur after installation. In most cases, builder's risk insurance offers broader coverage and is the preferred risk management instrument. On some projects, an installation floater may be an acceptable alternative to a builder's risk policy. See EJCDC® C-001, Commentary on the 2013 EJCDC Construction Documents. (In other instances, Contractor may choose to purchase an installation floater to supplement property insurance provided by Owner.) If, after consultation with its risk managers, Owner elects to require purchase of an installation floater rather than a builder's risk policy, the following requirements may be included as a Supplementary Condition:
  - SC-6.05.A. Delete Paragraph 6.05.A of the General Conditions and substitute the following in its place:

Contractor shall provide and maintain installation floater insurance for property under the care, custody, or control of Contractor. The installation floater insurance shall be a broad form or "all risk" policy providing coverage for all materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work. Coverage under the Contractor's installation floater will include:

- 1. any loss to property while in transit,
- 2. any loss at the Site, and
- 3. any loss while in storage, both on-site and off-site.

Coverage cannot be contingent on an external cause or risk, or limited to property for which the Contractor is legally liable. The Contractor will be solely responsible for any deductible carried under this coverage and claims on materials, supplies, machinery, fixture, and equipment that will be incorporated into the Work while in transit or in storage. This policy will include a waiver of subrogation applicable to Owner, Contractor, Engineer, all Subcontractors, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them.

#### ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.02 Labor; Working Hours

- A. To provide details regarding the meaning of the terms "regular hours" and "legal holidays," consider specifically defining them by adding the following:
  - SC-7.02.B. Add the following new subparagraphs immediately after Paragraph 7.02.B:
    - **1. Regular working hours will be** [here insert schedule of regular working hours]
    - **2. Owner's legal holidays are** [here insert list of legal holidays]
- B. To modify the days of the week that Contractor may work, use the following:
  - SC-7.02.B. Amend the first and second sentences of Paragraph 7.02.B to state "...all Work at the Site shall be performed during regular working hours, [7:00] through [7:00]. Contractor will not perform Work on a [Saturday], [Sunday], or any legal holiday."
- C. If the Owner has no objections to the Contractor working multiple shifts, weekends, and legal holidays, use the following:
  - SC-7.02.B. Delete Paragraph 7.02 B. in its entirety, and insert the following:
    - B. In the absence of any Laws or Regulations to the contrary, Contractor may perform the Work on holidays, during any or all hours of the day, and on any or all days of the week, at Contractor's sole discretion.
- D. If Contractor is permitted to Work outside regular hours and on weekends and holidays, whether by a contractual provision or by Owner's consent during the course of the Project, then it is good practice to address the issue of whether Owner may charge Contractor for engineering expenses associated with the non-regular schedule. Some Owners may prefer to absorb these costs to incentivize (or at least facilitate) an aggressive schedule and timely completion; and in many cases the net additional expense may be modest. Other Owners may prefer to establish and collect a charge for the engineering services. Add the following as SC-7.02.C, making a policy choice regarding responsibility in the beginning of the sentence:
  - SC-7.02.C. Add the following new paragraph immediately after Paragraph 7.02.B:

[Contractor] shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

#### SC-7.09 Taxes

A. If Owner qualifies for a state or local sales or use tax exemption in the purchase of certain materials and equipment, add the following Supplementary Condition, with any revisions necessary to meet the specific applicable exemption rules. (Note: If instructions to bidders or proposers are used, confirm that the provisions here are consistent with the corresponding provisions in such instructions. See Suggested Instructions to Bidders for Construction Contracts, EJCDC® C-200, Article 23.)

#### SC 7.09 Add a new paragraph immediately after Paragraph 7.09.A:

- B. Owner is exempt from payment of sales and compensating use taxes of the State of [insert name of state where Project is located] and of cities and counties thereof on all materials to be incorporated into the Work.
  - Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
  - 2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

#### SC-7.12 Safety and Protection

A. Some Owners have written safety programs with which construction contractors must comply. If such is the case, Paragraph 7.12.C of the General Conditions mandates that the safety program be identified in the Supplementary Conditions (and Paragraph 9.12 requires Owner to provide a copy of such programs to Contractor). The identification of the safety programs may be accomplished as follows:

#### ARTICLE 8 – OTHER WORK AT THE SITE

#### SC-8.02 Coordination

A. Paragraph 8.02 of the General Conditions requires that if in addition to retaining Contractor, Owner will arrange to have others perform work at the Site, Owner must provide to Contractor specified information regarding coordination of construction activities. (Note that Owner should provide specific information about the other work —nature of the work, scope, schedule, exact location—elsewhere in the Contract Documents or in other documentation.) Use the following in that case:

#### SC-8.02 Delete Paragraph 8.02.A in its entirety and replace with the following:

- A. Owner intends to contract with others for the performance of other work at or adjacent to the Site.
  - <u>Anderson County</u> shall have authority and responsibility for coordination of the various contractors and work forces at the Site;

#### **ARTICLE 9 – OWNER'S RESPONSIBILITIES**

#### SC-9.13 Owner's Site Representative

A. Paragraph 10.03 of the General Conditions indicates that the Owner may designate a representative or agent who is not Engineer's consultant, agent, or employee, to represent Owner at the Site ("Owner's Site Representative"). In such case the Owner typically would not have the Engineer furnish a Resident Project Representative, hence the second version of SC-10.03.B below would be used to indicate there is no Engineer's Resident Project Representative.

