

This **Guide to Specifiers** pertains to the State of Michigan's new Owner–Contractor Contract, also referred to as **MICHSPEC™ Model Division 0 Specifications**. The **MICHSPEC™ Model Division 0 Specifications** have been developed from the **FORMSPEC™ Michigan Model – Facilities Projects, 1997 Edition**. Although the **MICHSPEC™ Division 0 Specifications** are as simply as practical, it is nonetheless advisable for the **Specifier** to consult with this companion **Guide to Specifiers** for their proper use. The **MICHSPEC™ Division 0 Specifications** were developed by incorporating provisions and requirements furnished by the State into the **FORMSPEC™ Michigan Model**. The **MICHSPEC™ Division 0 Specifications** have undergone detailed technical reviews by Infrastructure Services representatives and detailed legal reviews by the Department of the Attorney General for the State of Michigan. Specifiers are encouraged to consult with a Division 0 specifications specialist or an attorney knowledgeable in public contracts when preparing specifications for specific projects.

**GUIDE TO SPECIFIERS FOR
BIDDING REQUIREMENTS,
CONTRACT FORMS AND CONDITIONS OF THE CONTRACT
AND PROGRESS SCHEDULE SPECIFICATION**

**FIRM–PRICE PUBLIC CONSTRUCTION CONTRACTS
MICHSPEC™ No. 97.0820–00010 THROUGH 97.0820–00825
AND MICHSPEC™ No. 97.0820–01310**

STATE OF MICHIGAN

REVISION 1

Released on November 15, 2001

1997 Edition

This **Guide to Specifiers** provides comments on certain significant aspects of the **MICHSPEC™ Model Specifications** and, at the same time, is intended to demonstrate the steps involved in completing Division 0 Specifications for specific contracts. This **Guide** singles out paragraphs where additional information may be required; also, it provides samples illustrating how other **FORMSPEC™ Model Specifications** have been used by others. Questions concerning this **Guide to Specifiers** or the **MICHSPEC™ Model Specifications** should be directed to the State of Michigan, Department of Management and Budget (**DMB**), Infrastructure Services (**IS**) or PMA Consultants LLC, 226 West Liberty, Ann Arbor, MI 48104 (313-769-0530).

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STATE OF MICHIGAN
MICHSPEC™ MODEL SPECIFICATIONS
FIRM-PRICE CONSTRUCTION CONTRACTS
DEVELOPED FROM FORMSPEC™ MICHIGAN MODEL

STATE OF MICHIGAN MICHSPEC™ MODEL SPECIFICATIONS:

MODEL BIDDING REQUIREMENTS:

MICHSPEC™ No.	TITLE
97.0820-00020	SECTION 00020 GLOSSARY
97.0820-00100	SECTION 00100 INSTRUCTIONS TO BIDDERS
97.0820-00300	SECTION 00300 BID FORM
97.0820-00310	SECTION 00310 BID BOND
97.0820-00320	SECTION 00320 NONCOLLUSION AFFIDAVIT
97.0820-00400	SECTION 00400 QUALIFICATION SUBMITTALS

MODEL CONTRACT FORMS AND CONDITIONS OF THE CONTRACT:

MICHSPEC™ No.	TITLE
97.0820-00500	SECTION 00500 AGREEMENT
97.0820-00610	SECTION 00610 PERFORMANCE BOND
97.0820-00620	SECTION 00620 PAYMENT BOND
97.0820-00700	SECTION 00700 GENERAL CONDITIONS

MODEL DIVISION 1 SPECIFICATIONS:

95.0820-01310	SECTION 00310 PROGRESS SCHEDULE (CPM, SHORT FORM)
95.0820-01310	SECTION 00310 PROGRESS SCHEDULE (BAR CHART)

STATE OF MICHIGAN PROTOTYPE SPECIFICATIONS:

MICHSPEC™ No.	TITLE
97.0820-00010	SECTION 00010 DIVISION 0 TABLE OF CONTENTS
97.0820-00030	SECTION 00030 ADVERTISEMENT
97.0820-00110	SECTION 00110 ATTACHMENT A TO INSTRUCTIONS TO BIDDERS
97.0820-00120	SECTION 00120 SUPPLEMENTARY INSTRUCTIONS
97.0820-00210	SECTION 00210 INFORMATION FOR BIDDERS
97.0820-00520	SECTION 00520 ATTACHMENT A TO AGREEMENT
97.0820-00800	SECTION 00800 SUPPLEMENTARY CONDITIONS

REVISION 1, NOVEMBER 15, 2001

TABLE OF CONTENTS

	<u>Page</u>
FOREWORD	00990-01
READING THE CD-ROM	00900-01
PREPARING BIDDING DOCUMENTS FOR ADVERTISEMENT	
Section 00010 Table of Contents	00990-02
Section 00030 Advertisement	00990-03
Section 00100 Instructions to Bidders	00990-04
Section 00110 Attachment A to Section 00100	00990-06
Section 00120 Supplementary Instructions	00990-06
Section 00210 Information for Bidders	00990-15
Section 00300 Bid Form	00990-24
Section 00310 Bid Bond	00990-30
Section 00320 Noncollusion Affidavit	00990-30
Section 00410 Bid Breakdown	00990-31
Section 00420 Questionnaire	00990-36
Section 00430 List of Subcontractors	00990-36
Section 00440 Schedule of Materials and Equipment	00990-37
Section 00500 Agreement	00990-39
Section 00520 Attachment A to Agreement	00990-41
Section 00610 Performance Bond	00990-44
Section 00620 Payment Bond	00990-44
Section 00700 General Conditions	00990-44
Section 00800 Supplementary Conditions	00990-44
PREPARING CONTRACT DOCUMENTS FOR EXECUTION	
Bid Form and Bid Form Attachments	00990-64
Qualification Submittals	00990-64
Section 00500 Agreement	00990-64
Section 00520 Attachment A to Agreement	00990-66
Section 00610 Performance Bond	00990-66
Section 00620 Payment Bond	00990-66
SECTION 01310 PROGRESS SCHEDULE	00990-67

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This *Guide to Specifiers* has been developed for use with the State of Michigan MICHSPEC™ Model Specifications. Title to and use of any part of this *Guide* is strictly restricted. Except as authorized in writing by the State of Michigan, Department of Management and Budget, Infrastructure Services, or as may be appropriate for its use in the preparation of bidding documents or contract documents, reproduction, translation or substantial use or quotation of any part of any of this *Guide* beyond that permitted by the 1976 United States Copyright Act without prior written authorization is unlawful. Requests for information about the FORMSPEC™ Model Specifications

should be made to PMA Consultants LLC, 226 West Liberty St., Ann Arbor,
MI 48104.

FOREWORD

This **Guide** has been written to aid specification writers (i.e., specifiers) in the completion of Division 0 Specifications when using the new **State** of Michigan Owner–Contractor Model Contract Documents. The State Model Specifications, known as MICHSPEC™, represent a custom version of the FORMSPEC™ Michigan Model, 1997 Edition [1], a system of model specifications developed by PMA Consultants LLC, dating back to 1986.

As is the case with other model Division 0 specifications, before Bidding Documents can be finalized and advertised, the **Specifier** will need to complete Prototype Sections by entering both project-specific information in designated provisions and supplementary/special provisions to those in Model Sections. Such information as Contract Price in Section 00500 Agreement, signatures of the parties, completion of Section 00610 Performance Bond, etc. will be taken care of after the Notice of Award is issued and before actual Contract Award.

A special feature of this **Guide** consists of sample provisions illustrating how other, similar FORMSPEC™ Specifications have been used by specifiers on public contracts. Such sample provisions are presented either in full-page width or two column format, and are screened for ease of reference.

FORMSPEC™ represents a system of Division 0 and selected Division 1 Specifications numerically aligned with the system of numbers and titles used in the 1988 Edition of MASTERFORMAT [2]. MASTERFORMAT is a list of specification numbers and titles for the Construction Industry published by the Construction Specifications Institute (CSI). Many of the Specification numbers in MASTERFORMAT were revised in 1995 [3], and the FORMSPEC™ system of Division 0 specification numbers are no longer consistent with CSI's. For instance, FORMSPEC™ places all forms required with the Bid in the 300 series of Sections, and all qualification forms required of the Apparent Low Bidder after Bid opening in the 400 series of Sections. The 1995 Edition of MASTERFORMAT places the Bid Form, Bid Form Attachments and qualification forms due after Bid opening all in the 400 series of Sections.

In the **State Model**, the **Owner** is the **State** of Michigan. The **State** may retain the design professional or another firm to carry out the duties, responsibilities and authority assigned to the **Professional Services Contractor (Professional)**. If the **State** intends to fulfill the role of the **Professional** itself on a given contract, that fact will be noted in Section 00800 Supplementary Conditions or at the pre-construction conference.

Capitalized and other defined terms used in this **Guide** have specific intent and meanings assigned, as stated in Section 00020 Glossary.

READING THE CD-ROM

The Owner-Contractor documents on the CD-ROM are in Microsoft® Word 97 format. Refer to the document DISK_TOC.DOC on the CD for a listing of file/specification names. Note that the files are categorized as data-only and read-only. The read-only files can be transferred to the hard drive and printed, but have been protected from being altered. The data-only files can be transferred to the hard drive and altered only to complete the form, no text is to be changed.

PREPARING BIDDING DOCUMENTS FOR ADVERTISEMENT



Remove this **Guide**, including Cover and Title pages (Section itemization), and their respective blank back pages, from the Division 0 package received from the **State**. Also, remove the two Cover and Title pages to Division 0, including their respective blank back pages. This will leave page 00010-1, Table of Contents, as the first page of the Division 0 Specifications package.



Pages in prototype Sections do not include the MICHSPEC™ trademark in the footer, left hand corner, whereas Model Sections do. Some Model Sections having schedules on specific pages to be set up by the **Specifier** also exclude the MICHSPEC™ trademark on those pages.

SECTION 00010 TABLE OF CONTENTS



Section 00010 is a prototype Section, however, it should not be modified without prior approval from the **DMB**.

Page 00010-1



Under **SECTION 00120 SUPPLEMENTARY INSTRUCTIONS**, for each supplementary instruction Article used by the **Specifier** in Section 00120, if any are drafted, enter, in the designated location, the Article number (i.e., **Article SI-??**) and Title, as used in Section 00120. If no instructions are specified and Section 00120 is not used, enter the words **"NOT USED"**.



Under **SECTION 00210 INFORMATION FOR BIDDERS**, enter, in the designated underlined locations, the appropriate page numbers for Articles 2 through 5, respectively.



Under **SECTION 00300 BID FORM**, enter, in the designated underlined locations, the appropriate page numbers for Article 7 (Schedule of Change Order Prices), Article 8 (Bid Submitted) and the documents evidencing authority.



If additional Bid Form Attachments or Qualifications Submittals are used, there will not be sufficient room on Pages 00010-1 and 00010-2 to accommodate the added forms, and Pages 00010-1 and/or 00010-2 will need retyping. The **Specifier** will need to ensure that headers and footers (top and bottom of each page) remain consistent with those in the package obtained from the **State** (i.e., **Infrastructure Services**).

Page 00010-2



Under **SECTION 00520 ATTACHMENT "A" TO AGREEMENT**, for each Article specified in Section 00520 by the **Specifier**, if any are specified, enter, in the designated location, the title for each supplementary term and condition (i.e., **SUPPLEMENTARY TERMS AND CONDITIONS TO ARTICLE ?**), exactly as in Section 00520 Attachment "A" to Agreement. If no terms and conditions are used and Section 00520 is not used at all, enter the words **"NOT USED"**.

Page 00010-4



Under **SECTION 00800 SUPPLEMENTARY CONDITIONS**, for each Article used by the Specifier, if any are specified, enter, in the designated location, each Article number (i.e., SC-??: SUPPLEMENTARY CONDITIONS TO ARTICLE ??) exactly as used in Section 00800. If no supplementary conditions are specified by the **Specifier** and Section 00800 is not used, enter the words "**NOT USED**".

SECTION 00030 ADVERTISEMENT



Section 00030 is a prototype Section and, if retyped, the page numbers in the **TABLE OF CONTENTS** (page 00010-1) should be consistent with the pages in the retyped Advertisement. Assuming that the Specifications are to be printed on two-sided paper, a filler blank page is required if the retyped Section 00030 Advertisement uses an odd number of pages. If retyped, ensure that headers and footers remain consistent with the nomenclature provided in the prototype model specifications package.

Completing Blanks on Page 00030-1



Complete all blanks in Articles 1 (Bids), 2 (Work Description), 3 (Bidding Documents), 5 (Pre-Bid Conference), 8 (Contact Person), and 9 (Award). Consult with the **State** for (a) the date of Bid opening; (b) an appropriate name/title for "the Work"; (c) the appropriate **State** Agency No.; Index No. and File No. for the Work; (d) the amount of the deposit per set of Bidding Documents; (e) pre-bid conference arrangements; and (f) how long are Bids to be held open for acceptance by the **State** (i.e., the length of the Bid hold period). Generally, the **State** specifies Bid hold periods ranging from 30 to 90 Calendar Days.



The Bid opening deadline is given as 2:00 P.M., which generally means that Bids will be accepted until 2:00:59 P.M. This interpretation should withstand challenge if the clock used to establish the time does so in hours and minutes only.



The **Specifier** should entitle the Work and enter the Agency No., Index No. and File No. in the spaces provided in Article 2. The Work title shall then be used verbatim, or at least consistently, in several other places: (a) Section Headers, e.g., Attachment A to Section 00100, Bid Form Attachments, Qualification Submittals, Section 00120 Supplementary Instructions, etc., (b) Article 1 of the Agreement, (c) the Bond forms, and (d) any other provision referring to "the Work."

If appropriate, the space allotted in Article 2 for a summary description of the Work may end with "...and as further described in the Specifications..." or some similar statement.



In Article 8, it is intended that the person to be contacted by prospective Bidders and others interested in the Work shall be the designated **State** or **Professional** representative, who, by the way, shall be **State** and **Professional's** only point of contact.



Bid hold periods for award of contracts by the **State** need to reflect the condition that Contract Award means acceptance of the Bid by the **Director** of the Department of Management and Budget, as opposed to recommendation from the **Director** of the Infrastructure Services (**Director-IS**) for Contract approval. Contract Award comes upon notification to the Apparent Low Bidder that the **Director**, Department of Management and Budget has approved acceptance of that Bidder's Bid. Article 15 of Section 00100 Instructions to Bidders outlines the steps involved in awarding construction contracts by the **State**.



The Bidding Documents do not assume one way or another whether the entire text of Section 00030 Advertisement was used in the legal advertisement. In fact, according to senior attorneys from the Department of the Attorney General, the **State** generally publishes an abbreviated legal advertisement (when compared with the Section 00030 Advertisement printed and made available with the Bidding Documents).

SECTION 00100 INSTRUCTIONS TO BIDDERS



Section 00100 Instructions to Bidders is a Model Section and no modifications *physically* in this Section are allowed. If any part of Section 00100 requires amending or if additional instructions are needed, the **Specifier** can use Section 00120 Supplementary Instructions to carry out those bidding requirements.



In the process of securing trade group comments on MICHSPEC™, it became necessary to clarify, for first-time FORMSPEC™ users, the intent of certain paragraphs in Section 00100 Instructions to Bidders. Those clarifications are summed up as follows:

Paragraph 1.4 – This provision enjoys a long standing in the construction industry. It refers to bidders using incomplete sets of Bidding Documents, such as when a trade bidder relies solely on one Section or Division of the Specifications, as opposed to using all Sections of the bidding documents to avoid overlooking coordination issues. This provision does not make bidders assume risk for incomplete sets of Drawings and Specifications, i.e., risk of incomplete design.

Paragraph 2.2 – The requirement for submission of a pre-award schedule is not related at all to the requirements to submit the Progress Schedule required under Section 01310 Progress Schedule and intended to be used to manage the Contract. Paragraph 2.2 has been reworked to, hopefully, clarify this. Since the **Specifier** selects the Progress Schedule specification anyhow (generally, Section 01310) it is appropriate for the **Specifier** to determine the form of schedule (i.e., bar chart or CPM) which is suitable for a pre-award schedule on a project-by-project basis. The pre-award schedule is not to intended to be used to manage the job after Contract Award.

Paragraph 3.2 -- This paragraph must be read together with paragraphs 3.4 through 3.7. Paragraph 3.2. is an often-used provision in industry contracts. What makes this paragraph work is the qualifier at the beginning "...take those steps that are reasonably necessary..." This risk sharing posture is well established in construction contracts.

Paragraph 3.4.1 – This paragraph follows industry standards as to what constitutes reasonable reliance on the site conditions data made available by the **State** [4]. There is no intent in paragraph 3.4.1 to shift risks of incomplete or inadequate design to the Bidders. The issue addressed by this paragraph is whether the **Contractor's** reliance is reasonable or not. If reasonable, conclusion is enforceable. Reliance at the bidder's own risk does not mean that the bidder has no recourse if Authorized Technical Data is wrong. On the contrary, that may represent a case of materially differing conditions recoverable under Section 00700 paragraph 10.2.

Paragraph 3.4.2 -- This provision identifies other data (e.g., old borings, previous inspection reports, etc.) which have not been used by the **Designer**. Disclosure that such information exists is to avoid a later charge that the **State** withheld the information from bidders. There is no conceivable tie between this provision and an attempt to shift design responsibility.

Paragraph 3.7 – This paragraph as worded, makes it the bidder's option, however, the bidder is responsible whether the bidder conducts any additional reasonable investigations or chooses to get by without any. Note that a reasonable investigation does not necessarily connote a subsurface investigation. If the information made available by the **State** does not provide certain data the bidder considers necessary, then this paragraph 3.7 deals with the well-established duty by bidders to undertake a reasonable investigation of the relevant conditions. In public contracts, this has not been interpreted to extend to subsurface investigations, rather, at what can be discerned from a visual inspection, pit excavation and like steps. Paragraph 3.7 does not pertain to activities by Miss Dig. Provisions dealing with locating underground utilities are in paragraph 10.3 in Section 00700.

Paragraph 8.2 – This provision as worded strikes a reasonable compromise between the interests of the **Owner, Contractor** and Subcontractors. On a large contract, it is unlikely that the successful bidder can know who all the low subcontractors are on the day bids are opened, thus the two (2) days. For further insight, refer to the written comments of other members of the work group.

Paragraphs 11.6, 12.3 and 14.4 – All these provisions state that "...the decision of the **Board** shall be final and binding..." May have asked how can this be? The answer is that, for the purpose of the administrative procedure provided, that is so; however, that is not to negate that a protesting Bidder may have other rights under the Law.



Other provisions in Section 00100 Instructions to Bidders that may require supplementing, such as those provisions related to site conditions, the use of Allowances or Alternates, specified materials and equipment, substitutions, etc., are discussed when covering Section 00120 Supplementary Instructions.

ATTACHMENT A TO SECTION 00100: BIDDER'S CHECKLIST



To avoid ending up with conflicts between the advertised Section 00110 and changes made by Addenda, Attachment A to Section 00100 is best re-issued with each and every Addendum.



Attachment A to Section 00100 is a prototype Section and, if retyped, make sure that the headers (top of page) and footers (bottom of page) remain consistent with the sample provided. If the retyped Attachment consumes an odd number of pages, a filler blank page will be required to ensure proper order when two-side printing of the Specifications is required.

Page 00110-1



Complete the blanks in the Title Block (i.e., "**Professional**", "**Work**", "**Agency No.**", "**Index No.**", and "**File No.**") using the respective information provided in Article 2 of Section 00030 Advertisement.



Also, calculate and enter dates in the blanks relating to the two events taking place **BEFORE BID OPENING**. The first date, consistent with paragraph 7.2 of Section 00100, should be calculated as fourteen (14) Calendar Days before the date of Bid opening. The second date, consistent with paragraph 4.1 of Section 00100, should be calculated as seven (7) Calendar Days before the date of Bid opening.



Both these deadlines are to be calculated against *the date* of Bid opening, not *the time* of Bid opening. Theoretically, if Bids are to be opened at 2:00 P.M. on October 23, questions or inquiries will not be answered unless received by the close of business on October 15, as this leaves seven (7) full days before October 23. Based on paragraph 7.1, the deadline date for product proposals is October 8th.



If the **Specifier** uses additional Bid Form Attachment(s), those shall be reflected in the itemization on this Attachment A (this will expand the itemized paragraphs beyond the five (5) on the prototype). Prior approval from the **State** is required for additional Bid Form Attachments.

SECTION 00120 SUPPLEMENTARY INSTRUCTIONS



Conceivably, Section 00120 Supplementary Instructions may be used to supplement any *Bidding Requirement* (i.e., Section 00100 Instructions to Bidders through Section 00440 Schedule of Manufacturers and Suppliers). Just the same, and since most Bid Form Attachments and Qualification Submittals are fairly standard, it is likely that Section 00120 Supplementary Instructions will principally be used by the **Specifier** to modify only Section 00100 by means of supplementary instructions.



Section 00120 Supplementary Instructions is a prototype Section and, if retyped, make sure page headers and footers remain consistent with the sample provided. If the retyped Section uses an odd number of pages, a filler blank page will be required to ensure proper order when two-side printing of the Specifications is required. If no supplementary instructions are required and the **Specifier** does not intend to use Section 00120 in any way, the **Specifier** may simply type in the Section 00120 Heading and center the words **NOT USED** on the otherwise blank page.

Opening Paragraph

The prototype Section 00120 included with the Model Specifications includes a recommended opening statement for the Supplementary Instructions, but does not include a Table of Contents. A Table of Contents is advised if Section 00120 exceeds five (5) pages and/or additional articles are added.