The following should be used for the identification of the Owner's Site Representative. Note that the following must be supplemented by customized text that explains the responsibilities of the Owner's Site Representative, so far as such are relevant to Contractor. The content of Paragraphs SC-10.03.B and C below may be a helpful starting point in drafting such supplemental text. In addition, if Owner's retention of an Owner's Site Representative will affect other aspects of Engineer's status during construction, other portions of Article 10 and many other parts of the General Conditions will need to be revised. In such cases it is typical for (and Laws and Regulations may require) the design engineer (as engineer of record) to at least retain a role with respect to design-intent reviews of submittals and similar aspects of the Work.

SC-9.13 Add the following new paragraph immediately after Paragraph 9.12 of the General Conditions:

SC-9.13 Owner will furnish an "Owner's Site Representative" to represent Owner at the Site and assist Owner in observing the progress and quality of the Work. The Owner's Site Representative is not Engineer's consultant, agent, or employee. Owner's Site Representative will be [Here identify individual or entirety]. The authority and responsibilities of Owner's Site Representative follow: [Here describe the duties and activities of the Owner's Site Representative]

#### **ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION**

SC-10.03 Project Representative

B. On this Project, by agreement with the Owner, Engineer will not furnish a Resident Project Representative to represent Engineer at the Site or assist Engineer in observing the progress and quality of the Work.

#### ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

SC-13.01 Cost of the Work

A. Equipment rental charges, particularly with respect to Contractor-owned equipment, can sometimes lead to disagreements. To reduce the possibility of such disagreements, the following Supplementary Condition may be used. Note that it requires a published reference or method for determining the costs.

SC 13.01.B.5.c Delete Paragraph 13.01.B.5.c in its entirety and insert the following in its place:

- c. Construction Equipment and Machinery:
  - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly,

EJCDC® C-800 (Rev. 1), Guide to the Preparation of Supplementary Conditions.

Copyright © 2013 National Society of Professional Engineers, American Council of Engineering Companies, and American Society of Civil Engineers.

dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

#### SC 13.03 Unit Price Work

A. The following Supplementary Condition is typically called a "variation in estimated quantities (VEQ) clause" and facilitates administrative resolution of situations where actual quantities of unit price items differ materially from estimated quantities. Typically, the clause applies where the extended price (unit price times estimated quantity) of an item of the Unit Price Work is more than 5 percent of the Contract Price (based on estimated quantities), and the actual quantity of the units of work performed or furnished varies by more than a specified percent (typically 15 to 25 percent).

#### SC 13.03.E Delete Paragraph 13.03.E in its entirety and insert the following in its place:

- E. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:
  - if Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price.

#### ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

#### SC-15.03 Substantial Completion

A. Paragraph 15.03.A of the General Conditions requires Contractor to give notice that the Work is substantially complete; Paragraph 15.03.B requires an inspection of the Work to determine whether Engineer agrees that the Work is substantially complete. If the Work is not substantially complete, and must be inspected again at a later point, then the following Supplementary Condition, if included in the Contract, would allow Owner to recover the cost of the re-inspection.

#### SC 15.03.B Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

#### **ARTICLE 17 – FINAL RESOLUTION OF DISPUTES**

B. Paragraph 17.01.B of the General Conditions provides that for any dispute subject to final resolution under Article 17, Owner or Contractor may invoke the dispute resolution procedure called for in the Supplementary Conditions. Paragraph SC-17.02 is the location to identify any such primary dispute resolution procedure. If no procedure is identified here in the Supplementary Conditions, and the parties do not agree to a specific procedure, then the default resolution procedure will be litigation—the pursuit of rights in a court of competent jurisdiction. Note that before reaching the point of final resolution of disputes, in most cases the Owner and Contractor

will already have engaged in the Claim process described in Article 12 of the General Conditions. That process allows for mediation of the dispute.

As an alternative to litigation, there are many other possible dispute resolution procedures, or combinations of procedures. One of the most common is arbitration; wording for an arbitration clause follows. A discussion of the pros and cons of the arbitration process (and there are many advocates on both sides) is beyond the scope of this Guide. Owner should consult with its legal counsel when considering the inclusion of an arbitration clause, or of any other dispute resolution procedure or combination of procedures.

#### SC-17.03 Attorneys' Fees

A. In most jurisdictions in the United States, as a general matter each party to a dispute is responsible for its own attorneys' fees, unless an express agreement provides to the contrary. Some legal authorities believe that this general rule encourages claims and disputes, because claimants have little concern that they will be forced to pay for the opposing party's fees if the claim fails. Other authorities take the opposite view—that the enticing prospect of not only prevailing but also of having one's own fees paid by the opponent would encourage overly aggressive pursuit of claims (or overzealous defense against valid claims).

If an exception to the general American rule is preferred for disputes subject to final resolution under Article 17, then add the following express agreement:

SC-17.03 Add the following new paragraph immediately after Paragraph 17.02. [Note: If there is no Paragraph 17.02, because neither arbitration nor any other dispute resolution process has been specified here in the Supplementary Conditions, then revise this to state "Add the following new paragraph immediately after Paragraph 17.01" and revise the numbering accordingly.]

SC-17.03 Attorneys' Fees: For any matter subject to final resolution under this Article, the prevailing party shall be entitled to an award of its attorneys' fees incurred in the final resolution proceedings, in an equitable amount to be determined in the discretion of the court, arbitrator, arbitration panel, or other arbiter of the matter subject to final resolution, taking into account the parties' initial demand or defense positions in comparison with the final result.

#### SPECIALTY (S) (continued)

S-Granite/Limestone/Monuments

S-Grain Conveying Systems

S-Greenhouses S-House Moving

S-Industrial Equipment Install

S-Laboratory Equipment

S-Lightning Protection

S-Leak Detection Systems

S-Liners

S-Low Voltage Cabling

S-Maintenance

S-Mass Transit Equipment

S-Medical Gas

S-Metal Building Installation

S-Meter Installation

S-Parking Lot Equipment

S-Paint Finishing Equipment

S-Pipeline

S-Playground Equipment Installation

S-Poultry Equipment

S-Pressure Washing

S-Refinery Maintenance

S-Refractory

S-Repair

S-Right of Way Clearing

S-Robotic Equipment

S- Scale Weigh Systems

S-Sewer & Storm Water Cleaning & Inspection

S-Shelving & Storage Racks

S-Solar Panel Installations

S-Synthetic Turf Installation

S-Theatre/Stage/Studio Construction

S-Telecommunications

S-Toilet Partitions

S-Tree Trimming

S-Utility Poles & Inspection

S-Warehouse Storage

S-Water Tanks

S-Water Meter Installation

S-Well Drilling

#### IV. HEAVY CONSTRUCTION (HC) - (No Exam)

- A. Marine (wharves, docks, harbor improvements & terminals) (HC-A)
- B. Tunnel and Shaft (HC-B)
- C. Energy and Power Plants (HC-C)
- D. Dams, Dikes, Levees and Canals (HC-D)
- E. Mining Surface and Underground (HC-E)
- F. Oil Field Construction (HC-F)
- G. Oil Refineries (HC-G)
- H. Storm Damage Cleanup (HC-H)
- I. Landfill Construction (HC-I)
- Heavy Construction Categories (HC) Apply to All Areas)
- 1. Structural Steel Erection (HC-1)
- 2. Tower and Stack Construction (HC-2)
- 3. Foundation Construction, Pile Driving, Foundation Drilling, and Stabilization (HC-3)
- 4. Demolition and Movement of Structures (HC-4)
- 6. Clearing, Grubbing, Snagging and Rip Rap (HC-5)6. Slipform Concrete Structures (HC-6)
- 7. Rigging and Crane Rigging (HC-7)
- 8. Welding (HC-8)

Continued →

#### V. HIGHWAY, RAILROAD AND AIRPORT CONSTRUCTION (HRA) - (No Exam)

Contractors bidding to the Tennessee Department of Transportation (TDOT) may obtain prequalification, bid lettings and other information at: <a href="https://www.tn.gov/tdot/section/tdot-construction-division">https://www.tn.gov/tdot/section/tdot-construction-division</a>

Also check with the Tennessee Department of Environment and Conservation (TDEC) for NPDES (National Pollutant Discharge Elimination System) permit requirements at: <a href="https://tn.gov/environment/article/permit-npdes-stomwater-construction-permit">https://tn.gov/environment/article/permit-npdes-stomwater-construction-permit</a>

Highway, Railroad and Airport Construction (HRA) - (No Exam)

#### A. Grading and Drainage (HRA-A)

Includes grading, drainage pipe and structures, clearing and grubbing.

#### B. Base and Paving (HRA-B)

- 1. Base Construction (HRA-B.1)
- 2. Hot and Cold Mix Asphalt (HRA-B.2)
- 3. Surface Treatment Asphalt (HRA-B.3)
- 4. Concrete Paving (HRA-B.4)

#### C. Bridges and Culverts (HRA-C)

- 1. Painting (HRA-C.1)
- 2. Repair (HRA-C,2)
- 3. Demolition (HRA-C.3)
- 4. Bridge Deck Overlay (Sealant) (HRA-C.4)
- 5. Gunite (HRA-C.5)
- 6. Cofferdam (HRA-C.6)
- 7. Steel Erection (HRA-C.7)
- D. Railroad Construction and Related Items (HRA-D)

#### E. Miscellaneous and Specialty Items (HRA-E)

- 1. Traffic Safety(HRA-E.1)
  - (a) Pavement Markers (HRA-E.1(a))
  - (b) Signing(HRA-E.1(b))
  - (c) Guardrail and Fencing (HRA-E-1(c))
  - (d) Attenuators, signalization and roadway lighting (HRA-E-1(d))
- 2. Landscaping (HRA-E.2)

Includes seeding, sodding, planting, and chemical weed and brush control.

- Pavement Rehabilitation (HRAEE3)
   Includes pressure grouting, grinding and grooving, concrete joints, and underdrains.
- 4. Well Drilling (HRA-E.4)\*
- Miscellaneous Concrete (HRA-E.5) Includes sidewalks, driveways, curb and gutter, and box culverts.

\*Well Drilling also requires a license from the Tennessee Department of Environment and Conservation (TDEC). Their requirements are at: <a href="https://in.gov/environment/article/permit-well-driller-or-installer-license">https://in.gov/environment/article/permit-well-driller-or-installer-license</a>. Note: Pursuant T.C.A. 62-6-119, geothermal closed loop contractor's must list the well driller's TDEC license information on the bid envelope.

#### VI. MUNICIPAL AND UTILITY CONSTRUCTION (MU) - (BC-B Exam Required)

Municipal and Utility Construction includes all supervision, labor, material and equipment to complete underground piping, water and sewer plants and sewer disposal, grading and drainage, and paving (unless restricted to specific areas named). A commercial (BC-B or BC) is considered an acceptable classification to bid and perform any of the work within these categories, including the MU-B.