Insofar as Section 00100 Instructions to Bidders, the **Specifier**, through the use of Section 00120 Supplementary Instructions, may: (a) completely revise an existing paragraph, (b) amend parts of an existing paragraph, (c) add a whole new paragraph, (d) add some language to an existing paragraph, or (e) add a whole new Article to Section 00100 Instructions to Bidders. Examples of suggested related language follow:

(a) When completely superseding a paragraph of the Instructions to Bidders, the following language may be used:

SI-2.2. Delete paragraph 2.2 of Section 00100 Instructions to Bidders in its entirety and insert the following in its place: "_____"

(b) To amend an existing paragraph in the Instructions to Bidders, the following language may be used:

SI-2.1. Amend the first sentence of paragraph 2.1 of Section 00100 Instructions to Bidders to read as follows (or by striking out the following words): "_____"
and as so amended paragraph 2.1 remains in full force and effect.

(c) To add language to an existing paragraph of the Instructions to Bidders, the following language may be used:

SI-4.3. Add the following language at the end of the first sentence of paragraph 4.3 of Section 00100 Instructions to Bidders: "_____"

(d) To add a new paragraph to Section 00100 Instructions to Bidders, the following language may be used:

SI-15.10. Add a new paragraph immediately after paragraph 15.9 of Section 00100 Instructions to Bidders which is to read as follows:

"_____"

EXAMPLES OF POTENTIAL SUPPLEMENTARY INSTRUCTIONS



Following are a number of examples of potential supplementary instructions that the **Specifier** may deem appropriate for specific projects, depending on the circumstances.

SI-2: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 2 QUALIFICATIONS OF BIDDERS

SI-2.1 Qualification Submittals



If a particular contract calls for additional Qualification Submittals over the standard ones itemized in Section 00100, paragraph 2.1, the **Specifier** shall use an appropriate supplementary instruction to amend the list provided in paragraph 2.1.



Paragraph 2.2 makes reference to a *CPM* Schedule or a Bar Chart Schedule. If Section 01310 Progress Schedule calls for Bar Chart vs. CPM schedules, a Bar Chart Schedule would be the preferred option in paragraph 2.2. In such case, this paragraph should be amended to require the Pre-Award Schedule in Bar Chart form.



Consider the following text that may be used in that regard:

SI-2.2 Delete paragraph 2.2 of Section 00100 Instructions to Bidders and insert the following in its place:

2.2. The Pre-Award shall consist of six (6) blue line drawings of a summary Gantt Chart. The Summary Gantt Chart shall (a) show the sequencing in which the Bidder plans to perform the Work to conform to the Contract Times and those sequences of Work indicated in or required by the Bidding Documents; (b) identify starting and completion dates for the Work in summary form; and (c) include a plot with monthly percentages of completion of the Work correlating to the rate of progress shown in the summary Gantt Chart.

SI-3: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 3 BIDDING DOCUMENTS; SITE CONDITIONS; LAWS

SI-3.2 Conditions At or Adjacent To the Site



Paragraph 3.2 holds Bidders responsible for accounting, within their Bids, for prevailing conditions at or adjacent to the site. In some cases, some of those conditions may have been studied in the design phases of the Project, perhaps as part of a biddability or a constructability review. If so, the **Specifier** may use a supplementary instruction to provide that information or direct Bidders to those Sections which do so.

SI-3.4.2 Information Not Used by the Professional



Paragraph 3.4.2 indicates that Section 00210 Information for Bidders identifies additional (a) reports of subsurface explorations and tests of subsurface conditions, and (b) reference documents reflecting physical conditions of existing surface and subsurface facilities that have not been used by the **Professional** in the preparation of the Bidding Documents.

The rationale for providing such information is provided in the discussion of Section 00210 Information for Bidders. If the **Specifier** knows of no such reports and reference documents, or simply does not wish to provide such information, the **Specifier** could amend the Bidding Documents by deleting paragraph 3.4.2 by supplementary instruction. This action will require a consistent treatment when the **Specifier** completes Section 00210, paragraphs 2.2 and 3.2.

SI-3.12 Concerning Work by Others



If the **Infrastructure Services** or **Professional** is aware of other work at the site which may be ongoing during the course of this Contract, the **Specifier** may supplement paragraph 3.12 of Section 00100 Instructions to Bidders by providing data about such other contracts or directing the Bidders to those Specifications providing such information in more detail.

SI-4: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 4 INTERPRETATIONS; ADDENDA



Except for the Addenda which solely revises the date of Bid opening, the **State** Model states that any Bidder who incorrectly acknowledges Addenda will be disqualified from consideration for the award (refer to discussion on Section 00300 Bid Form).

SI-7: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 7 MATERIALS AND EQUIPMENT



It is common practice with **Specifiers** to describe materials or equipment by naming two or more brands, makes, suppliers or manufacturers—while allowing **Contractors** to propose and, if acceptable, use "or equal" or substitute materials or equipment of manufacturers and/or suppliers that actually were not expressly named in the technical Specifications. Generally, named or specified materials or equipment are those in use by the **State** or result from investigations of the market place conducted by the **Designer** during the design of the Project.

There is no prevailing rule, on the other hand, about the extent to which Bidders may use "or equals" or substitutions *when pricing their Bids*. One approach (open specification) makes it permissible for Bidders to price "or equal" or substitute items in their Bids (as opposed to using only materials and equipment named or specified). Proponents maintain that this approach opens competition as it does not give any bidding advantage to the named vendors. In fact, some contractors claim that they have at times won Bids by using lower priced "or equal" or substitute materials and equipment. Opponents, on the other hand, advance that: (a) a lower-priced "or equal" of higher life-cycle costs offers no advantage to the **Owner** or operator, (b) a lesser known or unproven "or equal" or substitute material or equipment may pose unacceptable risks for the **Owner** or operator, and (c) the particular, proposed "or equal" or substitute materials and equipment may not have been named in a Section of the technical Specifications on purpose, and it is counterproductive to allow Bidders to bid such items of materials and equipment after all.

An alternate approach (conditional specification) places a temporary condition upon Bidders by (a) requiring Bidders to price within their Bids *only listed materials and/or equipment* (i.e., named or specified in the

Specifications), even if the Specifications allow the use of "or equals" or substitutions, but (b) allowing post-award proposals for "or equals" or substitutions. Depending on what the Contract Documents provide, any post-award cost savings resulting from the use of "or equals" or substitutions will be shared by the **State** and **Contractor** or instead accrue in their entirety to the **State**. This conditional approach negates the bidding advantage that any Bidder could have gained by pricing lower-priced "or equal" materials or equipment; lower Bids will reflect other pricing factors. Undeniably, it allows the **State** to establish the Contract Price at award based on comparable materials and equipment. Furthermore, as far as the **State** is concerned, it simply defers, until after award, the opportunity to realize cost savings from the use of "or equal" or substitute materials and equipment, as long as they are accepted as such by the **Professional**.

These approaches have been discussed at various workshops with owners, consultants and contractors in many States, including Michigan. As a result, Section 00100, Article 7, and Section 00440 Schedule of Manufacturers and Suppliers strike the following compromise: (a) the conditional approach will be enforced for those Specification Sections *listed* in Section 00440 (advertised or revised by Addenda), unless any such Section expressly provides that no "or equal" or substitution will be allowed, and (b) the open specification approach will be allowed for Sections *not listed* in Section 00440, unless any such Section expressly provides that no "or equal" or substitution will be allowed.

Some additional comments as to how these provisions are intended to work may be helpful to **Specifiers**. The advertised Bidding Documents will name certain manufacturers and suppliers for some, most or all Specifications, based on the **Designer's** professional's judgment. For those Specifications listed in paragraph 1.6 in Section 00440, the **Professional** will accept, up to fourteen (14) Days before the date of Bid opening, applications from non-named vendors seeking to have their products added to the list of named or specified materials and equipment. Any such proposed products that, in the **Professional's** judgment, can also be used to establish a standard and describe the required materials or equipment will be added to the Bidding Documents by Addenda. For those Specifications *listed* in Section 00440, Bidders shall price and bid named or specified materials and equipment *only*, including any items added by Addenda, even if the corresponding Specifications state that an "or equal" or a substitute item may be furnished or used for that item. For those Specifications *not listed* in Section 00440, Bidders *are not restricted* to pricing named or specified materials and equipment only, unless the corresponding Specification state that no "or equal" or substitutions are permitted. Furthermore, for those Specifications *listed* in Section 00440 (a) the Contract will be awarded on the basis that only named or specified items will be furnished or used, and (b) no applications for "or equal" or substitute materials or equipment will be considered by the **Professional** between the period starting fourteen (14) Days before Bid opening and ending upon award of the Contract.

Last, but not least, if the **State** or **Professional** wish to disallow "or equal" or substitute materials or equipment for any Section of the Specifications, the words "no 'or equal' or substitution allowed" shall follow any named manufacturers or suppliers.

Article 7 was written to avoid the risk that an uninformed Bidder misconstrue the **State's** procedure for bidding materials and equipment. Conceivably, if "or equal" and substitute items are allowed by the Bidding

Documents, an uninformed Bidder could mistakenly conclude that the Bid could be based on the prices of "or equal" and substitute materials and equipment. Assuming that informed Bidders bid only named or specified products, and that named or specified materials and equipment are more costly, such error(s) could potentially make the Bidder in error the low Bidder. Such outcome, whereby a correct Bidder is high because another Bidder erroneously bids lower-priced "or equal" or substitute materials and equipment, contrary to the requirements of the Specifications, would undermine the **State's** goals. Bidders' attention should be directed to this Article 7 at the pre-Bid conference, not by repeating what is stated in Article 7, but rather, by making reference to the fact that Article 7 may be different to similar provisions used by others and warrants close scrutiny.

SI-8: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 8 SUBCONTRACTORS

SI-8.1 Nominating Subcontractors



Paragraph 8.1 of Section 00100 Instructions to Bidders requires the Apparent Low Bidder to nominate in Section 00430 List of Subcontractors each Subcontractor to whom that Bidder intends to award a Subagreement for Work corresponding to the *listed* Divisions, Specification Sections and/or trades of Work. It is anticipated that the **Specifier** will consult with the **State** to ensure that Specifications, Divisions and trades considered pertinent by the **State** are *listed* in this Section 00430.

The rationale for this disclosure is as follows. Determining if the Bidder is responsible and eligible necessitates evaluation of the key Subcontractors (and verification that they hold any licenses imposed by any State instrumentality or Political Subdivision with jurisdiction). As provided in paragraph 8.2, the **Owner** is afforded the opportunity to object to any nominated Subcontractor before making the award. If the objection is for good cause, and the **Owner** requests removal or replacement of any nominated Subcontractor, the Apparent Low Bidder may decline and withdraw, without forfeiting its Bid Bond, or self-perform that trade, if qualified, or name a replacement Subcontractor, in either case at no increase in the Bid hold period or the Bid.



It is also important to keep in mind that this requirement to nominate Subcontractors survives the award of the Contract, since any Subcontractor nominated for any *listed* Division, Specification Section and/or trade *for the first time* after Contract Award and who is objected to by the **Owner**, for good cause, shall be replaced by the **Contractor** at no increase in Contract Price and/or Contract Time. Under this condition, the Apparent Low Bidder is not forced to rush nomination of a Subcontractor with whom a Subagreement is yet to be finalized, but by the same token, the Apparent Low Bidder cannot side step this requirement simply by holding off nominating Subcontractors until after Contract Award.

SI-9: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 9 PREPARATION AND SUBMISSION OF BIDS

SI-9.1 Documents Required with A Bid:



Paragraph 9.1 has been coordinated with paragraph 10.3 and with Attachment A to the Instructions to Bidders. According to these three paragraphs, a second unbound set consisting of Section 00300 Bid Form, Section 00310 Bid Bond and Section 00320 Noncollusion Affidavit will be made available to prospective Bidders who obtain a set of Bidding Documents. Those unbound forms shall in turn be used to deliver the *Bid*, which means that Bidders are not required to turn in the Project Manual or Drawings with their Bids.

SI-10: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 10 PREPARATION AND SUBMISSION OF BIDS

SI-10.6 Use of Cash Allowances



The use of "Allowances" requiring Bidders to include **Specifier**-designated amounts within their Bids is a well known concept in construction contracting. Traditionally, allowances, also called "cash allowances", are generally used when there was sufficient information in the Drawings and/or Specifications on the quantities for an item of Work, but there is insufficient information as to quality, appearance, durability, finish, strength and/or such other characteristics affecting the purchase price of the material or equipment in question. Because the scope of Work involved in completing a Cash Allowance can be taken-off, it is understood that the labor costs, Subcontract costs, construction equipment costs, general conditions costs (supervision, insurance and Bond premiums, etc.) and Fee required to unload, store, install, test, punch list and otherwise complete the Work of the Cash Allowance have been priced and included within the other parts of the Bid *and not within* the Cash Allowance. The Cash Allowance is intended to cover only the purchase and delivered price of the material, equipment, permit or other item which is the subject of the Cash Allowance in the first place.

Cash Allowances have notoriously been used in such situations as when the square feet of area to be carpeted or tiled is known, but the grade of carpet or tile is yet to be determined; when Work to be performed by a third party is to be assigned to the **Contractor** (i.e., hook-up by a Public Utility), but the **Owner** elects to negotiate a price for that Work with the Public Utility directly; when it is known that a permit will be required, but it is uncertain what the cost of the permit will be in advance of the time when the Work is to be performed; and so forth.

MICHSPEC™ employs the concept of Cash Allowance as explained above. Nonetheless, **Specifiers** ought to make sure that provisions used to specify a Cash Allowance are consistent with the following: (a) the definition of Cash Allowances, as provided in Section 00020 Glossary, (b) what pricing factors are Bidders to include within their Bids, as described in Paragraph 10.6 of Section 00100 Instructions to Bidders; and (c) what costs will be covered by payments made under a Cash Allowance, as specified in paragraph 10.7 of Section 00700 General Conditions.

SI-10.6 Use of Provisionary Allowances



Paragraph 10.6 of the Instructions to Bidders also makes reference to "Provisionary Allowances". In the **State Model**, a Provisionary Allowance is a *contingent* sum established by the **Owner** to fund changes in the Work that are foreseeable but are either uncertain (i.e., may not

happen) or are of indeterminate scope (i.e., quantities are not known or detailed in the Contract Documents), or both. Provisionary Allowances have commonly been used to include in the Contract Price an amount to reimburse the **Contractor** for: (a) overcoming inaccurately shown Underground Utilities or as-built records of questionable accuracy; (b) unspecified, but to be *directed, State*-requested overtime; (c) overcoming the unexpected discovery of Hazardous Materials; and (d) the excavation and disposal of *known* materials of *unknown* quantities; etc. Fundamentally, the **Contractor** can neither perform any Work nor request payment under any Provisionary Allowance, unless the **Professional** has previously authorized that Work.

Unlike a Cash Allowance, *Bidders are not, and have no objective way*, to include any additional monies, within their Bids, to cover Work that may be required if the Provisionary Allowance is tapped, except for insurance and Bond premiums. Since the Contract Price includes the Provisionary Allowance, and insurance and Bond premiums are set as a percentage of the Contract Price, it is understood that such premiums are already included elsewhere within the Bid. On the other hand, any increase in Contract Price due to changes ordered under a Provisionary Allowance that are more costly than the Provisionary Allowance will require an appropriate amount to reimburse the **Contractor** for the additional insurance and Bond premiums.

A Provisionary Allowance ought to be intended for a specific purpose. Open-ended Provisionary Allowances may be subject to misuse and should be discouraged. In any event, **Specifiers** ought to make sure that specifications for a Provisionary Allowance are consistent with the following: (a) the definition of what a Provisionary Allowance is (refer to Section 00020 Glossary); (b) what pricing factors are Bidders to include within their Bids, as described in Paragraph 10.6 of Section 00100 Instructions to Bidders; (c) that the Cost of the Work ordered under a Provisionary Allowance shall be determined pursuant to Article 10 of Section 00700 General Conditions, as specified in paragraph 10.7 of Section 00700 General Conditions; and (d) and what costs will be covered by payments made under a Provisionary Allowance, also as stated in paragraph 10.7 of Section 00700 General Conditions.

It should be mentioned that, per Section 01310 Progress Schedule, it is presumed that the **Contractor** has taken or will take appropriate measures to complete Work ordered under designated Provisionary Allowances within the limits of the Contract Times. The presumption that such is reasonable may be challenged to the extent that (a) any Work ordered under a particular Provisionary Allowance will be necessarily performed out of sequence with other similar work, or (b) all Work ordered under all Provisionary Allowances exceeds two percent (2%) of the Contract Price for new construction scope.

SI-10.7 Use of Alternates



The use of "alternates" in a Bid is also a well-established practice in construction contracting. Alternates are used by specifiers when: two different, competing material specifications are acceptable (e.g., bituminous and concrete pavement). Alternates are also used when pre-bid estimates indicate that Bids for the Work reflected in the Drawings and Specifications may exceed the funds available for construction, however, parts of the Work can be segregated as *Alternate Work* which may then be incorporated into the Contract depending on Bids received. In some instances, an Alternate has been used when an alternate price for an accelerated or decelerated schedule of performance is sought.

Under a lump-sum contract, when no Alternates are specified, Bidders may be asked to price one or several lump sum Bid items, unit price Bid items, Allowances, etc., all of which will be summed up to one, single (total) Bid Price for the entire Work. On the other hand, when Alternates are specified, each Bid has (a) a Bid price, excluding Alternates, generally called the "Base Bid", (b) a separate Bid price for each Alternate, and (c) a Bid price combining the Base Bid and all Alternates.

The **State Model Specifications** were purposely made to include the **Specifier's** ability to use Alternates. The **Specifier** shall obtain the consent of the **Infrastructure Services** if the **Specifier** recommends using Alternates. Several Sections include provisions dealing with Alternates, namely Section 00100 Instructions to Bidders, Section 00300 Bid Form and Section 00310 Bid Bond.

In general, references to "the Bid" typically use the phrase "the Base Bid plus all Alternates." Also, Article 6 of the Bid Form has paragraph 6.1 for the Base Bid Schedule and paragraph 6.2 for the Schedule of Alternates. If the **Specifier** does not intend to specify any Alternates, paragraph 6.2 (Schedule of Alternates) in the Bid Form should state "**NONE**" versus leaving a blank.

The **Specifier** should also note that paragraph 14.1.1 of the Instructions to Bidders establishes the basis for determination of the lowest Bidder when Alternates are used. As indicated in that paragraph, the determination is based on a selection of the Base Bid plus any Alternates accepted according to the following rule: "...Alternates shall be accepted in the order listed in paragraph 6.2 Schedule of Alternates in Section 00300 Bid Form only..." Thus, the listing of Alternates in paragraph 6.2 in the Bid Form needs to consider this criteria.

SI-14: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 14 AWARD OF THE CONTRACT

SC-14.6 Irregularities on Section 00300 Bid Form:



Under the terms and conditions of paragraph 14.6, in the event that any math in any Bidder's Section 00300 Bid Form is in error, the Bid Sum will be left *unchanged*. This means that any Bidder sum or extension will override the respective correct sum and correct product. For instance, if a Section 00300 Bid Form contains an estimated quantity of 1,000 cy, and a Bidder bids \$7/cy but extends the product to be \$70,000, or rather, \$700, then the **Owner** will assume the extension to be correct and accept a unit price of \$70/cy or, rather \$0.70/cy. This procedure matches the **State's** preference for not modifying any Base Bid at all. **Infrastructure Services** personnel rather enforce extended Bid Prices as entered or deal with a Bid withdrawal request, i.e., due to a material error.

SI-16: SUPPLEMENTARY INSTRUCTIONS TO ARTICLE 16 MOBILIZATION PAY ITEM



Paragraph 16.2 of the Instructions to Bidders establishes a limit of four percent (4%) of the Bid for the pay item for mobilization. If not reasonable for the particular contract, the **Specifier** may use

supplementary instructions to Article 16 to modify the specified limits. If any Bidder enters on its Bid Form a percent exceeding the limit, the limit will be used anyhow, but the Bid will not be revised (in accordance with Section 00100 Instructions to Bidders, paragraph 14.6 (e)).

SECTION 00210 INFORMATION FOR BIDDERS



Section 00210 is a prototype Section only to the extent that information and data is to be provided by the **Specifier** as indicated in the discussion that follows.

Information that may be Provided in Section 00210

The prototype Section 00210 contemplates that the **Specifier** will identify four types of information that are provided to Bidders with the Bidding Documents: (a) reports of explorations and tests of subsurface conditions, (b) reference documents concerning physical conditions of existing surface and subsurface facilities, (c) information or data about conditions of existing Underground Utilities, (d) information and data about permits, approvals, licenses and fees secured by the **State** (if any). In addition to completing the respective paragraphs, Section 00210 may be used to provide information pertaining to other site conditions; however, when doing so, Section 00010 Table of Contents will need to be amended as well.

Intent of MICHSPEC™ Site Conditions Provisions



There are four corners to MICHSPEC™ provisions about site conditions. First, paragraphs 3.4 and 3.5 of the Instructions to Bidders indicates that Section 00210 identifies information about site conditions (subsurface, existing facilities and Underground Utilities), and Section 00210 identifies such information and data, and states that it is available from the **Professional** or, in the alternative, is attached to the Bidding Documents (with Section 00210 or in a separate Volume). Second, Section 00300 Bid Form stipulates that by submitting a Bid, a Bidder accepts the risk sharing provisions of the Bidding Documents. Thirdly, differing site conditions provisions for subsurface conditions and existing facilities are contained in paragraph 10.2 of Section 00700 General Conditions. Lastly, responsibilities for Underground Utilities (including differing conditions) are as provided in 1974 PA 53, as amended, MCL 460.701 et seq., and as supplemented in paragraph 10.3 of Section 00700 General Conditions.