Continued →

#### MUNICIPAL AND UTILITY CONSTRUCTION (MU) (Exam Required BC-B or BC for full MU or MU-B)

#### A, Underground Piping (MU-A) (No Exam)

Furnish supervision, labor, material and equipment to complete all underground piping for municipal and utility construction (unless restricted to specific areas names).

- 1. Gas Distribution and Transmission Lines (MU-A.1)
- 2. Sewer Lines, Storm Drains, Rehabilitation and Structures (MU-A.2)
- 3. Waterlines (MU-A.3)
- 4. Underground Conduit (MU-A.4)
- B. Water and Sewer Systems (MU-B or BC-B or BC) (BC-B or BC Exam Regulred)
- C. Grading and Drainage (MU-C) \* (No Exam)
  - Includes grading, drainage pipe and structures, clearing and grubbing,
- D. Base and Paving (MU-D) (No Exam)

  - 1. Base Construction (MU-D-1) (No Exam)
    2. Hot and Cold Mix Asphalt (MU-D-2) (No Exam)
  - 3. Surface Treatment Asphalt (MU-D-3) (No Exam)
  - 4. Concrete Pavement (MU-D-4) (No Exam)
  - 5. Miscellaneous Concrete (sidewalks, driveways, curb, gutter, box culverts) (MU-D-5) (No Exam)

\*Grading contractors should also check with the Tennessee Department of Environment and Conservation (TDEC) for NPDES (National Pollutant Discharge Elimination System) permit requirements at: https://tn.gov/environment/article/permit-npdes-stormwater-construction-permit

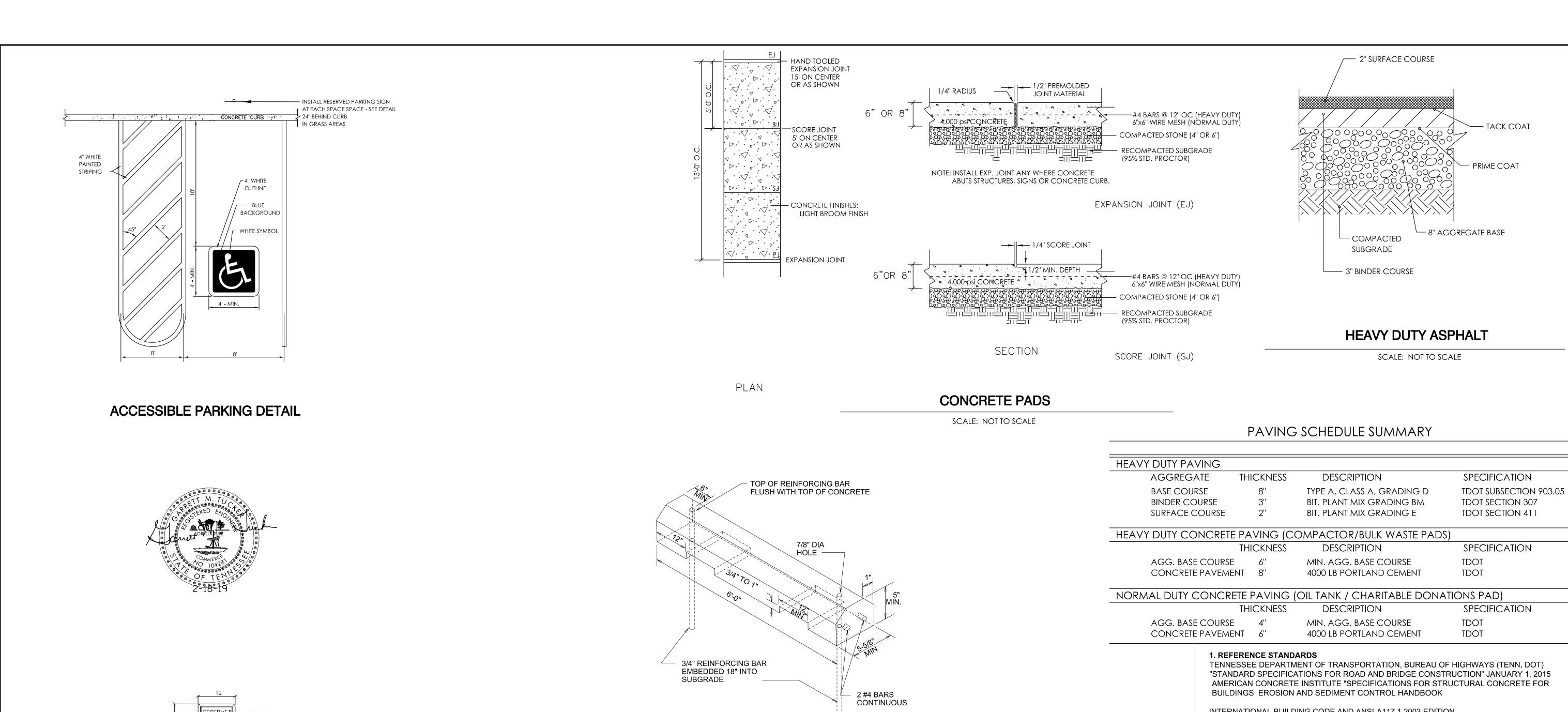
#### VII. MECHANICAL CONTRACTING (CMC) - (Exam Required)

The classification CMC is noted on licenses issued after 1992 and represents that the licensee has passed the Board licensing exam and that no county or municipality shall require such state licensee or its employees to pass any county or municipal Exam or examination pursuant to TCA § 62-6-111(i)(2)(C).

- \*Pre-approval is required to take CMC (mechanical) or CMC-A (plumbing) exam at: http://www.tn.gov/assets/entities/commerce/attachments/ContPlumbingExpApprovalWeb.pdf
- Prime and Subcontractors performing mechanical work must be licensed as a contractor. In addition, Plumbers, HVAC and Geothermal TDEC Well Drillers must be listed on the bid envelope (see TCA 62-6-119).
- Must also obtain permits from local government for inspections.

Mechanical Contracting (CMC) - (Exam Required for full CMC)

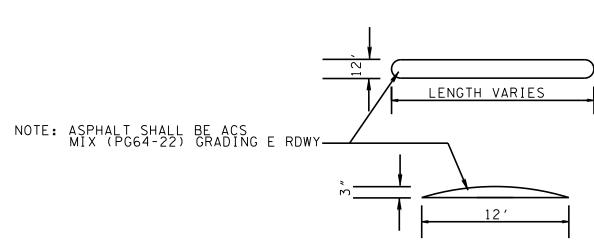
- A. Plumbing and Gas Piping (CMC-A) (Exam Required) \* Exam pre-approval required for CMC-A and CMC
- B. Process Piping (CMC-B) (No Exam)
- C. HVAC, Refrigeration and Gas Piping (CMC-C) (Exam Required)
- Solar HVAC (Geothermal) (Exam Required) Geothermal - Well Driller's refer to Tennessee Department of Environment and Conservation (TDEC) for additional requirements at: https://tn.gov/environment/article/permit-well-driller-or-installer-license
- D. Sprinklers & Fire Protection (CMC-D) (Exam Required)
- Must also obtain licenses as a Firm and RME with the Tennessee Division of Fire Prevention. More information at: http://www.tn.gov/commerce/article/fire-licensing
- E. Insulation of Mechanical Work (CMC-E) (No Exam)



# PARKING BUMPER

(PRECAST CONCRETE)

N.T.S.



PARKING

HANDICAP PARKING SIGN

PROVIDE AS
REQUIRED
ON PLANS
ACCESSIBLE

BORDER

SYMBOL ON BLUE

SQUARE

GREEN LETTERING, --- BACKGROUND

— WHITE BACKGROUND

**ASPHALT SPEED HUMP DETAIL** 

INTERNATIONAL BUILDING CODE AND ANSI-A117.1 2003 EDITION

#### 2. ASPHALT

PAVING ...... SEE PLAN DETAILS

CUT CLEAN EDGES ON EXISTING PAVEMENT AND PROVIDE SMOOTH TRANSITION INTO PROPOSED PAVEMENT BOTH HORIZONTALLY AND VERTICALLY. MINIMUM GRADE ON ALL NEW ASPHALT SHALL BE 1 PERCENT. MINIMUM CROSS SECTION PITCH OF ROADS TO BE 2 PERCENT.

#### 3. CONCRETE PADS ...... SEE PLAN DETAILS

HEAVY DUTY COMPACTOR PADS & BULK WASTE PAD (WITH TURNDOWNS) NORMAL DUTY OIL TANK/CHARITABLE DONATIONS PAD (NO TURNDOWNS)

### 4. PARKING LAYOUT, STRIPING & DIRECTIONAL SIGNS

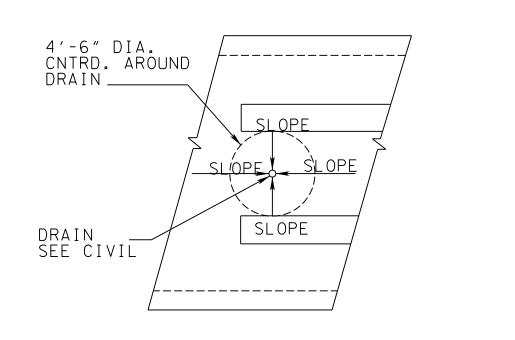
TYPICAL PARKING SPACES ARE 9' X 20' WITH VEHICULAR DRIVES OF 30'. PARKING STALLS SHALL RECEIVE A 4" WIDE WHITE PAINTED STRIPE. PARKING SHALL RECEIVE LANE AND TRAFFIC CONTROL PAINT AS PER CITY CODE. HANDICAPPED PARKING SHALL RECEIVE A PAINTED HANDICAPPED SYMBOL AND SIGN.

## 5. CURBS

CURBS SHALL BE 6 " CONCRETE PER TDOT SPECIFICATIONS.

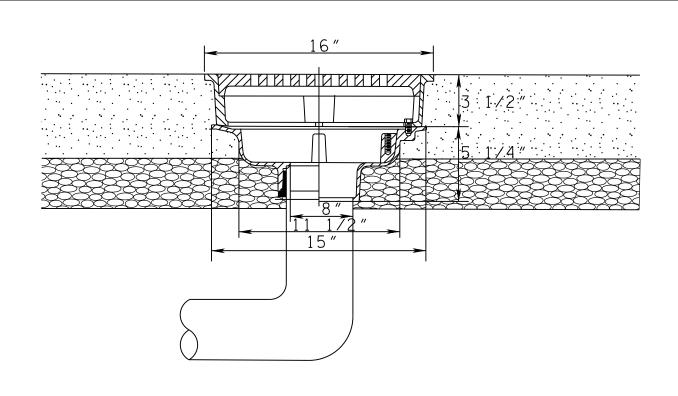
PROVIDE ALL NECESSARY SAFETY TRAFFIC AND ACCESS CONTROL TO SITE.