If the provisions for sharing responsibilities for subsurface conditions, or physical conditions of existing facilities or Underground Utilities need to be changed for a specific contract, all of the referenced provisions will need to be amended consistently. In the case of Underground Utilities, care must be exercised to remain consistent with the referenced statutory provisions (1974 PA 53, as amended, MCL 460.701 et seq.).

Page 00210-1



Complete Articles 2 through 4. It is recommended that this Section be retyped in its entirety, while retaining page headers and footers. This is a critical Section and it ought to be completed using the

Specifier's judgment and experience, given the insights provided by this **Guide**. Depending on the amount of information used to complete Articles 2 through 4, the number of pages may vary from what is in the prototype. The **Specifier** may need to indicate in Section 00010 Table of Contents the page numbers for Articles 2 through 5, once this Section 00210 has been retyped.

Subsurface Conditions (Paragraph 2.1)



Other than when a single report is to be itemized, the leading sentence in paragraph 2.1 should remain as is. The second sentence could be left as is, or in the alternative, could be rewritten to reflect whether the reports are attached to the Bidding Documents (Procedure A) or whether are available for purchase from the **Professional** (Procedure B). Procedure B has been used in the **State** of Michigan's Model Specifications but such could be amended if appropriate for a particular contract. In using Procedure B, as defined, if several reports are itemized, it is also conceivable that different purchase prices may be applicable to each report and such may be necessary to be dealt with in the retyping of this section.

Typically, **Specifiers** accomplish this by listing out the title of the report, the firm that authored the report, the date of the report, etc. Any report(s) undertaken in the design phases for the Work are to be listed in this paragraph. In addition, such reports prepared for or undertaken as part of previous construction (by the **Professional** or others) and that have been used by the **Professional** in this design also shall be itemized in paragraph 2.1. The **Specifier** may need to make proper arrangements with the **State** if prospective Bidders or others order copies of the reports listed and/or request the opportunity to review the reports at the **Professional's** offices (e.g., prepare a sign-off sheet for Bidders reviewing the reports, make sufficient copies, etc.).

Authorized Technical Data (Paragraph 2.1.1)



Under paragraph 2.1.1, whether so numbered or under a different numbering convention, the **Specifier** shall itemize and describe the information and data contained in those reports that can be properly considered Authorized Technical Data. Section 00020 Glossary provides a definition of what is meant by Authorized Technical Data.



This is a key feature of the provisions concerning site conditions contained elsewhere in the **State's** Model Specifications. Both Section 00100 Instructions to Bidders and Section 00700 General Conditions limit reasonable reliance by Bidders, concerning subsurface conditions (e.g., soils, subsurface water, etc.), to the "Authorized Technical Data" designated as reliable in this sub-paragraph. Depending on project specifics, such data as the boring method, boring plan and logs, laboratory test methods and results, ground water exploration methods and results, and others, may be properly considered technical data and so identified in this paragraph 2.1.1.



An example of paragraphs 2.1 and 2.1.1 follows:

2.0 SUBSURFACE CONDITIONS

2.1. The reports of explorations and tests of subsurface conditions itemized immediately below have been used by the Engineer in the preparation of the Bidding Documents. Those reports are not part of the Bidding Documents, and are available as designated in this Section.

(a) A report entitled (a) "Final Report on Soil Exploration" conducted by Speedie and Associates, dated December 27, 1982. This report was utilized by the Engineer in the preparation of the contract documents for Project Index No. W-811471, Union Hills Water Treatment Plant Stage 1 (1983). Copies of the report are available for review or purchase as stated in the Call For Bids. Each prospective Bidder or any other person wishing to review the report will be required to sign an acknowledgment form.

(b) Logs of Test Borings Numbers B-1 and B-2, an investigation conducted by Speedie and Associates, dated December 4, 1989. The Engineer will furnish, upon request, a copy of these boring logs at no cost.

2.1.1. Information or data contained in those reports that may be properly considered authorized technical data on sub-surface conditions, subject to the exclusions stated, include:

(a) All soil boring technical data given respective of elevations, (as above mean sea level) in areas not excavated during

construction of Project Index No. W-811471, Union Hills Water Treatment Plant Stage 1 (1983), subject to the following: (i) ground surface elevations given on all boring logs were changed relative to the final grading plans; (ii) logs of test borings B-5, B-19, B-20, B-23, B-24 and B-34 no longer reflect sub-surface test results at their respective coordinates due to mass excavation and backfilling during construction of Project No. W-811471, Union Hills Water Treatment Plant Stage 1 (1983).

(b) Data that might properly be considered technical data in the 1989 boring logs upon which Bidders may rely, subject to the differing site condition provisions and other limitations imposed by the Instructions to Bidders, the General Conditions and the other parts of the Bidding Documents, consist of: The technical data given in Logs of Test Borings No. B-1 and B-2.

2.1.2. Data that may be properly considered technical data, non-technical information or data, and interpretations or opinions contained in, or the part of, the 1982 report on which Bidders may not rely include: (a) All information, technical interpretations or references given relative to depth below existing ground surface elevations, since the reference (original site surface conditions) no longer reflect existing conditions, and (b) all other technical data, non-technical data, and interpretations or opinions not expressly itemized in paragraph 2.1.1.



The preceding sample paragraph 2.1.2 complements sample paragraph 2.1.1 by identifying any part of the technical data on the reports that is not to be relied upon. Although this is not a strict requirement, it may be advisable at times.



Another example of how to specifically limit reliance by the Bidders in Section 00210 follows:

2.0 SUBSURFACE CONDITIONS

2.1. The reports of explorations and tests of subsurface conditions itemized immediately below have been used by the Engineer in the preparation of the Bidding Documents. Those reports are not part of the Bidding Documents, and are available for purchase from the Engineer at the prices designated.

(a) Jammal Associates, Inc., dated July 15, 1986, entitled "Draft Report Foundation and soil Study for Lilia Pumping Station, Hillsborough County, Florida" (\$25.00).

(b) PSI, Inc., dated July 20, 1984, and entitled "Standard Penetration Test Borings, Hillsborough County, Florida"

2.1.1.

2.1.2. Data that may be properly considered technical data, non-technical information or data, and interpretations or opinions contained in, or the part of, the PSI report and the boring logs on which Bidders may not rely include:

(a) The PSI report contains technical data which could be erroneous and therefore is information on which the Bidder should not rely. Field notes did not locate borings and as such neither the Owner nor the Engineer warrants their accuracy.

(b) By virtue of the manner in which borings were taken, ground water elevations are likely to be erroneous and are not to be relied upon by Bidder.



Another example of how to deploy the principles of paragraphs 2.1 and 2.1.1 in Section 00210 so they are consistent with other provisions in the model specifications follows:

2.0 SUBSURFACE CONDITIONS

2.1 The report dated June 14, 1990, prepared by Geo-Systems Engineers, Inc. entitled "Subsurface Exploration Scraggs Road Detention Basin Expansion, Lee's Summit, Missouri" has been used by the Engineer in the preparation of the Bidding Documents. That report is not part of the Bidding Documents, and is available for purchase from the Engineer.

2.1.1 Information or data contained in the Geo-Systems report that may be properly considered authorized technical data concerning subsurface conditions include (NOTE: All other information or data excluded from the list below represent non-technical information or data, interpretations or opinions, boring logs and laboratory tests).

Reports Not Used by the Professional (Paragraph 2.2): Specifier Elects to Follow Provisions in Section 00210



Many public contracts involve Work in or adjacent to existing operating and/or occupied facilities. Those facilities may have been in operation for years or even decades, and information and data about previous construction may be or may no longer be available, or even be relevant. If relevant, such information and data may have been used by the **Professional** in the preparation of the Bidding Documents, in which case the Bidders will have been so advised in paragraph 2.1, subject to the paragraph 2.2 provisions on Authorized Technical Data.

In instances where such documentation has not been used by the **Professional**, whether because it has been superseded by current reports or design documents or was not a factor in the **Professional's** design, commonly the existence of those reports and other documentation is not disclosed or made available to the Bidders. In some cases, however, those reports and documents may contain information or data about (a) conditions that may be helpful to Bidders when bidding on the Work, or (b) unknown conditions, i.e., conditions not indicated in the Contract Documents or the reports and documentation identified in paragraph 1.1. Experience shows often these reports and documentation become pivotal if differing site conditions materialize. In fact, related case law shows that there has been much controversy and litigation involving *pre-existing* information about site conditions at the site that *were not disclosed* or made available to the Bidders.

With this background, Section 00210 (as noted in the Instructions to Bidders, paragraph 3.4.2) allows **Specifiers** to identify other available reports and documentation that have not been used by the **Professional**. Itemization of such reports and other documents should (a) defuse the perception that subsurface conditions data was withheld from the Bidders, and (b) provide additional information about conditions that may be recognized as inherent in work similar in character and scope to the Work under the Bidding Documents.



Under paragraph 2.2, the **Specifier** shall itemize those reports of explorations and tests of subsurface conditions that have not been used by the Professional in the preparation of the Bidding Documents. Typically, such reports, if any exist, may have been developed for previous construction at the site and are obsoleted by those itemized in paragraph 2.1. If no such reports exist (and are unknown to the Professional and State), the **Specifier** should enter NONE in this paragraph.



Comments received at seminars conducted for other clients made it apparent that design consultants would prefer to not identify such reports, whereas contractors prefer that they be identified.



An example of using paragraph 2.2 follows:

<p>2.2. The reports of explorations and tests of subsurface conditions itemized immediately below have not been used by the Engineer in the preparation of the Bidding documents. Those reports are available at the office of the Engineer for review or purchase. Neither the Owner nor Engineer represents that the itemized reports are all existing relevant reports.</p> <p>(a) Report dated August 23, 1990, prepared by E.T. Archer Corp. entitled "Subsurface Boring Results - Prairie Lee Foremain and Maybrook Interceptor Extension - Section 1."</p>	<p>(b) Report dated April 24, 1990, prepared by E.T. Archer Corporation, entitled "Subsurface Boring Results - Pump Station 5A/5B, City of Lee's Summit, Missouri."</p> <p>(c) Report dated August 28, 1990, by Geo-Systems Engineers, Inc. entitled "Subsurface Exploration and Engineering Evaluation, Prairie Lee Pump Station, Lee's Summit, Missouri."</p> <p>(d) Report dated December 1, 1990, prepared by E.T. Archer Corporation, entitled "Subsurface Boring Results, Eastern Watershed Interceptors and Foremain, Contract F-2."</p>
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Reports Not Used by the Professional (Paragraph 2.2): Specifier Elects not to Identify such Reports

If the Specifier knows of no such reports, or simply does not see the point in providing such information, and elects not to provide such information, the Specifier shall simply bypass using paragraph 2.2 at all. Also, and as pointed out in the review of Section 00120, the Specifier shall concurrently delete paragraph 3.4.2 of the Instructions to Bidders.

Other Physical Conditions (Paragraph 3.1)



There are three options the **Specifier** should consider in determining the wording of the first sentence in paragraph 3.1:

First, if the **Professional** has incorporated into the Drawings and Specifications all information and data concerning physical conditions of existing surface and subsurface facilities and that information and data have been used by the Professional in the preparation of the Bidding Documents, then the first sentence should read as follows:

The Drawings and Specifications contain information or data that have been used by the **Professional** in the preparation of the Bidding Documents, and that may be properly considered Authorized Technical Data concerning physical conditions of existing surface and subsurface facilities.

Second, if some or a portion of the information or data has been incorporated into the Bidding Documents, but other or a portion of such information or data is reflected on other documents (e.g., record drawings), then this paragraph should read as follows (and in the example):

The Drawings and Specifications and those drawings itemized immediately below contain information or data that have been used by the **Professional** in the preparation of the Bidding Documents, and that may be properly considered Authorized Technical Data concerning physical conditions of existing surface and subsurface facilities.

Third, if such information or data has not been incorporated into the Bidding Documents, and all such information or data is reflected on other documents (record data, etc.), then this paragraph should read as follows:

Those drawings itemized immediately below contain information or data that have been used by the Professional in the preparation of the Bidding Documents, and which may be properly considered Authorized Technical Data.



An example of paragraph 3.1 which represents the second option described above follows:

3.1. The Drawings and technical Specifications and those drawings designated below contain information or data that have been used by the Engineer in the preparation of the Bidding Documents, and that may be properly considered authorized technical data concerning physical conditions of existing surface and subsurface facilities: REFERENCE DRAWINGS.



Another example of paragraph 3.1 which also represents the second option follows:

3.1. The Drawings and technical Specifications and the drawings referenced below contain information or data that have been used by the Engineer in the preparation of the Bidding Documents, and that may be properly considered authorized technical data of physical conditions of existing surface and subsurface facilities: Hamrick Aerial Photography - Aerials.



Yet another example of the second option follows:

3.1. The Drawings and technical Specifications and those drawings itemized immediately below contain information or data that have been used by the Engineer in the preparation of the Bidding Documents, and that may be properly considered authorized technical data concerning physical conditions of existing surface and subsurface facilities:

(a) Scroggs Road Detention Basin Expansion, Contract P-3, Lees Summit, Missouri, 1990, ETA Corporation.

(b) Eastern Watershed Interceptors and Force mains, Contract F-2, Lees Summit, Missouri, 1991, ETA Corporation.

(c) Water and Sewerage System Improvements, Contract S-16, South Prairie, Lee Interceptor Sewer Facility, 1972, B&M Documents not Used by Engineer (Paragraph 2.2).



The **Specifier** should handle paragraph 3.2 in a similar fashion as paragraph 2.2, except that paragraph 3.2 applies to physical conditions of surface and subsurface facilities (whereas paragraph 2.2 applies to *subsurface conditions*).



An example of the use of paragraph 3.2 follows:

3.2. In addition to REFERENCE DRAWINGS, design documents and construction records, including but not limited to record documents, for Project

Index No. W-8121471 Union Hills Water Treatment Plant Stage 1, are on file in the offices of the **Owner** and **Engineer** for review. Information and data contained in those documents, including, but not limited to dimensions, locations and conditions of existing surface and subsurface structures, roadways, piping, raceways, equipment, etc. may not accurately or reliably reflect actual conditions. Neither the **Owner** nor **Engineer** represents that the itemized documents are all existing relevant reference documents.



Another example of the use of paragraph 3.2 follows:

<p>3.2. The reference documents itemized immediately below have not been used by the Engineer in the preparation of the Bidding Documents, and are available at the office of the Engineer for review or purchase. Information and data contained in those reference documents, including but not limited to dimensions, locations and conditions of existing surface and subsurface structures, roadways, piping, raceways, equipment, etc. may not accurately or reliably reflect actual conditions. Neither the Owner nor Engineer represents that the itemized documents are all existing relevant reference documents.</p>	<p>Operation and Maintenance Manual, Lift Station No. 5B and Force Main, November 18, 1970, B&M</p> <p>(c) Force Main and Lift Station, Nos. 5A/5B Improvements, 1984, LAR Associates</p> <p>(d) Sanitary Sewer, Maybrook Interceptor Extension, Lemone-Smith Development Co., 1988, AS Consultants</p> <p>(e) Pump Station 5A/5B Upgrade, Contract P-1, Lee's Summit, Missouri, 1990, ETA Corporation</p> <p>(f) Prairie Lee Forcemain and Maybrook Interceptor Extension, Section II, Contract F-1, 1990, ETA Corporation</p> <p>(g) Eastern Watershed Pump Facility, Contracts P-4, Lee's Summit, Missouri, 1991, E.T. Archer Corporation</p>
<p>(a) Water & Sewerage System Improvements, Contract S-4, Sewers and Force Main Service, Lift St. No. 5A, 1961</p>	
<p>(b) Water & Sewerage System Improvements, Contract S-10, Lift Station No. 5B and Force Main, 1969, B&M and</p>	

Underground Utilities (Paragraph 4.1)



As with paragraph 3.1, there are three options that the **Specifier** should consider in determining the wording of the leading sentence in paragraph 4.1. On the other hand, Section 00210 does not provide for the disclosure of Underground Utilities data not used by the **Professional**.

With this in mind, first, if the **Professional** has incorporated into the Drawings and Specifications all information and data concerning physical conditions of Underground Utilities and that have been used by the Professional in the preparation of the Bidding Documents, then the first sentence should read as follows: "Information or data about physical conditions of Underground Utilities, that have been used by the **Professional** in the preparation of the Bidding Documents, is shown or indicated in the Drawings and technical Specifications."

Second, if such information has been incorporated into the Bidding Documents, but other such information is reflected on other documents (e.g., Underground Utility drawings provided by the **State** or by the owners of the utilities), then this paragraph should read as in example of paragraph 4.1 shown below: "Information or data about physical conditions of Underground Utilities, that have been used by the **Professional** in the preparation of the Bidding Documents, is shown or indicated in the Drawings and technical Specifications and those Underground Utility drawings itemized immediately below."

Third, if none such information has been incorporated into the Bidding Documents, and thus all such information is reflected on other Underground Utility documents, then this paragraph should read as follows: "Information or

data about physical conditions of Underground Utilities, that have been used by the **Professional** in the preparation of the Bidding Documents, is shown or indicated in those Underground Utility drawings itemized immediately below".



An example of paragraph 4.1 follows:

4.1 Information or data about physical conditions of Underground Utilities that have been used by the Engineer in the preparation of the Bidding Documents, is shown or indicated in the Drawings and technical Specifications and those Underground Utility drawings itemized immediately below:

- Tampa Pipeline Co. – Ammonia Pipeline Location
- Hillsborough County Utilities – Storm Drainage, Water and Sanitary Sewers
- Hillsborough County Road and Bridge Dept. – Right-of-Ways, Easements, Data Relative to Roadways
- Florida DOT – State Highway Right-of-Way Information
- SCRR – Railroad Right-of-Way Information

Permits, Approvals, Licenses and Fees



Generally, the **State** procures no construction permits, rather, as stated in Section 00700 General Conditions, paragraph 7.1.1.2, the **State Model** makes the **Contractor** responsible for securing from the Department of Labor, Bureau of Construction and from all Political Subdivisions with jurisdiction over the Work, all construction permits necessary for the Work. For Projects fitting this category, the **Professional** may simply enter NONE on this paragraph 5.1.

In an unusual project situation, where the **State** has procured any such permits, whether from the Corps of Engineers, the Department of Natural Resources, or another agency, the **Specifier** may use paragraph 5.1 and 5.2 to provide notice to Bidders of such fact. This paragraph may also be employed to furnish information on determinations from Federal, State or local agencies, which are not permits per se but will control the Means and Methods or otherwise restrict operations in any way.



In the event that the State indeed has obtained any permit(s), the **Specifier** should itemize in paragraph 5.1 any such permits, approvals, licenses and fees that will be made available to Bidders. Relevant information may include: Issuing agency, contact person, expiration date, who can apply for a modification, etc. Paragraph 5.2 allows the option of having the permits attached to Section 00210. If the permits are not included with the Bidding Documents, and they are available at a charge, enter the proper amount in paragraph 5.2.

SECTION 00300 BID FORM

THE **SPECIFIER** SHOULD CONFIRM WHETHER THE **STATE** PREFERS THE USE OF COLORED SHEETS FOR THE BID FORM, SECTION 00300 (AND THE BID FORM ATTACHMENTS, SECTIONS 00310 AND 00320). IF COLORED SHEETS ARE TO BE USED FOR THE BID FORM AND BID FORM ATTACHMENTS, THE SAME COLOR SHEETS SHOULD BE USED THROUGHOUT.



Section 00300 is a Model Section which includes a bid summary and two prototype bid schedules. The **Specifier** is expected to set up both of the bid schedules. Except for that data and as otherwise may be consented to by the **State**, the balance of Section 00300 is not to be changed by the **Specifier**.

BID SUMMARY

The **Specifier** completes the "File Number," "Index Number," "Agency Code," "Comptroller Code," "Commodity Code," "Agency Number," "Department/Agency," "Project Scope of Work Description/Location," "Bid Opening Date," and "For an Examination of the Site Contact." The Bidder completes the remainder of the form.

COVER PAGES

If the **Specifier** elects to add additional Bid Form Attachment(s) to the two (2) contemplated in the Model, this Cover Page will need to be retyped and the TABLE OF CONTENTS correspondingly amended.

Heading, Title Block and Table of Contents

Complete the TABLE OF CONTENTS by entering the appropriate page numbers for Articles 7 (SCHEDULE OF CHANGE ORDER PRICES) and 8 (BID SUBMITTED).



Complete the blank lines in the Title Block (i.e., "**Professional-**", "**Work-**", "**Agency No.-**", "**Index No.-**", and "**File No.-**"), using the corresponding information from Article 2 of Section 00030 Advertisement.

Paragraph 2.1 – Acknowledgment of Addenda

The table in this paragraph is to be completed by each Bidder submitting a Bid. The last sentence in this paragraph stipulates that, except for Addenda which solely revises the Bid opening date, the Bidder will be disqualified if the Bidder completes the acknowledgment of Addenda incorrectly or fails to acknowledge the receipt of Addenda. This rule is common, although not universal. At some seminars conducted for FORMSPEC™ clients, it was brought up by contractors that this practice is consistent with how other public owners deal with this issue, and thus would be understood by most Bidders. As a matter of fact, the rule in paragraph 2.1 is consistent with the intent of paragraph 1.1 "... and to perform and furnish all Work as specified or indicated in the Bidding Documents...", which of course include all Addenda. By the way, and as provided in paragraph 2.1, it is intended that a Bid with an incorrect table in paragraph 2.1 may be cause for

the **State** to not read the Bid aloud. This procedure should be kept in mind during the opening of Bids.