		ROBERT G. CAMPBELL & ASSOC., L.P. CONSULTING ENGINEERS	ANDERSON COUNTY SOLID WASTE	DETAILS	DESIGNED BY GMT	CHECKED BY RGC	SCALE NO SCALE	SHEET NO. (11)
NO. DATE DESCRIPTION  REVISIONS	BY CKD. RGC&A	KNOXVILLE, TENNESSEE	NORRIS FREEWAY CONVENIENCE CENTER	DETAILS	DRAWN BY	DATE 2-18-19	FILE NO. 18702	OF NINETEEN SHEETS



NOTE: TO BE FIELD LOCATED BASED ON SLOPE OF PAD

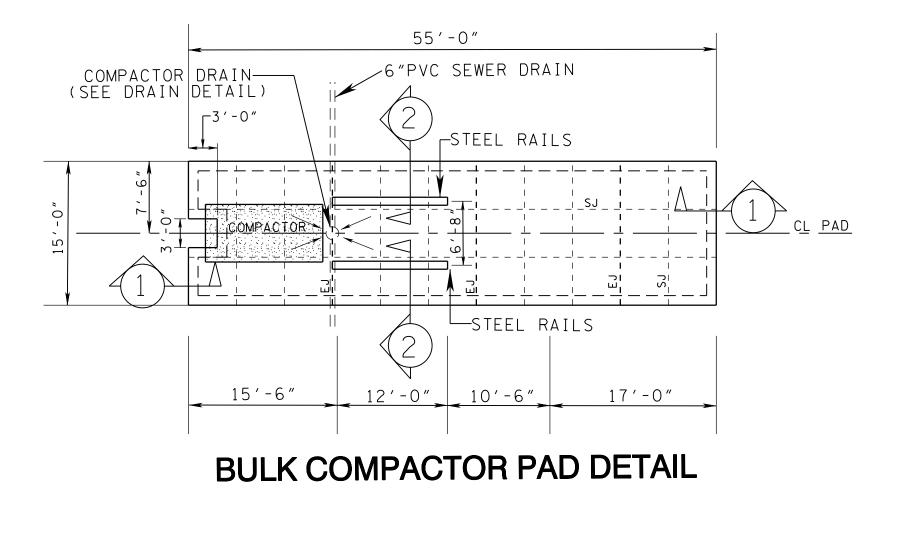
# **DRAIN DETAIL**



NOTES:

COMPACTOR PAD DRAIN TO BE HEAVY DUTY ZURN Z-545 OR EQUAL

# COMPACTOR PAD DRAIN



NOTES:

1) DACO CORPORATION OR EQUAL

2) HEIGHT = 36"
UPRIGHT DIMENSIONS - 2" × 2" × 12 GUAGE
TOP RAIL DIMENSIONS - 2" × 2" × 14 GUAGE
INTERIOR RAIL DIMENSIONS - 1.5" × 1.5" X 14 GUAGE
KICKPLATE DIMENSIONS - 4"
STOCK COLOR - YELLOW

STEEL RAIL EMBEDDED PL
1/2 " x10" CONT.
SEE PLAN FOR
STEEL RAIL LOACTION

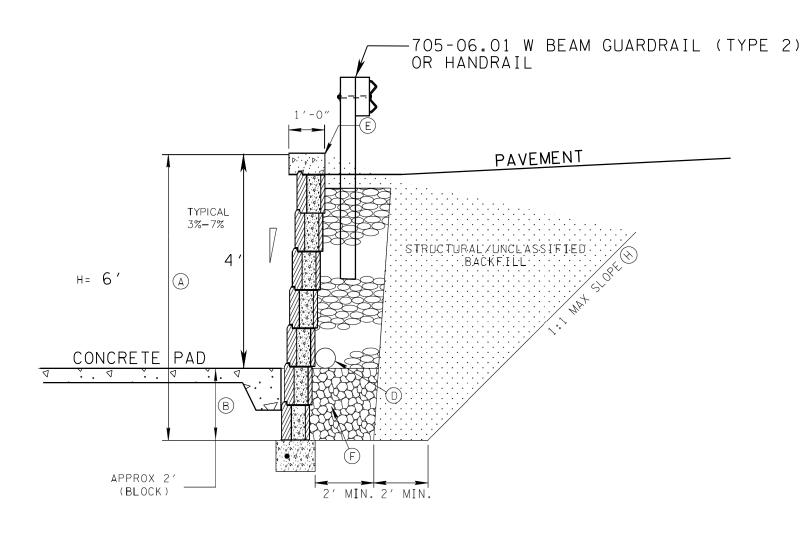
SURFACE, GRADE "E"

(2) 1-1/2 "x4" STUDS
(18" 0.C.
(TYP. @ EA. RAIL)

SECTION (2)

SECTION (2)