The alternative, used in some model specifications, is to state that the Bid shall be binding on the Bidder, regardless of whether the Bidder correctly acknowledges all Addenda or not. The **Specifier** should consult with the **IS** if any modifications to this paragraph 2.1 are contemplated.

If any modifications are consented to by the **IS**, the **Specifier**, as a for instance, first, could cross-out that text in paragraph 2.1 to be supplemented and physically type in "Refer to Section 00120 Supplementary Instructions"; and second, could add an appropriate supplementary instruction to accomplish the desired modification. This illustrates the use of Section 00120 to amend or supplement a Section other than Section 00100 Instructions to Bidders.

Paragraph 2.3 Concerning Subsurface Conditions and the Conditions of Existing Facilities



Paragraph 2.3 is a recitation of bidding requirements already delineated in paragraphs 3.4 and 3.5 of Section 00100 Instructions to Bidders. This paragraph does draw a distinction between information and data that have been used by the **Professional** from those that have not been used. Per paragraph 2.3, by submitting a Bid, a Bidder represents to have studied carefully all reports of subsurface conditions and drawings of physical conditions of existing surface and subsurface facilities identified in the Bidding Documents as those that have been used by the **Professional**. By omission, the Bidder is not obligated to study reports of subsurface conditions and drawings of physical conditions of existing surface and subsurface facilities that have not been used by the **Professional**. (However, Bidders are not in any way discouraged from doing so).

Paragraph 2.3 Concerning Underground Utilities



Paragraph 2.3 also calls the Bidder's attention to Underground Utility provisions in Section 00700 Instructions to Bidders and Section 00700 General Conditions. Those provisions (which track requirements in 1974 PA 53, MCL 460.701 *et seq.*) deal with the responsibilities of the **Contractor** concerning Underground Utilities shown or indicated in the Contract Documents or in the reference documents identified in Section 00210 Information for Bidders. Conversely, under the statutory provisions and the terms of paragraph 10.3 of Section 00700 General Conditions, the **State** assumes the risk of changes and resultant costs and Delays, if the **Contractor** encounters Underground Utilities not previously located that were unforeseeable (e.g., they were not discernible by a reasonable inspection or not shown or indicated in the Bidding Documents).

Paragraph 2.4 – Concerning Site Conditions



Paragraph 2.4 requires the Bidder's Bid to recite conformance with paragraph 3.7 of Section 00100 Instructions to Bidders. It becomes operative if the Bidder determined that Additional Authorized Technical Data was necessary for figuring its Bid and notified the **State** of that fact, and the **State** did not make such additional Authorized Technical Data available. Per this paragraph, if such is the case, the Bidder assumes

responsibility for having undertaken or undertaking reasonable examinations of the site and any other pertinent available information and data. Further, the Bidder agrees to perform and furnish the Work affected by the conditions involved, at no increase in Contract Price and Contract Time, to the extent the information and data necessary for determining the Bid could have been discovered through reasonable examinations of the site and of any other pertinent information and data available.

There is ample precedent in the case law as to what constitutes a reasonable examination under normal bidding practices. Paragraph 10.2.2.3 of Section 00700 General Conditions transfers responsibility for the risk of site conditions to the **Contractor** if those conditions could have been discovered by the type of reasonable examinations for which the **Contractor**, as Bidder, was made responsible under the Bidding Requirements.

Paragraph 4.2 (Bidder-Provided Bid Attachments)



It is uncommon that Bidders are required to include Bidder-provided information with the Bid. However, in the event that the Bidding Documents do require such information as manufacturer's data or Shop Drawings, reference letters or any other documents to be attached to the Bid, this space should be used by the **Specifier** to identify those Sections of the Specifications (e.g., Section 00120 Supplementary Instructions) detailing such Bidding Requirements.

Page 00300-3

Action: Bid Schedule



Under paragraph 6.1 **Bid Schedule** – Retype this page in its entirety using the Bid Schedule developed by the **Specifier**. Retain the leading sentence, column headings and the Bid recap at the bottom of this schedule. Use as many pages as necessary. Retain the headers and footers and number pages consecutively beginning with page 00300-3.



Consistent with Article 16 of Section 00100 Instructions to Bidders, a "Mobilization Pay Item" may need to be included as part of the Bid, in which case the **Specifier** should create at least two Bid Items: (a) one Bid Item to cover the entire Work, except for the Mobilization Pay Item, and (b) another Bid Item for "Mobilization."



Whenever more than one Bid Item is designated in the Bid Schedule, care must be exercised to ensure that the wording used to articulate the scope of all Bid Items completely and properly describes and accounts for the entire scope of Work. Generally, this may be accomplished by either of two methods: (a) having the leading Bid item state "All Work under the Bidding Documents... except for the Bid items listed separately below.....", or (b) by means of separate, Work-specific bid items, together with a bid item addressing the balance of the Work under the Bidding Documents. Notice also that the prototype Bid Schedule requires Bidders to sum the prices for all Base Bid items; if having Bidders add up amounts for the Base Bid items is not

desirable, simply leave that text out, however, for consistency, paragraph 10.5 of Section 00100 Instructions to Bidders should be amended to reflect that.



Refer to this Guide's discussion about Alternates with Section 00120 Supplementary Instructions, if the use of Alternates is a consideration and paragraph 6.2 Schedule of Alternates is to be completed. In general, under the headings shown with paragraph 6.2, Alternates should be listed and described as called for (considering the commentary with Section 00120 Supplementary Instructions about prioritizing the listing) or the Specifier should type in "NONE" centered under the headings if there are no Alternates.

Change Order Prices



Under **ARTICLE 7 SCHEDULE OF CHANGE ORDER PRICES** – If the **Specifier** specifies Change Order price items, retype this page with the data about the **Specifier**–designated Change Order prices. Retain the leading sentence and column headings. Retain page headers and footers, and number pages based on the page numbering of the Bid Schedule. If no Change Order prices are specified, use the prototype page as is, center the word "**NONE**" on the page and number the page appropriately.

Data to be entered by the **Specifier** consists of Item No., Units or Quantity and Price Proposed by the **Owner**. As to the latter, if Change Order price items are specified by the **Specifier**, the **Specifier** shall estimate a price for each item and enter that price in the appropriate column. This data will prevent an otherwise acceptable low Bidder from being disqualified as non-responsive for failing to bid a Change Order price required by this schedule. It is up to the **State** to accept or reject any such prices bid by the Bidder awarded the Contract. Change Order prices are bid separately in Article 7 versus Article 6 (Bid Schedule) to emphasize that Change Order prices are not a factor in determining the lowest Bid and avoid any confusion between Bid Items and Change Order prices.



Work covered by Change Order unit prices is considered Contingent Unit Price Work (see Section 00020 Glossary). Paragraph 10.6.3 of Section 00700 General Conditions specifies that any Change Order price incorporated into the Contract Documents shall apply to the actual quantity, if the actual quantity is less than 120% and more than 80% of the estimated quantity. For this provision to be effective, it is presumed that the **Specifier** will provide estimated, albeit contingent, quantities in this Schedule. If any actual quantity exceeds the estimated quantity by more than 20%, a unit price shall be negotiated only for the excess quantity. If any actual quantity is less than 80% of the contingent quantity and the product of the contingent quantity times the unit price exceeds the lesser of \$50,000.00 or two percent (2%) of the Contract Price, a unit price shall be renegotiated for the entire quantity. If the **Specifier** does not intend to provide a contingent quantity, enter "N/A" in the Units or Quantity column to hopefully preclude the assertion that more than 1.2 units will require renegotiation of the unit price.

Article 7 does not refer to base contract work; only to work added or deleted through change order. Under these circumstances, the State believes that quoted change order prices should be the same both ways, and the Contractor has an opportunity to take that into account when the prices are proposed. The outcome would be different for base work, but this is extemporaneous to the provisions of this Article, since they would only be used to add/delete new scope.



An example of a representative Base Bid Schedule and Schedule of Change Order Prices under FORMSPEC™ are shown on the next two pages:



ARTICLE 6 BID SCHEDULE

6.1 Bid Schedule The Bidder will complete the Work and accept in full payment for the Work items listed, the following unit prices and/or Bid Prices, as applicable:

Base Bid Item No.	Bid Quantity	Description (Bidder to write price in words)	Unit Price	Bid Price
6.1.11LS		All Work under the Bidding Documents except for the Bid items listed separately below, for the lump sum of:	N/A	\$
6.1.21LS		All Work under the Bidding Documents associated with the Raw Water Pump Station A1 and A1 expansion, for the lump sum of:	N/A	\$
6.1.31LS		Mobilization/Demobilization Pay Item, as specified in the Bidding Documents for the combined lump sum of:	N/A	\$
6.1.41LS		Project Sign Cash Allowance for the lump sum of: Two thousand Dollars	N/A	\$2,000.00

Bid (Sum of Bid Prices for all Work Items)

Dollars and No/Cents - \$

(use words)

(in figures)

Name of the Bidder

Agency No.

Index No.

Project No.



ARTICLE 7 SCHEDULE OF CHANGE ORDER PRICES

7.1 The Bidder shall use this "Schedule of Change Order Prices" to propose contingent prices. The proposed contingent Change Order prices set forth in this schedule, at the sole discretion of the Owner, may or may not be incorporated into the Contract Documents. The Owner reserves the right to negotiate contingent Change Order prices set forth herein prior to their possible incorporation into the Contract Documents. Proposed Change Order prices will not affect determination of the lowest Bid.

7.2 Subject to their incorporation into the Contract Documents, as provided in the Agreement, the Bidder will add to, or deduct from, the Contract Work covered by the contingent prices that follow and accept in full payment, or allow in full credit, for that Work: (a) those prices bid by the Bidder, or (b) if a particular price is not bid, the price proposed by the Owner (and shown in the appropriate column).

Item No.	Units or Quantity	Description (Bidder to write price in words)	Bidder's Bid Price	Price Proposed By the Owner
7.1	45,000 LF	Unit Price to remove, install and test 1 LF of shielded twisted pair instrumentation cable in accordance with Specification 172020 and 160203-30	\$	\$0.765
7.2	500 EA	Unit Price for the termination (six terminations per run) and labeling of each run of shielded twisted pair instrumentation cable in accordance with Specification 172020	\$	\$12.90

Name of the Bidder _____ Agency No. _____, Index No. _____, File No. _____

Signature Page

ARTICLE 8, number both pages in this Article. Also, number (bottom of the pages) the three forms pertaining to evidence of authority to sign the Bid at the end of Section 00300.

SECTION 00310 BID BOND

Section 00310 is a Model Section, and, except for two relatively minor entries, no alterations are required. If the **Specifier** believes that any changes may be required for a particular contract, consult with the **Infrastructure Services** and obtain their approval before making any changes.



Enter the Agency No., Index No. and File No. in the designated underlined location in the heading. Also, on the (second) paragraph, which starts as "WHEREAS, the Bidder...", enter the sentence that describes the Work as stated in Article 2 of Section 00030 Advertisement (shorten as necessary to fit in the space allowed).



Even though Section 00310 Bid Bond provides spaces for any Bidder to enter, *in words and in figures*, the Bid Bond amount representing five percent (5%) of its Bid, it is not uncommon that a Bidder may simply write in five percent (5%). Although this practice may be objectionable, it is considered merely an informality by many construction owners.



On the **State** Model, if the Bidder's obligation under the Bid Bond remains in full force and effect, the Bidder and/or surety shall pay to the **Owner** *the full amount of the penal sum*. Other Bid Bonds provide for payment of the difference between the Bidder's Bid and the amount by which the **Owner** may procure the Work, not to exceed the penal sum.

SECTION 00320 NONCOLLUSION AFFIDAVIT

Section 00320 is a Model Section, and, except for title block entries, no other information is required to complete this Section. The **Specifier** shall consult with the **State** if it becomes apparent that changes to this Section are required to meet the particulars of a specific contract.



Complete the blank lines in the Title Block (i.e., "**Professional** - ", "Work -", "Agency No. -", "Index No. -", and "File No. -"), using the corresponding information provided in Article 2 of the Advertisement.

ADDITIONAL BID FORM ATTACHMENTS

Additional Bid Form Attachments, if used, should be for-matted along the lines of those provided. However, the footers shall be 97.0820 instead of MICHSPEC™ 97.0820.

SECTION 00400 QUALIFICATION SUBMITTALS

QUALIFICATION SUBMITTALS ARE TO BE COMPLETED BY THE APPARENT LOW BIDDER AFTER BID OPENING. THE **INFRASTRUCTURE SERVICES** PREFERS COLORED, QUALIFICATION SUBMITTAL SHEETS, WHICH SHALL BE IN DIFFERENT COLOR FROM ALL OTHER SECTIONS.

COVER PAGE

If the **Specifier** elects to include additional Qualification Submittals, this Cover Page will need to be retyped. However, ensure that the headers (top of page) and the TABLE OF CONTENTS (Section 00010) are correspondingly revised.

SECTION 00410 BID BREAKDOWN

Section 00410 Bid Breakdown is a prototype Section and may be used as is, or in the alternative, the **Specifier** could provide a specific Bid Breakdown (in which case the second sentence in paragraph 1.0 shall not be used). Having the Apparent Low Bidder submit this Form will be helpful in the event (a) there is reason to consider disqualifying the Apparent Low Bidder, or (b) the low Bid is higher than the budget, and decisions on deducts for the purpose of re-Bidding the Work are to be made.

Page 00410-1

Complete the blank lines in the Title Block (i.e., "**Professional-**", "Work-", "Agency No.-", "Index No.-", and "File No.-"), using the corresponding information from Article 2 of Section 00030 Advertisement.



If no specific Bid Breakdown is to be developed in advance of receipt of Bids, determine an appropriate limit for causing a subdivision of the Bid into detailed Bid items.



An example of a Bid breakdown detailing specific Work components follows:



SECTION 00410 BID BREAKDOWN

OWNER: STATE OF MICHIGAN

AGENCY No:

PROFESSIONAL:

INDEX No:

WORK:

FILE No:

1.0 BID BREAKDOWN: The Apparent Low Bidder shall itemize below a breakdown of its Bid into separable parts of the Work so that one hundred percent (100%) of the Bid is accounted for. Portions of the Work itemized shall include Work to be furnished and performed directly by the Apparent Low Bidder and its Subcontractors and Suppliers, as applicable. Each separable part of the Work identified in this Bid Breakdown shall have a value not exceeding _____ percent (____%) of the Apparent Low Bidders Bid, except parts of the Work designating furnished materials or equipment, which may be itemized as quoted.

1.1 Sitework

- Overlay Pavement
- Asphalt Pavement
- ABC Pavement
- Stabilized Subgrade and Shoulder
- Curbing and Wheelstops
- Sidewalks
- Reinforced Concrete and Corrugated Metal Drain Pipe
- Manholes and Replacement Covers
- Endwalls, Splashpads
- Landscaping (Relocating Plants & Irrigation)
- Fencing (Sludge Disposal Area)
- Shotcrete
- Parking Covers
- General Excavating
- Loose-Fill and Grading (Sludge Disposal Area)
- Sludge Loading Station
- Miscellaneous Metal Fabrications (Access Ladders/Platforms)
- Miscellaneous

Site Work Total

1.2 Yard Piping

- Sanitary Sewer
- 20 & 24-inch Piping, Valves, Fittings, & Appurtenances
- 12-inch and smaller Piping, Valves, Hydrants, Fittings, & Appurtenances
- Plastic Piping, Valves, Fittings, & Appurtenances (Chemical & SPW)
- Meter Vaults & Appurtenances
- Tapping of Zone 3D Pipeline with Manhole and Fitting
- Miscellaneous

Yard Piping Total

1.3 Raw Water Station A1 & All

- Foundation
- Slab on Grade
- Sloped Slab on Grade
- Partition Walls (Sloped Walls for Pump Chambers)
- Slab Above Grade (Decks)
- Grouting of Screw Pumps
- Miscellaneous Structural Concrete

- 48-inch Diameter Concrete Pipe
- Slide Gates
- Screw Pumps with Lubrication Pumps and Motors
- Handrail and Miscellaneous Metal Fabricating
- Miscellaneous Piping, Fittings, Valves & Appurtenances
- Miscellaneous

Raw Water Station A1 & A11 Total

1.4 Zone 3D By Pass Vault

- Slab on Grade
- Walls
- Elevated Slab (Deck)
- Piping, Fittings & Valves w/Operators
- Flow Meter
- Miscellaneous Minor Piping, Equipment & Appurtenances
- Miscellaneous Metal Fabrications (Doors, Handrails, etc.)
- Miscellaneous

Zone 3D By Pass Vault Total

1.5 Raw Water Station "B"

- Pumps with Motors
- 24-inch & Larger Piping, Fittings, Etc.
- Valves & Operators
- Miscellaneous Minor Piping, Equipment & Appurtenances
- Miscellaneous

Raw Water Station "B" Total

1.6 Equipment Storage Building and Aeration Basin

- Foundation
- Slab on Grade
- Walls, Retaining Walls, Stairs, Etc.
- Superstructure (Steel)
- Roofing and Skylights
- Partition Walls & Ceiling
- Exterior Walls and Finish
- Doors
- Mezzanine (Steel and Concrete)
- Handrail
- Painting
- Miscellaneous Mechanical Work (Aeration Basin)
- Inlet Bypass Valve (Aeration Basin)
- Miscellaneous

Equipment Storage Building Total

1.7 Treatment Modules (Modules 1A and 2A)

- Excavation
- Below Grade Mechanical Work (Drain Pipes)
- Slabs on Grade
- Walls Below Elevation 1521
- Intermediate Elevated Slabs and Stairs
- Walls Above Elevation 1521
- Top Deck (Elevation 1540)
- Valves (Round & Square) with Operators
- Gates (Slide & Weir) with Operators
- Metallic Piping, Fittings & Appurtenances for 10' Diameter & Larger Pipe
- Metallic Piping, Fittings & Appurtenances for Pipe Smaller than 10' in Diameter
- Plastic Piping, Fittings, & Appurtenances
- Stainless Steel Piping (Air)
- Flash Mixers
- Flocculators

Handrailing & Miscellaneous Metal Fabrications

Fiberglass Grating

Backfill & Final Grading

Filter Underdrains

Filter Media (Modules 1A & 2A)

Module 01 Underdrain Retrofit

Module 01 & 02 Valves w/Operators (Gate Replacement)

HVAC

Filter Media Skimming, Testing & Placement

Miscellaneous

Treatment Modules Total

1.8 Chemical Feed Systems

Feed Pumps and Controls (New and Refurbished)

Day Tanks & Existing Tank Modifications

Tank Access Walkways

Miscellaneous Piping, Equipment & Appurtenances

Miscellaneous

Chemical Feed System Total

1.9 Minor Pumps and Compressor

Thickened Sludge Pumps & Appurtenances

Sump Pumps and Controls

Sample Pumps & Control (SPW)

Booster Pumps & Controls (HPW)

Compressor & Controls (Surge Systems)

Miscellaneous Piping, Equipment & Appurtenances

Minor Pumps and Compressor Total

1.10 Chlorination System and Disinfection Building Modifications

Chlorinators

Residual Analyzers

Miscellaneous Piping, Equipment, & Appurtenances

Chlorine Tanker Canopy (Structure, Roof and Accessories)

Drain Piping Modifications

Miscellaneous Disinfection Building Modifications

Chlorination System Total

1.11 Finished Water Pump Station and Reservoir

Pumps and Motors

Check Valves, Valves, and Operators

Miscellaneous Piping to Connect Pumps

Surge Tanks and Controls

Surge Interconnecting Piping

Miscellaneous Piping, Equipment & Appurtenances

Dewatering Pump and Piping

Reservoir Modifications

Miscellaneous

Finished Water Station & Reservoir Total

1.12 Electrical Systems

RWPS All & All (Power and Lighting)

Administration Building, Wing (Power, Instrumentation, LAN System, etc.)

Equipment Storage Building (Power, Lighting)

Treatment Modules (Power)

Treatment Modules (Lighting and communications)

Medium Voltage Switchgear & MCC's

Low Voltage Switchgear & MCC's

Variable Frequency Drives (Flocculators & HPW Pumps)

Miscellaneous Equipment & Appurtenances
Ductbanks and Miscellaneous Yard Electrical

Electrical Systems Total

1.13. Instrumentation System

Verification of Existing Wiring
PLC's and Termination Cabinets
Local Control Panels (New and Modifications)
Instrumentation Data Highway
Miscellaneous Equipment & Appurtenances
Instrumentation Wiring (New)
Instrumentation Wiring (Retermination of Existing)
Field Devices (Level, Flow & Pressure Sensors)
Software
Training
MIS System
LEAN System Price for using fiber optics as the data highway

Instrumentation System Total

1.14. Painting

1.15. Mobilization and Demobilization

1.16. Indemnification

1.17. Instrumentation 30 Day Test

1.18. Pre-Operational Testing

1.19. Start-Up Testing Requirements (7 Day Test)

1.20. Extended Service Agreements

1.21. Accelerated Schedule Activities

1.22. Professional's Trailer Furniture

1.23. Record Documents

1.24. O&M Manuals

1.25. Equipment Training (Except Instrumentation)

1.26. Spare Parts

1.27. Project Sign allowance

1.28. Balance of Bidder's Base Bid plus Alternates

Total of Bid Breakdown

2.0 DISCREPANCIES: Discrepancies in this Section 00410 Bid Breakdown shall be resolved in accordance with Article 14 of the Instructions to Bidders. Any discrepancies between the Apparent Low Bidder's Bid Breakdown and Article 6 Bid Schedule on the Apparent Low Bidder's Section 00300 Bid Form with respect to a given lump sum item, a unit price item or a "One Each" item, or any sum of any of them, will be resolved so that the corresponding amount(s) on the Apparent Low Bidder's Section 00300 Bid Form will be binding on the Apparent Low Bidder.

SECTION 00420 QUESTIONNAIRE

This form is to be completed only by the Apparent Low Bidder and those Subcontractors nominated in Section 00430 List of Subcontractors. Since Section 00420 Questionnaire is a Model Section, except for title block entries, no other information is required to be entered by the **Specifier**. Consult with the **State** if it is apparent that changes to this Section are required to meet the particulars of a specific contract.



Complete the blank lines in the Title Block (i.e., "**Professional -**," "**Work -**," "**Agency No.-**," "**Index No.-**," and "**File No. -**"), using the corresponding information provided in Article 2 of Section 00030 Advertisement.



There is no requirement in Michigan for contractors doing work for the **State** of Michigan – Department of Management and Budget for general contractor licensing. Section 00420 in Article 2 requires Subcontractors, and prime contractors bidding contracts that include specialty classifications of Work (as defined by the **State**), to disclose whether they hold the required specialty licenses, if any indeed are required.

References Attachment

Under **REFERENCES ATTACHMENT**, Page 00420-3 and Page 00420-4, complete the blank lines in the Title Block (i.e., "**Professional -**," "**Work -**," "**Agency No.-**," "**Index No.-**," and "**File No.-**,") using the corresponding information provided in Article 2 of Section 00030 Advertisement.

SECTION 00430 LIST OF SUBCONTRACTORS

The first page of Section 00430 is a Model Section, and, except for title block entries, no other information is required to be entered by the **Specifier**. Consult with the **DMB** if it becomes apparent that changes to this Section are required to meet the particulars of a specific contract.



Complete the blank lines in the Title Block (i.e., "**Professional -**," "**Work -**," "**Agency No. -**," "**Index No.-**" and "**File No.-**") using the corresponding information provided in Article 2 of Section 00030 Advertisement.



The second page of Section 00430 does include a table for nomination of Subcontractors for specific categories of Work which is to be set up by the **Specifier**. For each entry, the information should consist of a Division, Specification or trade for which Subcontractor nomination is required of the Apparent Low Bidder. It is anticipated that nomination will only be required for important categories of Work, whether for mechanical Work, rebar Work, or temperature controls Work, etc. The **Specifier** should consult with the **Infrastructure Services** when finalizing the *List*. It should be emphasized that the requirement to nominate Subcontractors for the *listed* Divisions, Specifications and/or trades survives the award of the Contract. This means that, even after Contract Award, nomination is required for any Subcontractor substitution or addition for any *listed* Division, Specification or trade. The procedures to deal with any such post-award nomination are provided in Section 00700 General Conditions, paragraphs 5.1.1 and 5.1.2.

SECTION 00440 SCHEDULE OF MATERIALS AND EQUIPMENT

This Model Section includes Schedule 1.6, which is to be set up in its entirety by the **Specifier**. Except for title block entries and the list of items of equipment or materials in paragraph 1.6, no other information is required to be entered by the **Specifier**. Consult with the **State** if it becomes apparent that changes to the standard portions of this Section 00440 are required to be suitable for a specific contract.



Complete the blank lines in the Title Block (i.e., "**Professional** - ," "Work - ," "Agency No. - ," "Index No.-" and "File No.-") using the corresponding information provided in Article 2 of Section 00030 Advertisement.



This Schedule 1.6 has a three-fold purpose. First, it allows the **Specifier** to designate those technical Specifications (critical to the design of the Project) for which the Bidder shall bid named or specified materials and equipment only. Schedule 1.6 presumes that the **Professional** has specified materials or equipment by using brand names, suppliers, etc., and the brands, makes, etc. listed shall exactly match those in the corresponding Specification. The **Specifier** should not use brand names, makes, suppliers, etc. not already named in the Specifications.

Second, if a named or specified item that is listed on Schedule 1.6 will not work without some changes to the Drawings and/or Specifications, paragraph 1.3 transfers the risk of paying for those changes to the **Contractor**, and to the corresponding Subcontractor or Supplier by way of follow-through provisions, unless the circumstances of such changes meet the conditions stipulated in paragraph 1.4.

Thirdly, once the **Specifier** has identified items presumably critical to the design of the Project, then this schedule requires the Bidders to nominate which of the named or specified manufacturers/suppliers the Bidder will furnish, if awarded the Contract.



Enter the brand name, make, etc. of named or specified materials or equipment, as indicated in paragraph 1.6 Schedule of Manufacturers and Suppliers. If the number of items that the **Specifier** wishes to identify exceeds the blank spaces allowed on pages 00440-1 through 00440-2, insure that the page numbers are amended accordingly on those pages, the subsequent pages and in Section 00010, Table of Contents.

Pages 00440-1 through 00440-2

Two examples of completed paragraph 1.6. Schedule of Manufacturers and Suppliers for Section 00440 List of Manufacturers and Suppliers follow:



1.6. Schedule of Manufacturers and Suppliers

ITEMS NAMED OR SPECIFIED (ENTERED BY THE ENGINEER) ITEM OF MATERIAL OR EQUIPMENT	SPECIFICATION SECTION	CONTRACTOR TO NOMINATE (CIRCLE) ITS CHOSEN NAMED OR SPECIFIED MANUFACTURERS AND SUPPLIERS
ITEM 1- Ductile Iron Pipe/Fittings	Section 00222	A- American Cast Iron Pipe Company B- U.S. Pipe and Foundry C- Clow Corporation D- Griffin Pipe Products
ITEM 2- Eccentric Plug Valves	Section 01505	A- Dezurik B- Pratt Valve Company C- Kennedy Valve
ITEM 3- RCP Gravity Sewer Pipe	Section 00223	A- Hydro Conduit Corporation B- Kansas City Concrete Pipe
ITEM 4- PVC Gravity Sewer Pipe	Section 00224	A- CertainTeed Corporation B- J.M. Manufacturing C- Diamond Plastics



1.6. Schedule of Manufacturers and Suppliers

ITEMS NAMED OR SPECIFIED (ENTERED BY THE ENGINEER) ITEM OF MATERIAL OR EQUIPMENT	SPECIFICATION SECTION	CONTRACTOR TO NOMINATE (CIRCLE) ITS CHOSEN NAMED OR SPECIFIED MANUFACTURERS AND SUPPLIERS
ITEM 1- Aluminum Covers	Section 05533	A- TEMCOR
ITEM 2- Heavy Duty Concrete	Section 09740	A- Stonhard, Inc.
ITEM 3- Chemical Resistant Concrete	Section 09740	A- Celcote Co. B- General Polymers Corp.
ITEM 4- End Suction Submersible Pumps	Section 11306	A- Flygt Corp.
ITEM 5- Multi-Stage Centrifugal Air Blowers	Section 11373	A- Hoffman B- Lamson
ITEM 6- Fiberglass Reinforced Plastic	Section 11179	A- Paramount Fabricators B- Xerxes Corp.
ITEM 7- Chlorination Equipment	Section 11501	A- Fischer Porter
ITEM 8- Dechlorination Equipment	Section 11502	A- Wallace and Tieman
ITEM 9- Metering Pumps	Section 11532	A- Pulsafeeder
ITEM 10- Non-potable Water Softeners and Filters	Section 11233	A- Culligan B- Kisko
ITEM 11- Non-potable Water (NPW)	Section 11250	A- Peabody Floway



Section 00440 Schedule of Materials and Equipment also plays a role in the naming of materials and equipment after award of the Contract. As stated in Article 2, for those Specifications *not listed* in Schedule 1.6, the **Contractor** shall disclose to the **Owner** and **Professional** – when submitting the Schedule of Values required by paragraph 12.1.1 of Section 00700 General Conditions – its choices of Manufacturers/Suppliers for the corresponding materials and equipment specified in the Specifications and Drawings (including all Addenda).

ADDITIONAL QUALIFICATION SUBMITTALS



If additional Qualification Submittals are used, they should be formatted as those provided, except that page footers on added Qualification Submittals shall use 97.0820 instead of the trademark MICHSPEC™ 97.0820. Also, added Qualification Submittals will have to be listed in Section 00010 Table of Contents.

COVER PAGES TO SECTIONS 00500–00825



COVER PAGE – Remove the Title page (and blank back page). Page 00500–1 (first page of Agreement) will remain as the next page in Section 00500 of Division 0 Specifications.

SECTION 00500 AGREEMENT



Section 00500 Agreement is a Model Section, and except for information about description of the Work and Project, Contract Times, liquidated damages and the Contract Documents, this Section is not to be amended by the **Specifier**. In the Table of Contents, articles in this Section to be "COMPLETED WITH THE BIDDING DOCUMENTS" and "COMPLETED AFTER AWARD OF THE CONTRACT" are identified.



On Page 00500-1, enter the "Agency No. –," "Index No.–" and "File No.–" in the designated underlined location in the heading.

ARTICLE 1 – THE CONTRACT; THE PROJECT; THE WORK



Complete Article 1 by entering the title/name of "the Work" and "the Project". The Work is described in Section 00030 Advertisement; Section 00020 Glossary has definitions for the Work and the Project. It is intended that the "title/name" entered on this page fit within the space provided.

ARTICLE 2 – CONTRACT DOCUMENTS



Although parts of paragraph 2.2 can be completed by the **Specifier** while preparing the Bidding Documents, paragraph 2.2 can be fully completed only upon award and sometime before execution of the Agreement. The **Specifier** may wish to hold off completing this paragraph until after Contract Award.



As noted in paragraph 2.4, if the **Specifier** knows of any proposed Contract Document, not listed in paragraph 2.2 or 2.3, which should be designated as part of the Contract Documents, it is intended that the **Specifier** will use Section 00520 Attachment to the Agreement to do so.

ARTICLE 3 – CONTRACT PRICE



As noted in the Table of Contents on page 00500-1, paragraph 3.1 is intended to be completed upon award of the Contract. At that point, the **Contractor** is known and the Contract Price has also been established via the **Owner's** issuance of the Notice of Award.

ARTICLE 4 – CONTRACT TIMES AND LIQUIDATED DAMAGES

Contract Times



Complete paragraph 4.1.1 with the period allowed for Substantial Completion of the entire Work and paragraph 4.1.3 with the period allowed for final completion of the entire Work. Often, these Contract Times are stated as calendar days, (e.g., "...within 600 Days after the date of Commencement of the Contract Time."). The Date of Commencement of the Contract Time is defined in Section 00020 Glossary. Alternatively, if any one of these Contract Times are to be specific dates or "date-certain", this Contract Time could be entered as "...on or before December 12, 1996..".

The interval between the Contract Times for Substantial Completion and final completion, depends on the scope of Work that is to be completed between Substantial Completion and final completion. If such scope or part of Work is to be mostly Punch List Work, specifiers typically use an interval of 30 to 45 days for small contracts, and 45 to 60 Days for large contracts. In any event, Contract Times must be established with due diligence. For contracts spanning several years, or contracts that involve work in or near existing, operating facilities, a pre-bid critical path schedule may be an objective way to establish Contract Times befitting the character and scope of the Work.

Liquidated Damages



Complete paragraph 4.2.3 with liquidated damage amounts (in words and in figures) associated with the Contract Time for Substantial Completion and paragraph 4.2.5 with liquidated damage amounts associated with the Contract Time for acceptance and final completion, in both cases, for the entire Work. Per paragraph 4.2, liquidated damages estimates of the **State's** extra expenses arising out of or resulting from delayed or late completion, i.e., performance extends beyond the Contract Times. In general, a detailed back-up estimate of the liquidated damages sum should be maintained in the files of the **DMB**. For multi-prime projects, liquidated damage estimates should take into account whether a late contract may delay or disrupt a subsequent and separate contract.

ARTICLE 5 – PAYMENT PROCEDURES



State partial payment procedures rely on monthly payment requests *initiated* by the **Contractor**, which are payable within thirty (30) Days after the **State** receives and approves the **Professional's** certification of the amount actually due. If any modifications to Article 5 are contemplated, the **Specifier** should contact the **IS** to review proposed special

provisions which, if approved by the **IS**, would be incorporated through Section 00520 or via supplementary provision in Section 00800 Supplementary Conditions.



The **State Model** does not provide for retention on progress payments. On the other hand, the **State Model** does require the Schedule of Values to set aside 6% of the Contract Price for the following close-out pay items: (a) two percent (2%) for Fire Marshall approval, certificate of occupancy and other code approvals, (b) two percent for manufacturer warranties, finalized operating and maintenance (O&M) manuals, training and documentation, and test and balance reports, and (c) two percent (2%) to cover finalized Record Documents. The **DMB** has made a conscious decision not to use the retainage provisions of 1980 PA 524.

ARTICLE 6 – THE PROFESSIONAL SERVICES CONTRACTOR



A reminder that if the **DMB** has delegated any of the **Professional's** duties, responsibilities and authority to another member of the **DMB** and, in addition, has retained a consultant to assist with such delegation, the limits of such delegation of authority ought to be explained in Section 00800 Supplementary Conditions.

Execution Block



The signature block is to be executed before the "attesting" signatures sign Section 00500 Agreement.

Documents Evidencing Authority



Documents evidencing authority to bind the **Contractor** are to be completed at the signing of Section 00500 Agreement.

SECTION 00520 ATTACHMENT A TO AGREEMENT



Section 00520 Attachment A to Agreement is a prototype section in that the information and data to be inserted will vary by the needs of the Contract. When retyped, the title block, introductory paragraphs and closing paragraphs shall be included exactly as shown in the following examples. However, the footers (bottom of pages) should use 97.0820 instead of MICHSPEC™ 97.0820.

Title Block



Complete the blank lines in the Title Block (i.e., "**Professional** – ", "**Work** – ", "**Agency No.** – ", "**Index No.** – ", and "**File No.** – "), using the information provided in Article 2 of Section 00030 Advertisement.



The following example demonstrates how to supplement Article 4 of Section 00500 Agreement. Essentially, paragraph 4.1.2 shall be supplemented whenever the **Specifier** intends to specify interim Contract Times for those parts of the Work designated in the Specifications. The sample Attachment A also shows how to specify liquidated damage sums, if any, for any interim Contract Time so specified.



The example that follows demonstrates the use of Article 4 under MICHSPEC™:

SUPPLEMENTARY TERMS AND CONDITIONS TO ARTICLE 4 CONTRACT TIME, LIQUIDATED DAMAGES

The following separable parts of the Work will be completed, as specified in the Contract Documents:

- a) Dechlorination facilities including rail spur and dispensing facilities, NPW Pump Station, chlorine/SO2 scrubber facilities, chlorination facilities, chlorine contact tank modifications, all of these complete with piping, valves, special accessories and appurtenances

within three hundred sixty five (365) days from the date when the Contract Time commences to run.

This interim Contract Time is of the essence so as to (a) not delay work by others as provided in Article 13 of the General Conditions, (b) conform to the sequences of Work indicated in or required by the Contract Documents, and (c) comply with the coordination requirements of the Contract Documents.

The Owner and Contractor recognize that the Contract Time specified in this Attachment A is of the essence to this Agreement in that the Owner will suffer injuries and damages if the Work is not completed within that Contract Time, including any extensions in Contract Time authorized in accordance with the General Conditions. Accordingly, liquidated damages will apply based on the amount of Ten Thousand Dollars and No/Cents (\$10,000) for each day that expires after the Contract Time specified in this Section 00520 Attachment A for completion of the designated part of the Work, until the part of the Work is complete.



The Specifier may also employ Article 4 in Section 00520 Attachment A to Agreement to detail any required sequences of Work or, in the alternative, to direct attention to those Sections in the General Requirements that provide such information in more detail.

SUPPLEMENTARY TERMS AND CONDITIONS TO ARTICLE 2 CONTRACT DOCUMENTS



As noted above, if there is any applicable regulation or any other particular document(s) that cannot be included within paragraph 2.2 or 2.3, and that the Specifier concludes should be singled out as part of the Contract Documents, this can be accomplished by means of adding Supplementary Terms and Conditions to Article 7 of Section 00500 Agreement in this Section 00520.



If Attachment A is not used, enter the words NOT USED on this form or simply remove this page from the set received from the IS. In the latter case, be sure the TABLE OF CONTENTS reflects such removal.



Another example of a representative Section 00520 under MICHSPEC™ is provided on the following page.



SECTION 00520 ATTACHMENT "A" TO AGREEMENT

OWNER CITY OF DETROIT MICHIGAN

ENGINEER

WORK ADMINISTRATION BUILDING MODIFICATIONS

CONTRACT No. 92-100

This Attachment A supplements those specific provisions in the Agreement (Section 00500) designated below. All other provisions in the Agreement that are not so supplemented remain in full force and effect.

SUPPLEMENTARY TERMS AND CONDITIONS TO ARTICLE 3 CONTRACT TIME

The following separable parts of the Work will be completed, as specified in the Contract Documents:

(a) All work associated with conversion of all eight (8) filters to dual media filters including, but not limited to installation of filter media, backwashing, skimming and disinfection of filter media, installation of wastewater troughs, surface wash piping and equipment, lower gullet baffles, upper gullet walls, new surface wash pump, inlet energy dissipater, all painting and lighting within the filter boxes, and all incidental work necessary to restore all eight (8) filters to operation, or substantially complete

on or before April 27, 1991.

(b) All work associated with the new Administration Building including all laboratory furniture and equipment, plumbing, HVAC, electrical, septic tank and miscellaneous work including correction of punch list items necessary for occupancy of the building

within Two Hundred Eighty Nine (289) days from the date when the Contract Time commences to run.

These interim Contract Times are of the essence so as to: (a) not delay work by others as provided in Article 13 of the General Conditions; (b) conform to the sequences of Work indicated in or required by the Contract Documents; and (c) comply with the coordination requirements of the Contract Documents.

The Owner and Contractor recognize that the Contract Times specified in this Attachment A are of the essence to this Agreement in that the Owner will suffer injuries and damages if the Work is not completed within the Contract Times, including any extensions in Contract Time authorized in accordance with the General Conditions. Accordingly, the Contractor further agrees to allow the Owner to deduct from Progress Payments and retention and to pay to the Owner as liquidated damages, and not as a penalty, the amounts of: (a) Five Hundred Dollars and NO/Cents (\$500.00), and (b) Three Hundred Dollars and NO/Cents (\$300.00) for each day that expires after each of the Contract Times specified in this Attachment A for the completion of each of those designated parts of the Work, respectively, until each of the parts is complete.

END OF SECTION 00520

SECTION 00610 PERFORMANCE BOND AND SECTION 00620 PAYMENT BOND



Section 00610 Performance Bond and Section 00620 Payment Bond are Model Sections and no alterations are required to be made, except the minor addition described below. Consult with the **State** if it becomes apparent that changes to either of these Bond Forms are required to meet the particulars of a specific contract.



These forms are synchronized with the Bidding Requirements and Section 00700 General Conditions. They are far more in line with the remaining Sections of the State Model than the equivalent AIA bond forms.



The information pertaining to "...Best rating..." and "...financial size category..." refer to A.M. Best Company rating guides. The **Specifier** shall confirm with the **State** that the A- and Class VII ratings are appropriate for the Contract. Generally, insurance agents or sureties can be consulted as well for appropriate surety Best ratings for the **State** of Michigan.

SECTION 00700 GENERAL CONDITIONS



Section 00700 General Conditions is a Model Section, and no modifications physically in this Section are allowed; however, the **Specifier** can use Section 00800 Supplementary Conditions to do so.

SECTION 00800 SUPPLEMENTARY CONDITIONS



Section 00800 Supplementary Conditions should be retyped in its entirety by the **Specifier**, while keeping the footers and headers consistent with the package provided by the **DMB**.



The prototype Section 00800 Supplementary Conditions included with the Model includes a recommended opening statement, but does not include a Table of Contents. A Table of Contents is advised if Section 00800 exceeds five (5) pages and/or additional Articles are added.



The **Specifier** may, through the use of Section 00800 Supplementary Conditions, (a) completely revise an existing paragraph, amend parts of an existing paragraph, add a whole new paragraph, add some language to an existing paragraph in the General Conditions (and the Glossary), or (b) add a completely new Article to the General Conditions. Examples of some of these actions follows:



When completely superseding a paragraph of Section 00700 General Conditions, the following language may be used:

SC-4.10.12. Delete paragraph 4.10.12 of Section 00700 General Conditions in its entirety and insert the following in its place: _____"



To amend an existing paragraph in Section 00700 General Conditions, the following language may be used:

SC-1.7.1. Amend the first sentence of paragraph 1.7.1 of Section 00700 General Conditions to read as follows (or by striking out the following words): " _____," and as so amended paragraph 1.7.1 remains in effect.



To add language to an existing paragraph of Section 00700 General Conditions, the following language may be used:

SC-2.6.2. Add the following language at the end of the first sentence of paragraph 9.3.4 of Section 00700 General Conditions: " _____"



To add a new paragraph to Section 00700 General Conditions, the following language may be used:

SC-4.3.5. Add a new paragraph immediately after paragraph 4.3.4 of Section 00700 General Conditions which is to read as follows: " _____"



Many specifiers cross-out or identify in some manner General Conditions paragraphs amended or supplemented in the Supplementary Conditions. When doing so, caution must be exercised to ensure that incomplete or inaccurate references do not create ambiguities. In any event, ambiguities could be resolved by conditioning the use of such markings as follows: "The requirements of the Supplementary Conditions will supersede any cross-references in the event of a conflict."