HANDRAIL DETAIL



# NOTES:

- A. GRAVITY WALL TO BE 4 FEET IN HEIGHT ABOVE FINISHED GRADE.
- B. BASE OF WALL IS TO BE BELOW THE FROST LINE UNLESS PLACED ON SOLID ROCK FOUNDATION. PLACE BOTTOM TWO (2) FEET OF WALL BELOW FINISHED GRADE.
- C. 4" DIAMETER WEEP HOLES AT MAXIMUM 10'-0" CENTER-TO-CENTER ARE TO BE PLACED AT TEH LOWEST POINT PRACTICAL FOR PROPER DRAINAGE. THE ENGINEER WILL DETERMINE BOTHE HORIZONTAL AND VERTICAL SPACING OF WEEP HOLES. PIPE IS TO BE PAID FOR UNDER THE PRICE BID FOR THE WALL.
- D. 6" DIAMETER PIPE IS TO BE CONNECTED TO AN OUTLET PIPE AT THE LOW POINT. PIPE IS TO BE PAID FOR UNDER THE PRICE BID FOR THE WALL.
- E. TOP OF WALL TO TIE TO ASPHALT PAVEMENT WITH GUARD RAIL AND HAND RAIL PROTECTION, TO BE PAID FOR UNDER THE UNIT PRICE BID FOR THE WALL.
- F. GRANULAR BACKFILL BEHIND GRAVITY RETAINING WALL AND BELOW FLOW LINE OF OUTLET PIPE IS TO BE INCLUDED IN THE PRICE BID FOR THE WALL.

# 1" ASPHALTIC CONCRETE SURFACE, GRADE "E" 1/2" 4 BARS @ 12" OC @ SLAB CL 1'-0" (2) "4 BARS CONT. SECTION 1 SECTION 1

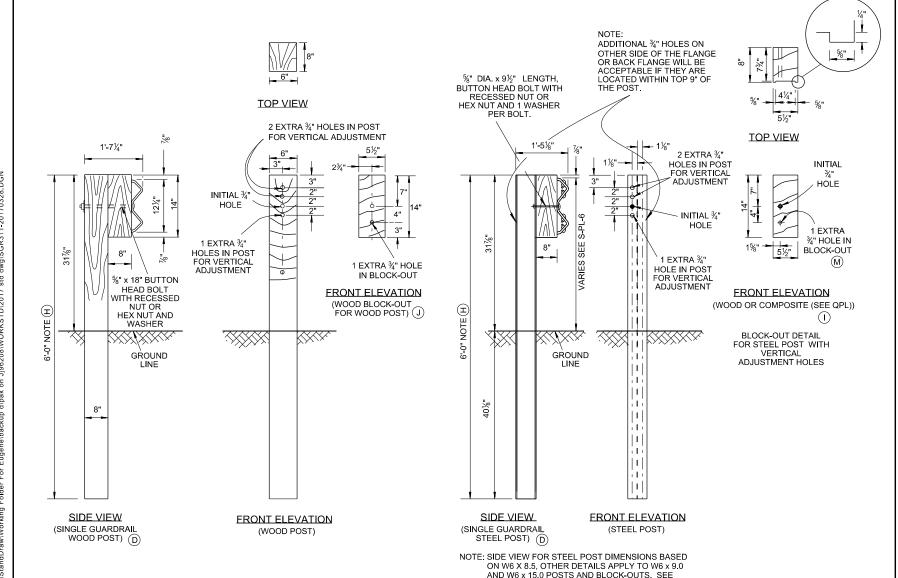
# MODULAR BLOCK GRAVITY RETAINING WALL

				ROBERT G. CAMPBELL & ASSOC., L.P.	ANDEDOON COUNTY COULD WAS TE		DESIGNED BY	CHECKED BY	SCALE	SHEET
				CONSULTING ENGINEERS	ANDERSON COUNTY SOLID WASTE	DETAILS	GMT	RGC	NO SCALE	」 <sub>NO.</sub> ( <b>13</b> )
NO. DATE	DESCRIPTION BY	Y CKD.	RGĆ&A		NORRIS FREEWAY CONVENIENCE CENTER	DETAILS	DRAWN BY	DATE	FILE NO.	
·	REVISIONS			KNOXVILLE, TENNESSEE			GMT	2-18-19	18702	OF NINETEEN SHEETS

#### PLAN VIEW

# W-BEAM LENGTHS 13-6 ½" OR 26'-0 ½" AASHTO M180, CLASS "A", TYPE 2 Q INTERMEDIATE POST 6'-3" FAIL BOLT SLOT POST BOLT SLOT POST BOLT SLOT POST BOLT SLOT RAIL BOLT SLOT RAIL BOLT SLOT RAIL BOLT SLOT POST BOLT SLOT RAIL BOLT SLOT

#### **FRONT ELEVATION "W"-BEAM**



S-GR31-1A FOR FASTENING HARDWARE DETAILS.

#### GENERAL NOTES

#### METAL BEAM

- $\stackrel{\textstyle \frown}{\mbox{A}}$  METAL BEAMS SHALL CONFORM TO AASHTO M 180: TYPE 2, CLASS "A" UNLESS OTHERWISE NOTED ON THE PLANS.
- (B) WHERE GUARDRAIL IS PLACED ON A CURVE WITH A RADIUS LESS THAN 150 FEET, THE RAIL IS TO BE SHOP-FORMED TO THE REQUIRED RADIUS.
- © AT THE OPTION OF THE CONTRACTOR THE RAIL ELEMENTS FOR THE GUARDRAIL MAY BE FURNISHED IN EITHER 12'-6" OR 25' NOMINAL LENGTHS WITH POST BOLT SLOTS FOR CONNECTION TO POSTS.