SC-1: SUPPLEMENTARY CONDITIONS TO ARTICLE 1 USE OF TERMS

SC-1.1 Modification or Introduction of Defined Terms



Section 00020 Glossary, in paragraph 1.1.2, recognizes that other defined terms may be provided in Section 00800 Supplementary Conditions. Modifications to defined terms or introduction of additional terms should be dealt with as follows:



SC-1.1.3. Add the following new paragraph 1.1.3 to the General Conditions:

"Whenever the terms or relative pronouns that follow are used in Division 0, they shall have the following intent and meanings:"

SC-1.3 Priority of the Contract Documents



Paragraph 1.3.1 states that when resolving a conflict, ambiguity or lack of clarity between Sections of the Contract Documents, Sections will be given priority in the sequence that they are listed in paragraph 2.2 of Section 00500 Agreement (unless the **Owner** and **Contractor** agree otherwise). The **Specifier** is to consult with the **State** if, in the **Specifier's** judgment, the list of Sections in paragraph 2.2 ought to be resequenced.



Paragraph 1.3.2 provides that whenever specifications, dimensions, notes, schedules or details conflict (whether within the Specifications or Drawings, or between the Specifications and Drawings, etc.), the **Contractor** shall provide the *higher performance requirement* only to the extent such outcome yields Work reasonably inferable (see interpretation in paragraph 1.2.2). This provision caused some concern to

members of the Working Group. In response, the **State** explained that the highest performance requirement has to lead to Work reasonably inferable for it to be scope Work. And further, that the **State** has a proven track record of administering this provision fairly, and it has not posed a problem in the past.



With respect to indemnification, paragraph 1.4 provides the interpretation that the indemnity provisions require the **Contractor** to indemnify both the **State** and the **Professional**, since the **Professional** acts as the representative of the **State**. This indemnity provision has been in place in **State** contracts for many years, and the **State** has a proven record of administering this provision fairly. Just the same, this requirement is undergoing review, and the **Specifier** should confirm with the **State** whether this provision should remain as is or should be supplemented.

SC-1.6 Ownership and Use of the Contract Documents



Paragraph 1.6.1 may be amended if the **Specifier** wishes to extend the clause Re: ownership and use of Drawings, Specifications and other instruments of service prepared by the **Professional**. Also, paragraph 1.6.2 which states that the **Contractor** is "...granted a limited license to..." could be amended to say, if approved by the **State**, that "...The **Contractor**, Subcontractors and Suppliers are authorized to use and..."

SC-1.7 Number of Copies of the Contract Documents



Amend this paragraph if more copies of the Drawings and Specifications (than the ten (10) prescribed) will be furnished to the **Contractor** at no cost. The **State** prefers that contractors price in their bids the cost of copies that may be needed above the 10 copies promised.

SC-2: SUPPLEMENTARY CONDITIONS TO ARTICLE 2 THE OWNER – GENERAL PROVISIONS

SC-2.5.1 Written Communication Procedures:



Amend this paragraph if the **State** and/or **Professional** wishes to use a different procedure for written communications. Keep in mind that the change order provisions in Article 10 require the **Contractor** to copy the **Owner** on all correspondence and transmittals pertaining to changes.

SC-2.7 Other Consultants Retained by the State:



If the **State** has retained a construction manager or **Owner's Representative**, testing agency, scheduling consultant or some other consultant for the Project, and such construction manager or **Owner's Representative**, testing agency, scheduling consultant or other consultant will interact with the **Contractor**, pertinent information defining their duties, responsibilities and limits of authority is best provided in paragraph SC-2.7. For contracts with a construction manager *for fee* or **Owner's Representative**, extensive supplementary conditions may be advisable for such issues as contract administration, handling of correspondence, handling of Submittals, indemnification provisions, processing of change Orders and Requests for Payment, and so forth. An example is provided on the next page.



Add the following to the General Conditions:

2.7 Owner's Representative

2.7.1. The **Owner** has retained an **Owner's Representative** not in the employ of the **Professional**, who will assist and augment the staff of the **Regional Supervisor** in administering this contract. The duties, responsibilities, and limits of authority of the **Owner's Representative**, together with special provisions describing the **Contractor's** duties and responsibilities with respect to the **Owner's Representative**, are set forth in this paragraph SC-2.7.

2.7.2. The **Owner's Representative** may assist the **Professional** and the **Owner** with review and coordination of activities associated with Record Documents, Progress Schedules, Change Orders, Disputes, operations and maintenance, material and equipment, building and equipment testing and start-up, occupancy, warranty, review and other administrative functions.

2.7.3. The **Contractor** shall copy the **Owner's Representative** on all correspondence, notices, Change Order and Change Authorization proposals, Daily Field Reports, Requests for Interpretation, Requests for Change, Progress Schedule Submittals, Submittal transmittal letters and any other documents that might pertain to the Work.

2.7.4. The **Contractor** shall also copy the **Owner's Representative** on requests for the **Owner's** and/or **Professional's** consent or approval to: (a) perform Work outside of normal working hours; and (b) interrupt operations in existing facilities or services.

2.7.5. The **Contractor** shall coordinate with the **Professional** and the **Owner's Representative** regarding job site conferences, Substantial Completion inspections, Final Completion inspections, equipment testing and start-up meetings and warranty review meetings, as necessary.

2.7.6. The **Owner's Representative** will meet with the **Contractor** and **Professional** at the site during the last week of every payment period to determine the percentages of completion of the Work and the status of the Progress Schedule. The **Owner's Representative's** approval of **Professional**-certified estimates of the Work covered by corresponding Applications for Payments shall

be a prerequisite to the **Owner's** approval and making of progress payments to the **Contractor**.

2.7.7. The **Owner's Representative** will review and provide to the **Owner** recommendations regarding **Contractor** requests for changes, Bulletins, **Contractor** proposals, Change Authorizations and Change Orders. To the extent authorized by the **Owner**, the **Owner's Representative** will direct Changes in the Work pursuant to paragraph 10.1 of Section 00700 General Conditions and will represent the **Owner** in the negotiation and settlement of the cost of Change Orders and Change Authorizations with the **Contractor**.

2.7.8. The **Professional** will furnish a copy of the **Professional's** certification of final payment to the **Owner's Representative**. The **Owner's Representative** will recommend to the **Owner** whether to concur with the **Professional's** certification.

2.7.9. The **Owner's Representative** may have a representative at the site periodically or daily if required to monitor the progress of the Work and observe the quality of in-progress and completed Work. Observations by the **Owner's Representative** and/or any of its personnel shall not: (a) create or impose any duty on them to make the observations for the benefit of the **Contractor** or any other person; (b) relieve the **Contractor** from its obligation to perform the Work in accordance with the Contract Documents; or (c) represent acceptance of defective Work.

2.7.10. The **Owner's Representative** will join with the **Contractor**, **Professional** and **Owner** in any joint inspections of the Work undertaken to determine the status of the Work subsequent to the **Contractor's** notice that it considers that the Work, or part of the Work designated in the notice has been substantially complete or partially complete, or that the Work has been completed and is ready for final payment. If the **Professional** does not consider the Work substantially or partially complete, or ready for final payment, the **Professional** in consultation with the **Owner's Representative** will prepare an itemized written list of incomplete and unsatisfactory Work sufficient to demonstrate the basis for that determination.

2.7.11. The **Owner's Representative** shall be the administrator of the Project Specific Website and shall establish the policies and procedures for the use of the website on this project. The **Contractor** shall comply with all such policies and procedures.

SC-3: SUPPLEMENTARY CONDITIONS TO ARTICLE 3 THE PROFESSIONAL - GENERAL PROVISIONS



If the State retains a consultant, other than the designer who prepared the Contract Documents, to function as the **Professional** during construction, several changes are required in Section 00700 General Conditions to set out the duties, responsibilities and limits of authority of that consultant functioning as the **Professional** and the designer who prepared the Contract Documents. A sample follows on the next page.



A sample follows on the next page:

ARTICLE 3 THE PROFESSIONAL - GENERAL PROVISIONS**3.1 Owner's Representative:**

3.1.1 The Professional shall be the Owner's representative during the Contract Time period. The Professional's duties, responsibilities, and limits of authority set forth in the Contract Documents shall not be changed without the prior written consent of both the Owner and Professional.

3.1.2 The Professional will make On-Site Inspections at intervals appropriate to the stages of the Work to observe the quality and quantity of progress and completed Work to determine actual quantities of Unit Price Work completed by the Contractor and to determine whether the Work is being executed so that the Work when completed will be in accordance with the Contract Documents. Based on the On-site Inspections, the Professional will endeavor to guard the Owner from Defective Work and to keep the Owner informed of the progress of the Work.

3.1.3 If the Professional assigns Resident Project Representatives, their duties, responsibilities and limits of authority will be given in the Contract Documents or at the pre-construction conference. Unless delegated by specific written notice from the Owner, the Resident Project Representative does not have any authority to order any changes in the Work or authorize any adjustments in Contract Price or Contract Time.

3.1.4 The Professional will have authority to disapprove or reject Work that the Professional believes to be Defective, and to require inspection or testing of any Work whether or not such Work is fabricated, installed or completed. The Contractor shall take prompt corrective action upon receiving any Defective Work notice from the Professional.

3.1.5 On-Site Inspections by the Professional and/or Resident Project Representatives shall not create or impose any duty on the Professional or Resident Project Representatives to make the On-Site Inspections for the benefit of the Contractor or any other third party. On-Site Inspections will not relieve the Contractor from its obligation to provide the Work in accordance with the Contract Documents or represent acceptance of Defective Work.

3.1.6 Inspections by the Resident Inspector(s) shall not create or impose any duty on such Resident Inspector to make the observations for the benefit of the Contractor or any other third party. Any such inspection will not relieve the Contractor from its obligation to provide the Work in accordance with the Contract Documents or represent acceptance of Defective Work.

3.2 Clarifications and Interpretations:

3.2.1 The Professional will issue with reasonable promptness written clarifications or interpretations as the Professional may determine necessary or in response to a Contractor written request for interpretation. If the Contractor believes that a written clarification or interpretation issued by the Professional justifies an adjustment in Contract Price or Contract Time, the Contractor shall promptly notify the Professional in writing before proceeding with the Work involved.

3.2.2 In any such case, if the Contractor is properly authorized in writing to proceed with the Work involved before full agreement is reached on the extent of any such adjustments (if any are determined to be due at all), the Contractor shall furnish to the Professional upon request from the Professional, those actual cost Records specified in paragraphs 11.4 and 11.5.

3.3 Minor Variations and No-Cost Changes, Minor Delays:

3.3.1 The Professional may authorize minor variations in the Work, order no-cost changes consistent with the Contract Documents, or cause minor Delay if, in the Professional's judgment, such variation, no-cost change or Delay does not justify any adjustment in Contract Price or Contract Time. Minor variations will be ordered in writing, no-cost changes will be authorized by Change Authorization. If the Contractor believes any minor variation or no-cost change justifies an increase in Contract Price or Contract Time, the Contractor shall promptly notify the Professional in writing before proceeding with the Work involved and follow the procedures in paragraph 3.2. Notice requirements for minor Delays are provided in paragraph 8.7.4.

3.4 Determinations by the Professional:

3.4.1 The Professional will be the interpreter of the requirements of the Contract Documents and, in such capacity, will render determinations on the acceptability of the Work. Notices, proposals, claims or other matters relating to the acceptability of the Work, the interpretation of the requirements of the Contract Documents or any adjustment in Contract Price or Contract Time shall be referred to the Professional in writing requesting a formal written determination, which the Professional will render within a reasonable time. If the Contractor disagrees with any such Professional determination, the Contractor may deliver notice of a claim and a claim submittal within thirty (30) Calendar Days in accordance with the procedures and within the deadlines set forth in Article 15 Disputes.

3.4.2 The rendering of any interpretation or of any determination on any notice, proposal, claim or other matter relating to the acceptability of the Work or to any adjustment in Contract Price or Contract Time will be a prerequisite to the exercise by the Contractor of any rights or remedies the Contractor may otherwise have under the Contract Documents or by Law concerning any such issue.

3.5 Limitations on the Professional's Responsibilities:

3.5.1 The Professional's authority to act under this Article 3 or elsewhere in the Contract Documents, or any decision made by the Professional in good faith to exercise or not to exercise such authority, shall not give rise to any duty or responsibility of the Professional to the Contractor, to any Subcontractor or any Supplier, to any surety or to any third party.

3.5.2 The Professional is not responsible for the Contractor's Means and Methods, safety precautions and programs related to safety, or for the Contractor's failure to execute the Work in accordance with the Contract Documents. Furthermore, the Professional is not responsible for any act or omission of the Contractor or of any Subcontractor, Supplier or

anyone for whose acts the **Contractor** or any Subcontractor or Supplier may be liable.

SC-4: SUPPLEMENTARY CONDITIONS TO ARTICLE 4 THE CONTRACTOR – GENERAL PROVISIONS

SC-4.2.1 Management, Supervision and Personnel:



MICHSPEC™ expressly makes a reference to “...*management and supervision*...”, as an acknowledgment that, for a large contract, the **Contractor** is likely to assign a Project Manager or Construction Manager to the Work, in addition to the superintendent.

SC-4.2.2 Authority of Superintendent



Some general conditions state that “...the superintendent shall represent the **Contractor**...” The **State** of Michigan’s Model Specifications instead state that “...the superintendent shall be the **Contractor’s** representative *at the site* and shall have authority to act on behalf of the **Contractor**...” (emphasis added). This provision recognizes that, as long as the contract justifies assignment of a **Contractor** Project Manager, the superintendents may not have authority for the **Contractor** on insurance, progress schedule, change orders, schedule of values and progress payment negotiations, warranties, and so forth. The **Specifier** may use SC-4.2.2 to clarify the delineation of responsibilities and limits of authority between the **Contractor** Project Manager and the superintendent. If no such provision is used in Section 00800 Supplementary Conditions, paragraph 4.2.2 allows such procedure to be agreed upon after the **Contractor** is selected anyhow.



Paragraph 4.2.2 allows the **Owner**, in the reasonable exercise of its discretion, to require the **Contractor** to replace the **Contractor’s** superintendent. General Contractor representatives attending working sessions with the **State** have agreed to the wording of paragraph 4.4.2. They stated that reasonable exercise of the **State’s** discretion is preferred to objecting for “good cause, . Which was the suggested alternative.

SC-4.2.3 Survey and Layout



General contractors generally oppose the use of general conditions provisions which add scope to Divisions 2 through 16 of the Work. Paragraph 4.2.3 strikes a compromise by requiring the **Contractor** to use a registered land surveyor when locating building lines and slab elevations, while stating that “Surveying for other aspects of the Work shall be as required by or indicated in the appropriate technical Specifications.” This provision should be coordinated with the requirements of the technical Specifications.

SC-4.5 Patents and Royalties



Some members of the Working Group raised the argument that since the designer designs/specifies products, someone other than the **Contractor** should pay for any patent fees or royalties. In the **State’s** judgment, these are costs of materials and equipment, and bidders can price them simply by flowing this provision to suppliers as long as the material or equipment is part of the scope. Likewise, when a change is negotiated, it would be appropriate to price these fees into the cost of the change order. It should be noted that payment of royalties by the **Contractor** is also required by AIA A210 in paragraph 3.17.

SC-4.7 Record Documents



Specifiers employ a variety of provisions to ensure that Record Documents are provided by the **Contractor** when and as required.

Paragraph 4.7 reflects the **State's** standard procedure, i.e., finalized Record Documents shall be required for the **State's** processing of final payment. According to paragraph 12.1.3, it is the **State's** standard procedure to require the Schedule of Values to include a pay item of two percent (2%) of the Contract Price to cover payment for the finalized Record Documents.

SC-4.9 Indemnification



The indemnification provision in paragraph 4.9 (for bodily injury and property damage) tracks those used in most standard general conditions. Essentially, the **Contractor's** indemnification obligations apply unless the liability for loss or damage results from the sole negligence of the **Owner** and/or **Professional**.

SC-5: SUPPLEMENTARY CONDITIONS TO ARTICLE 5 SUBCONTRACTORS AND SUPPLIERS

SC-5.1 Employment of Subcontractors



Paragraphs 5.1.1 through 5.1.5 reiterate the provisions in paragraph 8.3 of Section 00100 Instructions to Bidders about the **State's** right to object to prospective Subcontractors. As a point of clarification, under Section 00100 Instructions to Bidders, if the **State** objects to any nominated Subcontractor before award for good cause, the Apparent Low Bidder may nominate a replacement Subcontractor, self-perform that part of the Work or withdraw its Bid without forfeiting its Bid Security.

Under paragraph 5.1.1, after Contract Award, the **State** may revoke any such **Owner's** consent given before the award "...because of subsequent violation of a material requirements of the Contract Documents..." This is not an express requirement in other standard industry contracts, however, it is included in MICHSPEC™ since certain violations as a finding of unfair labor practices or breach of nondiscrimination requirements are regarded as material breaches which may require that the Contract be voided or rescinded.

Paragraph 5.1.2 mirrors paragraph 8.2 of Section 00100 Instructions to Bidders, except that applies to objections after Contract Award. It is relevant only to the extent the **Contractor** intends to add or substitute a Subcontractor to provide Work within a Division, Specification Section or Trade for which nomination was required in Section 00430 List Of Subcontractors.

Paragraph 5.1.3 allows the **State** to object to any Subcontractor for its convenience, i.e., reason for the objection is not covered by paragraph 5.1.1 or 5.1.2, and to increase the Contract Price and/or the Contract Time accordingly.

SC-5.2 "Or Equal" or Substitute Items



No distinction is drawn in paragraph 5.2 as to the degree of scrutiny that "or equal" and substitute proposals are subjected to (for a different approach, refer to EJCDC's Standard General Conditions of the Construction Contract [5]). If the **Specifier** prefers less rigorous procedures for **Contractor** "or equal" proposals, and the **State** consents to

such procedures, paragraph 5.3 of Section 00700 General Conditions will have to be revised accordingly. According to paragraphs 5.2.2.6 and 5.3, the **State** is entitled to be reimbursed by the **Contractor** for the time expended by the **Professional** in reviewing a substitution proposal, whether or not the Specification Section in question is listed in Schedule 1.6 in Section 00440 Schedule of Materials and Equipment. On the other hand, no reimbursement is required for "or equal" proposals for materials and/or equipment not listed in Schedule 1.6 of Section 00440. If the opposing outcome is sought, then paragraph 5.2.2 should be revised to exclude the condition "...which are actually listed in Schedule 1.6 of Schedule 00440 Schedule of Materials and Equipment...", and paragraph 5.2.3 would no longer be needed.



Paragraph 5.2.2.1 provides that the **State** is to get the entire cost and schedule savings to be accrued from any approved "or equal" or substitute item, unless the **State** and the **Contractor** agree otherwise. Such agreement may be entered into on a case by case basis, or be dealt with by the partnering agreement established for the contract, if established, as allowed under the terms and conditions of paragraph 2.6.

SC-6: SUPPLEMENTARY CONDITIONS TO ARTICLE 6 SUBMITTALS

SC-6.1.1 Copies of Submittals



The **Specifier** is advised to ensure proper coordination between paragraph 6.1 and the technical Specifications (e.g., Section 01340 on Submittals and other Sections). For instance, paragraph 6.1.1 requires a mylar or sepia together with blue line drawings, but does not specify the number of blue line copies. Based on paragraph 7.2 of the Agreement, the mylar or sepia requirement will supersede any conflicting requirement in the technical Specifications, however, the specific number of copies required will have to come from Section 01340 or another Section in Divisions 1 through 16.

SC-6.4 Review and Return of Progress Schedule Submittals



Progress Schedule Submittals are considered non-technical Submittals, and thus are not subject to the **Professional's** approval. Instead, when the **Professional** has no further objection to any Progress Schedule Submittal, or a resubmission is not required, subject to any comments or objections noted, Section 01310 Progress Schedule provides that the **Professional** will return a Progress Schedule marked "Resubmittal Not Required." In contrast, Shop Drawings are, when appropriate, to be approved.

SC-6.5.1 Time Allowed for the Review/Return of Submittals



Paragraph 6.5.1 specifies a relative short period of ten (10) to fifteen (15) Days within which the **Professional** is to review and return of Submittals. If longer turnaround times are required for electrical equipment, mechanical equipment, etc., those requirements will have to be delineated in the appropriate Division, or in Section 00800 Supplementary Conditions, or in Section 01340 or elsewhere in the General Requirements.

SC-6.5 Review of Repeat Submittals



MICHSPEC™ allows the **Professional** the latitude to waive charges for re-reviews after the second review of the same Submittal, if reasonable under the circumstances. For instance, the **Professional** may not count a resubmittal requiring significant rework if, arguably, the resubmission may be due to causes not entirely within the control of the **Contractor**. The **Specifier** should use paragraph SC-6.5.3 in the event the **Specifier** intends to change the conditions under which the **Contractor** shall be assessed a sum for re-reviews, or to pre-establish a price per re-review.

SC-7: SUPPLEMENTARY CONDITIONS TO ARTICLE 7 LEGAL REQUIREMENTS AND INSURANCE

SC-7.1.1 Laws; Permits Which Include Approvals and Licenses:



Paragraphs 7.1.2 and 7.1.3 have been customized to reflect the permitting requirements that apply to **State** projects. The **Specifier** needs to review these provisions carefully in case they need to be supplemented to fit the particulars of a specific project. Also, if the **State** has obtained any permits whatsoever, it is advisable to either make an appropriate reference through SC-7.1.1.2 in Section 00800 Supplementary Conditions or, if relevant information is provided in Section 00210 Information for Bidders, to refer the reader to Section 00210. Environmental projects or projects from **State** agencies other than the **DMB** may fall under this category. Last, but not least, it might be advisable to include such permit with the Contract Documents.

SC-7.4.1 Additional Bonds



Use this paragraph in Section 00800 Supplementary Conditions if any Subcontractor performance Bond, manufacturer performance Bond or other Bonds are to be required. A sample provision follows:



SC-7.4.1.1 Add the following paragraph to Section 00700 General Conditions:

7.4.1.1 For those materials and equipment specifically designated in Section 00800 Supplementary Conditions, the Contractor shall require the corresponding listed manufacturer or supplier selected by the Contractor in Section 00440 Schedule of Materials and Equipment to furnish a manufacturer performance Bond with good and sufficient surety in an amount equal to one hundred percent (100%) of the amount of the corresponding Subagreement. Manufacturer performance Bonds shall be in effect until final completion of the Work or the end of the Correction Period, whichever comes later. Manufacturer performance Bonds shall be in a form acceptable to the Owner. Manufacturer performance Bonds shall be secured from a surety acceptable to the Owner given the requirements of the Contract Documents for sureties. Manufacturer performance Bonds shall be for the benefit of the Contractor, shall secure performance of the Subagreement and shall indemnify and hold harmless the Contractor and the Surety under the Section 00610 Performance Bond and Section 00620 Payment Bond. The protection offered the Owner under manufacturer performance Bonds shall be in addition to, and not in any way in limitation of, that provided under the Section 00610 Performance and Section 00620 Payment Bond furnished by the Contractor.

SC-7.4.2 Insurer Rating



If the **Specifier** considers, or the **DMB** advises, that an insurer licensed to do business in Michigan is much preferred over an authorized insurer, then the first sentence in this paragraph should be revised accordingly (to delete the reference to sureties *authorized* to do business). Further, if the **Specifier** considers, or the **DMB** advises, that either more rigorous or more lenient ratings for insurers are applicable to the Contract, this should be accomplished by amending the third sentence of paragraph 7.4.2. Generally, an "A-" Best's rating is fine, however, the financial size rating could be as high as a Class X and still allow many insures to qualify.

SC-7.5 and SC-7.6 Liability Insurance



Paragraph 7.5.2 of Section 00700 General Conditions requires that the **Professional** and the **Owner's** and **Professional's** consultants and agents be listed as *additional insureds* by endorsement. Those parties may be identified by name in paragraph SC-7.5.2 of Section 00800 Supplementary Conditions. If a Construction Manager or another **Owner's** consultant is employed on the project, or the designer is not retained during construction, this paragraph may also require amending.



For small projects, if the **DMB** so advises, the **State's** liability insurance could be obtained by endorsing the **State** as an additional named insured in paragraph SC-7.5.2. If paragraph SC-7.5.2 is so amended, then paragraph SC-7.6 of the Supplementary Conditions should delete the OCP requirement in paragraph 7.6 of Section 00700 General Conditions. An example of how to add the **Owner** as an additional insured by amending the first sentence in paragraph 7.5.1.1 follows:



An example of how to accomplish one of the modifications follows:

SC-7.5.2. Amend the first sentence in paragraph 7.5.2 of Section 00700

General Conditions to read as follows: "The **Contractor's** liability insurance shall be endorsed to add the **Owner**, the **Professional**, the ..."



If the **Specifier** considers, or the **DMB** requests, that different liability insurance coverage limits are applicable to this Contract, this should be accomplished by amending paragraph 7.5.6 and, if appropriate, paragraph 7.6.2.

SC-7.7 Property Insurance



If, contrary to practice, the **Owner** is *not* to provide the property insurance, appropriate revisions shall be made to paragraphs 7.7.1 through 7.7.3 of Section 00800 Supplementary Conditions. Further, if the **State** intends to change the deductible on the **State's** property insurance, this should be accomplished via paragraph SC-7.7.1.

SC-7.8 Waivers of Subrogation



When the property insurer pays a claim for a loss, it is common that the insurer may wish to be subrogated to the rights of the party that suffered the loss so that the insurer may bring suit against the negligent party. It is the intent of paragraph 7.8 of Section 00700 General

Conditions to preclude any such subrogation and suit by the property insurer against the **State** of Michigan, the **Contractor**, Subcontractors, and any other parties indicated in the Supplementary Conditions via paragraph 7.8.1, as well as, the **Professional** and **Professional's** consultants (whether or not so listed). It is believed that those parties are all involved in one way or another in the Work and such claims against them should be discouraged if for no other reason than the difficulty of identifying responsibility for errors. In addition, the carrier has in theory been paid a fair premium for the risks it insured.

Depending upon the terms of the **State's** policy and the practice of the **State's** insurer at the time any particular contract is awarded, it may be necessary for each Subcontractor as well as others specifically listed as additional insureds in the project who are not parties to the construction contract to sign formal written waivers. Paragraph 7.8 of Section 00700 General Conditions requires each Subagreement to contain a waiver similar to that in the first sentence of that paragraph. Once the exact manner in which these matters are to be handled has been resolved after consultation with the **DMB**, corresponding requirements should appear in paragraph 7.8 of Section 00800 Supplementary Conditions. Some insurance policies do not permit any waiver of rights and others permit it only by special endorsement to the insurer's prescribed form. In fact, under some Builder's Risk property insurance policies, the automatic waiver of rights contained in paragraph 7.8 of Section 00700 General Conditions may void the entire coverage. This is a frustrating aspect of insurance coverage that is best dealt with by the **Specifier** by consulting with **State's** risk management personnel and must be addressed by specific endorsement on the policy.

SC-8: SUPPLEMENTARY CONDITIONS TO ARTICLE 8 PROSECUTION; SUBSTANTIAL COMPLETION

SC-8.1.1 Pre-construction Conference



Paragraph 8.1.1 provides only the basis of an agenda for the pre-construction conference. If the **Specifier** or the **DMB** wants to expand the agenda, this should be accomplished by supplementary condition or in the General Requirements.

SC-8.3.2b Normal Working Hours



Normal working hours are the hours between starting and quitting times. It is customary practice for the **DMB** to require reimbursement for costs occasioned by work scheduled outside of the timeframes specified.



The **Specifier** may wish to inform the Bidders of the dollar rate to be backcharged to the **Contractor** for Work outside of normal working hours. An example of language that may be used follows:

SC-8.3.2.1. Add the following to the General Conditions:

8.3.2.1. If Work during other than normal working hours is scheduled by the Contractor, payments by the Contractor to the State to reimburse the State for (a) the Professional's charges (including, but not limited to the Professional's agents and consultants) shall be at the hourly rate of _____ and (b) custodian and/or security personnel shall be at the hourly rate of \$ _____.



If it is known in advance that a particular contract is to be executed on an accelerated schedule, with anticipated overtime and/or weekend Work, and the **State** elects to waive reimbursement for overtime costs, then paragraph 8.3.2 is best revised for that. A sample follows:



SC-8.3.2. Amend paragraphs 8.3.2 and 8.3.3 of Section 00700 General Conditions to read as follows:

8.3.2. The Contractor shall obtain the Owner's concurrence before finalizing the schedule of normal working hours (daily working schedules) for the Contract. Normal working hours shall be in accordance with applicable laws. All Work at the site shall be performed during normal working hours, except in an Emergency or as may be required by the Contractor's safety and protection obligations. The Contractor shall provide written notice to the Owner twenty-four (24) hours before performing Work outside of normal working hours.

8.3.3. The Owner reserves the right to seek reimbursement from the Contractor for any related cost increases the Owner incurs, provided those costs are costs which the Contractor could reasonably have foreseen and which are not offset through the earlier completion of the Work resulting from working outside of normal working hours. Examples of such Owner expenses include, but are not limited to, charges for Professional, custodian/security and any other costs occasioned by working schedules extending beyond twelve hours per day or for Work on Sundays or holidays observed by the State.

SC-8.3.4 Contract Float



The provisions of paragraph 8.3.4 are significant as they require both the **Owner** and **Contractor** to calculate Late Dates in the Progress Schedule using the Contract Times for completion as opposed to any earlier dates that the **Contractor** may anticipate. This paragraph ensures that Contract Float in the Progress Schedule prepared by the **Contractor** is properly calculated, and this provision is consistent with the float sharing provisions in paragraph 8.8 and in Section 01310 Progress Schedule.

SC-8.4 Substantial Completion



Substantial Completion is a well-recognized concept in construction contracts. Traditionally, it has been held that the Work has achieved Substantial Completion *when it can be used for its intended purpose*.

In reality, a new office building may be substantially complete both when it has been finished so that it can be occupied and when a certificate of occupancy has been issued by the agency with jurisdiction. Also, the Work of constructing a treatment plant may be substantially complete when the constructed facilities can be placed on-line, continuously, to treat raw sewage. Or a new hotel may achieve Substantial Completion when certificates of occupancy are issued allowing hotel staff to move-in and ready the hotel for opening, while the contractor completes finishing out the hotel. Similarly, the Work of expanding a hospital may be substantially complete when furnishings and administrators, nurses, physicians and other hospital personnel can move-in for the purpose of readying the hospital to accept patients.

MICHSPEC™ recognizes that the traditional, rather simplistic definition of Substantial Completion stated above leaves many questions unanswered as to the extent of Work remaining for the **Contractor** after Substantial Completion.

For instance, can the Work be substantially complete before the Political Subdivision with jurisdiction certifies that the facility meets all applicable criteria and can be used for its intended purpose? In the case of a wastewater treatment plant, does start-up and demonstration testing take place after or before Substantial Completion? Or, is the **Contractor** required to finalize O&M Manuals and complete the required **State** training before Substantial Completion? MICHSPEC™ solves this dilemma by expressly stipulating in Section 00020 Glossary, that all these and other similar requirements are prerequisites to achieving Substantial Completion.



Paragraph 8.4.1 is analogous to paragraph 9.8.1 in the AIA A201 General Conditions [6] in that it requires the **Contractor** to conduct completion inspections and to provide a list of items to be completed or corrected (the **Contractor's** punch list) whenever the **Contractor** considers the Work, or portion of the Work having a separate Substantial Completion requirement) to be substantially complete. Although not expressly stated, it is intended that such completion inspection lists be developed by the **Contractor** as segments of the Work are being completed so that the performing Subcontractors are involved in the completion inspections.



It is not uncommon for the laws of some states (and it is the preference of some Specifiers) to limit the percent of Work which can be completed after substantial completion. If such a requirement is appropriate for a particular **State** project, the last sentence in paragraph 8.4.3. could be modified to read as follows: “. Neither the Work, nor any portion of the Work inspected, shall be substantially complete, unless the **Owner** can use the Work, or the designated portion of the Work inspected, for the use intended, and as long as there remains no concurrent Work at the site, except for Punch List items with a cumulative value of less than 2% of the corresponding Contract Price (except for those pay items itemized in paragraph 12.1.3)”. This provision is particularly useful when dealing with existing, occupied facilities.

It is also worthwhile to point out that paragraph 8.4 (and Section 00020 Glossary) treats Substantial Completion as applicable both to the entire Work or to any designated part of the Work. In contrast, other general conditions, such as those issued by the EJCDC/Engineer's Joint Contract Documents Committee [7], reserve the concept of Substantial Completion for the entire Work only.

SC-8.5 Owner's Partial Use of the Work



Partial Use takes place when the **State** uses or occupies a part of the Work before Substantial Completion of the entire Work, as set forth in the definition of Partial Use provided in Section 00020 Glossary. Under paragraph 8.5, Partial Use may be initiated in any of the following three cases (if a variation from any of these outcomes is sought, this should be accomplished by supplementing paragraph 8.5.1 and/or 8.5.2):

(a) following a determination by the **Professional** that a portion of the Work, for which a Contract Time for Substantial Completion is specified, has been determined to be substantially complete by the **Professional**;

(b) the **Owner** elects to use a portion of the Work for which a Contract Time for Substantial Completion is specified, even though that portion of the Work has not been determined as being substantially complete by the **Professional**; and

(c) the **Owner** elects to use any part of the Work considered by the **Owner**, **Professional** and **Contractor** to be separately functioning Work that can be used without significant interference with the completion of the balance of the Work, even though the Contract Documents do not specify a separate Contract Time for Substantial Completion for that portion of the Work.



However, and as specified in paragraph 8.5.1, no portion of the Work is eligible for a Substantial Completion determination unless such portion of the Work is specified a separate Substantial Completion requirement or unless the **Owner** elects to partially use such Work, subject to the conditions of paragraph 8.5.2. It should also be kept in mind that any Partial Use undertaken for the convenience of the **Owner** which causes an increase in the time required and/or the **Contractor's** cost to complete the Work may entitle the **Contractor** to an adjustment in Contract Time and/or Contract Price based on the terms and conditions of paragraph 8.7.

SC-9: SUPPLEMENTARY CONDITIONS TO ARTICLE 9 WORKMANSHIP; CORRECTION OF WORK

SC-9.2.1 Contractor's Warranty; Materials and Equipment Warranties



Under paragraph 9.1.1, the **Contractor** warrants that the Work will not be Defective. Defects or damage excluded from this warranty are dealt with also in paragraph 9.1.1. Michigan Law provides for a six-year limit on the term of this warranty.

Manufacturer warranties for materials and equipment shall be in effect for the duration of the Correction Period, or a longer period, if so specified.

SC-9.2.2 Testing Agencies



If the **State** has retained a testing agency for the Work, the **Specifier** may use paragraph SC-9.2.2 to outline the scope of testing and inspection to be provided by that testing agency.

SC-9.4.2 Correction Period



As with other general conditions, the **State's** Specifications use of the term "Correction Period" for what traditionally has been referred to as the "one-year warranty period". The term Correction Period is not restrictive to a one-year period, although that is generally the case. The **Contractor's** obligations to correct defective Work (including Defective materials and equipment) for the length of the Correction Period apply regardless of the length of any warranty periods provided to the **Contractor** by the respective manufacturers and suppliers. Notice that unless otherwise specified, the Correction Period commences on the date of Substantial Completion of the *entire* Work, even if the **Owner** undertakes Partial Use.

SC-9.4.4 Limitation on Contractor's Warranty for Defective Work



Paragraph 9.4.4 requires the **Contractor** to correct Defective Work, even after the Correction Period has ended. The **Contractor's** obligations for such corrective Work are subject to the qualifications stated in paragraph 9.1.1, and are further limited by Michigan Law.

SC-9.5 Special Correction Period



Per paragraph 9.5.1, Partial Use of a portion of the Work does not start the Correction Period for that portion of the Work; rather, the manufacturer warranties for that portion of the Work shall be in effect during the term of its Partial Use and then for the length of the Correction Period. Also, this paragraph makes the **Contractor** responsible for providing a special extended Correction Period for any Work, if the **Owner** undertakes Partial Use of any such Work because such Work is delayed due to any act or omission within the **Contractor's** control.

SC-9.6 Special Maintenance Requirements



This paragraph somewhat complements paragraph 9.5, in that if the **State** elects not to take over the entire Work upon its Substantial Completion, or not to take over a part of the Work designated as eligible for Partial Use, then an extended Correction Period stemming from Partial Use are not required. However, the **Contractor** shall be required to maintain that portion of the Work while idle during construction. If the design concept provides for any such circumstance, the **Specifier** may need to provide pertinent information and data by supplementing paragraph 9.6.

SC-10: SUPPLEMENTARY CONDITIONS TO ARTICLE 10 CHANGES

Negotiated Changes



Paragraph 10.1.2 reflects **State** procedures for negotiated changes. Signing the proposal or quotation is critical in the **State's** procedure, whether or not the **Contractor** is required to sign the actual Change Order document itself. The **Contractor's** quote goes to both the **Professional** and **State**. This ensures that the **State** stays abreast of what is going on, and reduces the time it takes to have a Change Order approved by the **Board**.

Constructive Changes



Paragraph 10.1.3 recognizes that changes may be ordered *constructively*, meaning that any **State** or **Professional** *written* order, determination, etc. in fact may cause a change even though at the time they may not have been perceived as such. Unlike in federal contracts, the order, approval, etc. must be in writing; the **State** purposely eliminated oral orders as causing constructive changes.

Of importance, no costs under a constructive change are compensable unless incurred in a "window" starting on the date corresponding to thirty (30) Days before the **Owner** received notice (Notice period was changed to thirty (30) days from FORMSPEC™'s standard 20 days). No notice or late notice of a change barring recovery of constructive changes is a well-established principle. In the **State's** opinion, barring costs incurred thirty (30) days before the notice is far more fair than denying all constructive change costs for untimely or no notice.

Unilateral Changes



Paragraph 10.1.4 allows the **State** to issue "unilateral changes," with one important caveat: only after negotiations of a bilateral change prove unsuccessful. Once received, the **Contractor** is obligated to

proceed as directed by the *unilateral* Change Order. The corresponding adjustments in Contract Price and Contract Time for the unilateral change shall be made using the provisions of paragraphs 11.3.1.4 and 11.2, respectively.

Differing Site Conditions



Paragraph 10.2.2 is quite similar to federal provisions, except for the concept of allowing the **Owner** up to ten (10) Days to have Work affected by the differing *subsurface* conditions (emphasis added) proceed without owing the **Contractor** an extension in Contract Time for those ten Days. No similar grace period is allowed for costs occasioned by any such suspension of Work, such as costs of idle crews or equipment, all of which may be recoverable under the provisions of paragraph 10.2.2.1.

It should be emphasized that the 10-day period allowed to the **Owner** to take steps to resolve issues applies only to differing subsurface conditions (soils, groundwater, etc.) and not to differing conditions relating to existing physical facilities (e.g., buried footings that were unknown, HVAC duct hidden behind walls, etc.)

Another nuance of MISCHSPEC™ differing site conditions provisions is that they similarly shall apply to instances of reference points which actually differ from those shown or indicated in the Contract Documents.

SC-10.3.1 Underground Utility Allowances



The last sentence provides that the **Contractor** shall bear the risk of differing conditions of Underground Utilities, except as provided under MCL 460.701, in paragraph 10.3.2, or by any Allowance specific to Underground Utilities. The **Specifier** is referred to 1974 PA 53, as amended, MCL 460.701 et seq. for a reading of that statutory provision. Pursuant to paragraph 10.3.2, the **Contractor** does not bear the risk of Underground Utilities not previously located and that could not reasonably have been foreseen. The third caveat contemplates the possibility that the Contract Documents may contain an Allowance(s) for Underground Utilities, whether shown or indicated or not previously located, in which case the **Contractor** shall be entitled to adjustments in Contract Price and Contract Time for any associated costs and delays. According to the discussion on Allowances in Section 00120 Supplementary Instructions, Underground Utility Allowances will most likely represent Provisionary Allowances, unless somehow the scope of Work is detailed in the Contract Documents, which is unlikely.

SC-10.5 Incidents With Archaeological Features



Section 00020 Glossary contains a definition of what constitutes an Archaeological Feature. This is a standard definition in the FORMSPEC™ Michigan Model, and it is provided to reduce the risk of arguing what is and what is not an Archaeological Feature.

SC-10.8 Change Orders and Change Authorizations



In the **State Model Specifications**, a Change Order is a written instrument *signed by the Owner* which amends the Contract Documents (refer to Section 00020 Glossary). A Change Order thus is equivalent to a *Contract Modification* in federal contracts, and is duly executed when signed by the **State**. Unlike other construction owners, only the **State** signs a Change Order. The **Contractor** does not sign a Change Order instrument, however, a signed **Contractor** quotation is required to be attached to and incorporated into every Change Order. Refer to paragraph 10.8.6. The **Specifier** should confirm with the **State** that **Contractor** signature on Change Orders is still not required, otherwise, this paragraph will require amending. Samples of how to amend paragraphs 10.8.2, 10.8.3 and 10.8.6 to accomplish a procedure requiring **Contractor** signature on Change Orders follow:

10.8.2. A *bilateral* Change Order duly signed by both the **Owner** and **Contractor**, and which does not incorporate a **Contractor** reservation of rights to claim additional adjustments, shall memorialize their agreement as to the adjustments in Contract Price and/or Contract Time made by such Change Order. Any such *bilateral* Change Order shall constitute an all inclusive settlement for all changes, Delay and costs, whatsoever, and the **Contractor's** signature represents a waiver of all rights to file a subsequent proposal on account of that Change Order, Change Authorization or the Work or a claim under Article 15.

10.8.3. A presumed *bilateral* Change Order duly signed by the **Owner** and **Contractor**, but which is signed by the **Contractor** with a reservation to claim additional adjustments shall be regarded as a notice of claim under the dispute resolution provisions of Article 15 and shall be pursued as provided in Article 15, except as the **Owner** and **Contractor** may otherwise agree.

10.8.8. Subject to the provisions of paragraphs 10.8.2 through 10.8.4, it is a requirement of the Contract Documents that all Change Orders duly signed and issued by the **Owner** shall be signed by the **Contractor** as well, regardless of whether or not the **Contractor** uses a reservation of rights.

On the other hand, a Change Authorization is a written order documenting either no-cost changes in the Work or minor variations not modifying Contract Price or Contract Time. To the extent the **Contractor** believes that a Change Authorization does increase Contract Price or Contract Time, or does provide for changes in the Work, paragraph 3.3 obligates the **Contractor** to give notice to preserve the right to recover on that Change Authorization and to proceed as per paragraph 3.2.

A Change Authorization does not require **State** approval, and is signed by the **Professional** and **Contractor**. Examples of proper use of Change Authorizations are: (a) authorization for minor variations in the Work, not affecting Contract Price or Contract Time, (b) authorization to tap a Provisionary Allowance, provided that the State has approved such action, (b) authorization to provide contingent Unit Price Work because of conditions encountered at the site, (c) administrative changes not involving Contract Price or Contract Time adjustments, etc., (d) recognizing variations in quantities as acceptable, and so forth. In the event that the **State's** Change Authorization form is known as a "No Cost or Time Change Authorization," then use of a Change Authorization involving increases in costs to the **Contractor** but not increasing Contract Price will be not in strict accordance with such title.