#### **POSTS**

- ① THE CONTRACTOR MAY HAVE THE CHOICE OF EITHER HOT ROLLED OR WELDED STEEL W6 X 8.5 OR W6 X 9 OR 8" X 6" WOOD POST. EXCEPT AS NOTED:
  - 1) THE MIXING OF ANY POST TYPES ON A GIVEN PROJECT WILL BE AVOIDED IF AT ALL POSSIBLE.
  - (2) SHOULD IT BECOME NECESSARY TO MIX POST TYPES ON A GIVEN PROJECT POSTS SHALL NOT BE MIXED ON A SINGLE RUN OF GUARDRAIL EXCEPT AS NECESSARY AT END TERMINALS.
  - ③W6 X 15 IS USED WITH GUARDRAIL CONNECTION TO STRUCTURES.
- (E) STEEL POSTS SHALL CONFORM TO ASTM A36 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A123. BOLT HOLES SHALL BE APPROXIMATELY CENTERED BETWEEN WEB AND EDGE OF FLANGE OF SPACERS AND POSTS.
- (F) WOOD POSTS SHALL CONFORM WITH TDOT CONSTRUCTION STANDARD SPECIFICATIONS.
- (G) WELDED STEEL POSTS SHALL CONFORM TO ASTM A769 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A123, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- (H) ON STEEP SLOPES, WHEN GUARDRAIL IS PLACED AT SLOPE BREAK, MINIMUM POST LENGTH SHALL BE BASED ON TABLE ON STANDARD DRAWING S-PL-6. ADDITIONAL EXPENSE TO BE INCLUDED IN THE COST OF THE RUN OF GUARDRAIL.

#### BLOCK OUTS

- BLOCK OUTS SHALL BE WOOD CONFORMING TO THE REQUIREMENTS OF TDOT CONSTRUCTION STANDARD SPECIFICATIONS OR PLASTIC GUARDRAIL BLOCK OUTS LISTED ON THE TDOT QUALIFIED PRODUCT LIST.
- $\bigodot$  ONLY WOODEN BLOCK OUTS MAY BE USED WITH WOODEN POSTS, PLASTIC OR WOODEN BLOCK OUTS MAY BE USED WITH STEEL POSTS.
- (K) ALL BLOCK OUTS SHALL MEET MASH GUIDELINES.
- MIXING THE BLOCK OUT MATERIAL ON A GIVEN PROJECT SHOULD BE AVOIDED. IF MIXING OF BLOCK OUT MATERIAL IS NECESSARY, BLOCK OUTS SHALL NOT BE MIXED ON A SINGLE RUN OF GUARDRAIL

#### **FUTURE ADJUSTMENTS**

- $\begin{picture}(M)\\M)$  BLOCK OUTS SHALL HAVE ONE ADDITIONAL  $\frak{\%}"$  HOLE, FOUR INCHES BELOW THE INITIAL HOLE FOR FUTURE ADJUSTMENT.
- (N) INITIAL INSTALLATION REQUIRES ONE BOLT CONNECTION, EACH ADJUSTMENT THEREAFTER REQUIRES TWO BOLT CONNECTIONS.

#### END TREATMENTS

- (O) ALL RUNS OF GUARDRAIL WILL BEGIN AND END WITH AN ANCHOR SYSTEM (SEE S-GRA-SERIES).
- (P) GUARDRAIL ENDS THAT ARE INSIDE THE CLEAR ZONE AND EXPOSED TO ONCOMING TRAFFIC SHALL HAVE A CRASH WORTHY END TERMINAL AS NOTED:
  - 1 ANY ROAD WITH SUITABLE BACK SLOPES SHALL USE END TERMINALS BURIED IN BACK SLOPE (SEE S-GRT-1).
  - ② ALL HIGHWAY SYSTEM ROADS WITHOUT SUITABLE BACK SLOPES SHALL USE TANGENTIAL END TERMINALS (SEE S-GRT-2).
  - $\stackrel{\hbox{\scriptsize (3)}}{}$  ALL OTHER ROADS WITH POSTED SPEED < 45 MPH SHALL USE MASH TL-2 END TERMINALS UNLESS OTHERWISE NOTED (SEE S-GRT-3).

#### DESIGN

- Q 4 FEET BEHIND GUARDRAIL SHALL BE CLEAR OF OBSTRUCTIONS FOR DEFLECTION.
- (R) REFER TO SAFETY PLAN STANDARDS FOR HOW TO DETERMINE THE BEGINNING AND END.

#### PAYMEN

S PAYMENT FOR GUARDRAIL WILL BE UNDER ITEM:

705-06.01 W BEAM GUARDRAIL (TYPE 2) (MASH TL-3) PER LF

- $({\rm T})$  PAYMENT FOR SPECIAL CONNECTIONS AND GUARDRAIL SECTIONS REQUIRED FOR END TREATMENTS WILL BE AS NOTED ON THOSE DRAWINGS.
- (U) FOR W-GR BEAM INSTALLATION, LOCATION, AND DEFLECTION NOTES SEE S-PL-6.

SHEET NOT TO SCALE

REV. 12-1-14: REVISED NOTE

REV.4-4-16: REVISED NOTES.

REV. 10-20-16: ADDED NOTE
TO ADDRESS ADDITIONAL HOLES

☐ REV. 3-28-17: REMOVED NOTE(T) CHANGED PAY ITEM NUMBER IMPROVED POST SIDE VIEWS AND FRONT ELEVATION VIEWS.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

W-BEAM GUARDRAIL

7-11-13

S-GR31-1