SC-10.8 Mutual Accord and Satisfaction



MICHSPEC™ promotes the use of forward pricing procedures. Consequently, when the **State** executes an otherwise presumed *bilateral* Change Order, paragraph 10.8.2 expressly sets forth the **State's** expectation that the **Contractor's** signature on the attached Bulletin and proposal represents a settlement for all changes and for any Delay and all costs, and a waiver of any future proposal or claim.

Paragraphs 10.8.1 and 10.8.2 are to be used together with the Fee procedures given in paragraph 11.11, which provide (a) an incentive for the **Contractor** to quote changes on a lump sum basis, by awarding a higher Fee for lump sum changes than for cost reimbursable changes (a lump sum change is inherently riskier than a cost reimbursable change); and (b) additional specific consideration when the **Contractor** signs a Change Order without reserving the right to claim additional monies for that change later on. Under paragraph 11.11.3, the Fee allowed for changes shall be reduced by one-third if the **Contractor's** proposal includes a reservation of rights.

SC-11: SUPPLEMENTARY CONDITIONS TO ARTICLE 11 CHANGES IN CONTRACT PRICE; CHANGES IN CONTRACT TIME



The **Specifier** shall consult with the **DMB** before making revisions to the provisions in Article 11.

SC-11.1.1 Proposal or Claim Quotations



Paragraph 11.1.3 reflects **State** procedures for processing change quotations. Notice that sixty (60) Days of turnaround time altogether are required for acceptance of a **Contractor** quotation.

SC-11.1.5 Proposal or Claim Quotations



This paragraph requires Fee quotations to segregate costs for adds and deducts. Also, if the **Contractor** intends to earn a 7% Fee for handling the Work involved of a Subcontractor (with the Subcontractor receiving may be a Fee of 20%), that Subcontractor shall be nominated and the quotation for that Work involved shall come from the nominated Subcontractor. In the alternative, the Work involved shall be priced as self-performed Work, and use a 20% (or 15%) Fee for the **Contractor** and exclude the 7% Fee for handling Subcontractors.

SC-11.4 Direct Craft Labor and Estimating Guide



This paragraph is intended to cover craft labor performing *direct Work*, e.g., erecting formwork, erecting rebar, etc. or indirect activities (e.g., clean-up, loading and unloading, etc.) through crew foremen. Area/general foremen, superintendent and non-manual personnel labor costs are recoverable through paragraph 11.8.1.1, provided the schedule is extended or Work is performed beyond normal working hours.



If the **Specifier** intends to change the estimating guide for negotiating labor costs, this should be accomplished in paragraph 11.4.1 of the Supplementary Conditions. The **Specifier** should recognize that the applicability of R.S. Means rates or the rates of any other guide diminishes when *insufficient quantities* are involved.

SC-11.10 Non-reimbursable Costs covered by the Fee

This paragraph is intended to make it clear that all other costs not allowed as direct costs under paragraphs 11.4 through 11.9 are reimbursed through the Fee for the Work involved. Categories of costs covered under paragraph 11.10 are (a) home office overhead, and (b) lost opportunity and financing costs.

SC-11.11 Change Order Fee Provisions

Paragraph 11.11.1 stipulates a **Contractor Fee** limit of twenty percent (20%) for lump sum, bilateral self-performed changes. Per paragraph 11.1.2, for cost-reimbursable changes (actual cost), the maximum Fee percent for the **Contractor** is fifteen percent (15%). Corresponding **Contractor's** margins for the Work of Subcontractors are seven percent (7%) for lump sum changes and five percent (5%) for actual cost changes.

The Fee is for negotiated profit and costs described in paragraph 11.10; unlike federal contracts, no formula is given for negotiating profit (which usually is considered to range from 3% to 12%). Fee is applied to labor, materials and equipment, Subcontract, construction equipment and general conditions costs. Fee is not applied to Fees of any Subcontractor. For normal changes, it is likely that the **State** will simply use the maximums when negotiating a change. On the other hand, for large changes, which could be bid in the open market, the **State** may opt to negotiate with the **Contractor** as long as the Fee reflects market rates, i.e., 5% to 8%, as opposed to changes rate, i.e., 15% or 20%.

SC-11.12 Unabsorbed Home Office Overhead

Paragraph 11.2 is intended to reimburse the **Contractor** for increases in home office overhead chargeable to the Contract when, due to compensable reasons, all the Work is not completed within the Contract Time. If any home office overhead is owed to the **Contractor** under paragraph 11.12.2, that Fee is not meant to offset any Fee calculated under paragraph 11.11. Fee under paragraph 11.11 is earned when Work is added to the Contract. Fee under paragraph 11.2.4 is allowed with no additional Work, and merely replenishes home office overhead allocable to the Contract which was used without a corresponding amount of Work being performed and billed. Arguably, if completion extends beyond the Contract Time, not all the Contract Price is billed before the expiration of the Contract Time, which means that a portion of the **Contractor's** overhead was not offset through billings.

SC-11.13 Early Completion

Paragraph 11.11.3 provides a procedure for advancing Contract Time to match an early completion scenario, and a corresponding level of liquidated or actual damages. On the other hand, if such can not be agreed upon between the **Owner** and **Contractor**, then paragraph 11.13.5 provides, subject to certain conditions, for payment of fifty percent (50%) of the **Contractor's** Delay costs otherwise allowed under Article 11.

SC-12: SUPPLEMENTARY CONDITIONS TO ARTICLE 12 REQUESTS FOR PAYMENT; FINAL PAYMENT AND ACCEPTANCE**SC-12.1.1 Schedule of Activity Values**

The **State Model** relies on using a traditional Schedule of Values subdividing the Contract Price into pay items. Paragraph 12.1.1 makes reference to a more detailed schedule of values subdividing pay items into the Progress Schedule Activities. In Section 01310 Progress Schedule, Activity-driven schedule is called the Schedule of Activity Values.

SC-12.1.3 Close-Out Pay Items

The **State Model** does not provide for retainage, i.e., withholding a percentage of earned payments, as prescribed by 1980 PA 524. However, under paragraph 11.1.3, six percent (6%) of the Contract Price is to be reserved for payments for close-out items. The first close-out item covers Fire Marshall approval, certificate of occupancy approvals and other code approvals "...as specified in the Contract Documents..." For this provision to have meaning, it is important for the **Specifier** to determine whether any such code approvals are required and to itemize them in Section 00800 Supplementary Conditions or in the General Requirements.



If the scope of what is included within each of the three (3) close-out pay item differs for a particular project, the **Specifier**, after securing the **State's** consent, should amend paragraph 11.1.3 accordingly.

SC-15: SUPPLEMENTARY CONDITIONS TO ARTICLE 15 DISPUTES

This Article generated quite a bit of discussion amongst Working Group members. As explained by the **State**, the dispute provisions in question represent an informal dispute resolution procedure in place within **DMB** for some time. The procedure has worked well, and met the test of time.

END-OF-SECTION

The expression "**END OF SECTION 00800**" should be centered at the bottom of the last page of Section 00800. Notice that Section 00825 Forms has been removed from Division 0 of the Specifications; instead, the State anticipates placing these sample forms in Division 1.

PREPARING CONTRACT DOCUMENTS FOR EXECUTION



This step involves the **Specifier** (a) replacing Sections (or parts of Sections) issued as *blanks* with the Bidding Documents with the completed forms provided by the Bidder awarded the Contract (**Contractor**), and (b) filling out selected paragraphs in a few of the Sections issued with the Bidding Documents. This discussion, however, focuses on MICHSPEC™ Sections, as opposed to what other steps the **Specifier** may go through to recast the entire Bidding Documents as conformed Contract Documents (i.e., is Addenda information simply bound as 900-series Sections or incorporated into the proper Sections on the page modified by Addenda?).

SECTION 00300 BID FORM AND BID FORM ATTACHMENTS



Replace *the blank* Article 6 of to Section 00300 Bid Form and Section replace the *blank* 00320 Non-collusion Affidavit issued with the Bidding Documents with the corresponding completed Section 00300 Bid Form and Section 00320 Noncollusion Affidavit submitted by the **Contractor**. If any of the Bid Form Attachments were revised after Bid opening, include the forms submitted with the Bid and all such revisions.

SECTION 00400 QUALIFICATION SUBMITTALS



If any Qualification Submittals are to be made part of the Contract Documents, replace the blank forms with the corresponding **Contractor's** Qualification Submittal Forms. Qualifications Submittals that may be made part of the Contract Documents include: Section 00410 Bid Breakdown, Section 00420 Questionnaire, Section 00430 List of Subcontractors and Section 00440 Schedule of Materials and Equipment. The last two Qualification Submittals contain information which may belong with the Contract Documents. If no Qualification Submittals are to be made part of the Contract Documents, the **Specifier** should simply enter "NONE."

SECTION 00500 FORM OF AGREEMENT



Based on paragraph 15.2 of the Instructions to Bidders, the Bidder awarded the contract shall send executed Section 00500 in triplicate to the Owner within 15 days after receiving the Notice of Award. The Table of Contents on page 00500-1 shows those articles in Section 00500 which are to be "completed with the bidding documents" and those which are to be "completed upon award of the contract". The following instructions deal with the completion of the latter articles.

Identification of Contracting Parties



The blanks in the paragraph immediately preceding Article 1 can be filled in given that the **Contractor** is known.

Article 2 Itemization of The Contract Documents



As previously indicated, although some blanks in paragraph 2.2 of Section 00500 Agreement may have been filled out when preparing the Bidding Documents, others could not have been. In either case, the following suggestions are made regarding the information intended to be provided in these blanks:

Paragraph 2.2.1 – Agreement/Attachments to the Agreement/Addenda



In paragraph 2.2.1, there is a space for the brief description of attachments which are intended to be attached to Section 00500 Agreement, as well as, blanks to indicate the beginning and ending Addenda numbers issued during the bidding. If Section 00520 was included with the Bidding Documents, then this is a necessary entry. If there are no attachments, then the **Specifier** should enter "**NONE**" in the space provided.

Paragraph 2.2.2 – Supplementary Conditions/Supplementary Instructions



The space provided is intended to identify any special attachments that were included with Section 00800 Supplementary Conditions and Section 00120 Supplementary Instructions, and that are intended to be made part of the Contract Documents. One attachment for sure to Section 00800 will be the Schedule of Wage and Fringe Benefits. In some instances, permits or special forms may have been attached to either Section, and if such is the case, this space allows for them to be separately identified.

Paragraph 2.2.4 – Divisions ___ through ___ and Drawings



The space provided is intended to show the beginning and ending numbers of the Divisions of the technical Specifications (e.g. 2 and 16, or 17, if the Specifications are CSI-conformed). In addition, there is a space for a brief description of the title to be used for the Drawings and the date shown on such.

Paragraph 2.2.6. Section 00030 Advertisement, etc. etc.



If the Bidding Documents included any attachments to Section 00030, or additional attachments to Section 00100, they should be made part of the Contract Documents by provision in Section 00520. There is no space provided in this paragraph for the identification of any such attachments which were appended to Section 00030 Advertisement or Section 00100 Instructions to Bidders and that are intended to be made part of the Contract Documents.

Paragraph 2.2.9 – Contractor's Qualification Submittals



The space provided is for the listing the Section numbers of Qualification Submittals received after Bid opening that have been made part of the Contract Documents. If none will be made part of the Contract Documents, simply enter "**NONE**".

Article 3 -- Contract Price



Paragraph 3.1 includes a blank for the Contract Price which can also now be filled in given that information is known. Ensure the amount includes any Alternates selected by the **State** and is exactly consistent with the figures included in the Notice of Award issued by the **State**.

Article 4 -- Contract Times and Liquidated Damages



Generally there is no difference whatsoever between Contract Time and liquidated damages information used in Section 00500 Agreement provided with the Bidding Documents (including Addenda) and the conformed Section 00500 Agreement. If such information is re-entered into the conformed Section 00500 Agreement, the **Specifier** shall double check the data to ensure no inconsistencies.

Execution Block



The signature block is to be executed before the "attesting" individuals sign the Section 00500 Agreement. Recall that the Agreement is to be executed in triplicate. Whether the **Specifier** or **DMB** conforms Section 00500 Agreement, enter the respective addresses for the **State** and **Contractor** (for service of process).

Documents Evidencing Authority



Documents evidencing authority to bind the **Contractor** are to be completed when signing Section 00500 Agreement. If the **Contractor** is a partnership, and each partner signs the Agreement, the Certificate of Partnership Authority form is not required.

SECTION 00520 ATTACHMENT A TO THE AGREEMENT



Except as explained below, generally, there is no difference whatsoever between the information on Section 00520 Attachment A to the Agreement provided with the Bidding Documents (including Addenda) and the conformed Attachment A to the Agreement. If Contract Time and liquidated damages information is re-typed when conforming Attachment A to the Agreement, the **Specifier** shall double check the data to ensure no inconsistencies between the advertised and conformed Section 00520.



If subsequent to Bid opening, it comes to light that there is an applicable regulation or any other particular document(s) that the **State** and **Contractor** mutually agree is/are part of the Contract Documents, this can be accomplished by means of supplementing Article 2 of the Agreement in the conformed Section 00520. Also, if the **Specifier** knows of any documents to be issued after the date of execution of Section 00500 Agreement which are part of the Contract Documents, and such documents are not itemized in paragraph 2.3 of the conformed Section 00500 Agreement, Section 00520 Attachment A may identify those Contract Documents.

SECTION 00610 PERFORMANCE BOND AND SECTION 00620 PAYMENT BOND

Based on paragraph 15.2 of the Instructions to Bidders, the Bidder awarded the Contract shall send executed Section 00610 Performance Bond and Section 00620 Payment Bond (with each Bond attaching a separate certified copy of Power of Attorney) within fifteen (15) Days after receiving the Notice of Award. One set of the Contract Documents shall include the original Bonds executed by the **Contractor** and surety. The other two sets shall include initialed copies of the originals. Notice that the date on each Bond shall be the date the **State** awarded the Contract.



It is recommended that the Bond forms sent to the Contractor for execution include the following information: (i) the name of the **Contractor**, (ii) the Bond penal sum, and (iii) the title of the Work (in the spaces provided under the WHEREAS paragraph).

SECTION 01310 PROGRESS SCHEDULE

The **State Model Specifications** include four types of Progress Schedule Specifications. One Specification is based on the use of cost-and-resource loaded Critical Path Method (CPM) schedules. Another Specification relies on the use of cost-loaded Bar Chart schedules. The other two represent versions without the cost-loading requirements. If the package received from the **DMB** includes two or more Model Specifications, select the proper Specification based on the comments furnished below.

Selecting the Proper Specification

Both, the Short Form CPM and Bar Chart Specifications, use consistent terminology and provisions, however, they are intended for different applications. Fundamentally, the **Specifier** should consider using the CPM Specification on "sequential" contracts, where the sequence in which specific parts of the Work are installed and tested controls achievement of Contract Times. Conversely, the Bar Chart Specification is well suited to "bulk production" contracts where installing overall monthly or weekly quantities prevails over where (on the site) and when specific components are installed.

It is industry practice to use CPM scheduling when the scope of the Work in a multi-year contract involves hundreds of discrete Activities having complex sequence relationships. Therefore, the CPM (Short Form) Specification is geared toward contracts for multiple trades, involving a general contractor (who may or may not perform any Work) and many trade Subcontractors and Suppliers. It is also well suited for use on contracts with significant scope not only in installation Activities, but also in equipment procurement, Submittals, interfaces with other work, start-up testing and commissioning. Examples include: contracts for multi-million dollar modifications to existing treatment facilities; large facilities contracts involving site work, structural, mechanical equipment and electrical work; and large civil contracts in urban areas that span more than one construction season.

The Bar Chart Specification is well suited to contracts with a limited number of technical Specifications, i.e., relatively few trades, and characterized by simple, serial logic. Examples include contracts for sewer lines or roadways; contracts involving plant modifications of limited scope; maintenance

contracts for piping work only, or electrical work only; and so forth. Of relevance, even when CPM schedules are used, they are often summarized into Bar Charts for presentation purposes.



Remove the Cover page and its back blank page from the package received from the **DMB**.

Terms & Definitions – Glossary, Section 00020



There are a number of terms essential to Section 01310 Progress Schedule Specification that are defined or interpreted in Section 00020 Glossary. In many instances, the definitions and interpretations provided for CPM-related terms differ substantially from their common understanding. How such terms as Activities, Critical Path, Contract Float, Total Float, Revision, Payment and Proposal Submittals, self-performed Work, and others are defined and the fact that floats are to be calculated in (calendar) days, represent but a few examples of differences worth pointing out.

Relationship of the Selected Specification to the General Conditions



There are a number of Articles in Section 00700 General Conditions which add to the requirements in Section 01310. (a) Article 5 provides procedures for the proposal of "or equal" or substitute items (Section 01310, par. 1.03.A). (b) Article 6 includes key provisions about the intent of Schedule Submittals and the review of schedules (Section 01310, par. 2.01.A). (c) Paragraph 10.7 deals with Allowances. (d) Articles 12 and 14 set forth remedies in the event the Contractor does not comply with Section 01310 (Section 01310, par. 1.07). (e) Articles 8 and 12 summarize the sequence of, and character of, the Progress Schedule, and Schedule of Values submissions (Section 01310, par. 2.02.B). (f) Article 12 establishes the scope of the Schedule of Values and how to deal with payment for stored materials. If any such provisions are amended, it may be necessary for the **Specifier** to amend or supplement Section 01310 Progress Schedule as well.

The rationale behind having the **Contractor** submit Progress Schedules is set forth in paragraph 6.3.2 of Section 00700 General Conditions. It relates to: (a) informing the **State** of the **Contractor's** game plan, (b) providing an as-built record of starts and sequences, and (c) having a consensus document that will be used by the parties when measuring the effect of any Delays, however caused, on the Progress Schedule.

Intent of Progress Schedule Reviews



It is important to establish that the intent of having the **Professional** and/or **Owner** review the Progress Schedule is not to "QC" the **Contractor's** schedule. For instance, paragraph 6.4.2 of the General Conditions does not state that any such review may result in comments relating to whether the Progress Schedule conforms to the Contract Documents or not. In fact, paragraph 6.4.3, also in Section 00700 General Conditions, indicates that no review comments shall be construed to impose any responsibility on the **State** or **Professional** for the scheduling of the Work.

The key objective of the reviews is articulated in paragraph 6.4.1 and it relates to reaching consensus on the Progress Schedule: To determine whether the Progress Schedule is consistent with any other requirements of the Contract Documents that may have a *significant* bearing on the use of the Progress Schedule to resolve issues affecting Contract Price or Contract Time. This provision recognizes that one important function of the Progress Schedule is to provide information upon which to base determinations of entitlement for adjustments in Contract Price and Contract Time when delays, acceleration or resequencing in general affect the cost of all or parts of the Work.

Experience shows that, at times, it is quite difficult to achieve full agreement on all aspects of the Progress Schedule. Instead, eventually, the **State** and **Contractor** may agree on most issues, except for those noted. When a delay or changes in the Work have to be evaluated, it is conceivable that the **State** and **Contractor** will calculate different outcomes, and those will have to be reconciled or settled through negotiation.

Cost-Loading Provisions



There are four corners to MICHSPEC™ CPM cost-loading provisions, and are described as follows. (a) Progress Payments shall be made using a traditional Schedule of Values (SOV) that divides the Contract Price into (broad) pay items, and is supported by a more detailed, Activity-based schedule of values (in Section 01310 called the Schedule of Activity Values). The detailed schedule of values further subdivides the pay items into Activity costs (also called Activity Values). (b) The Schedule of Activity Values is not due for submission until the second Request for Payment, which means that, until then, Progress Payment shall be made using the Schedule of Values only. (c) To ensure consistent Schedule Of Values pay item and Activity cost-loading, the value for an Activity can be rolled up in its entirety to only one SOV pay item, and this requires the use of special *pay* Activities and/or the resource/cost loading features of the selected Progress Schedule software (if any are made available). (d) Percent complete and earned payment for SOV pay items will be calculated simply by adding up the weighted percent completes and Earned Values of their related Activities.



The use of cost-loaded CPMs in firm-price contracts is not universal, and offers both advantages and disadvantages. Section 01310 Progress Schedule has been written to realize the following advantages of cost-loaded CPMs: (i) if forecasting rate of payments to the **Contractor** is important, a cost-loaded CPM inherently adjusts that forecast as the Activities and logic ties themselves are adjusted, (ii) as long as the CPM is a vital cog in the payment process, there is an added incentive for the **Contractor** to keep the schedule current, (iii) Activity cost is key data, if an objective verification of whether significant Activities are unreasonably unbalanced is important, and (iv) insofar as making payments for Work completed, calculating percent complete and Earned Value at the Activities level is a more objective method than working with the broader pay items.

On the other hand, Section 01310 has also been written to eliminate or reduce the following complaints about cost-loaded CPMs: (i) It leads to more Activities and details and complicates the schedule maintenance function – Section 01310 permits Activities to combine self-performed Work and Subcontractor Work and allows payments to be made for partly completed Activities (as opposed to making payments only on 100% completed Activities); (ii) It may take several months to firm-up the schedule and the Activity costs,

and payments can't wait for all that - Section 01310 allows payments for the first two to three months to be made off the Schedule of Values and the Schedule of Activity Values is not due until the second Payment Request; (iii) as long as Activities are cost-loaded, any revision in Activities may require re-estimation of Activity costs - Section 01310 does not specify how to do so, however, prorated redistributions of Activity costs by simply comparing the scope of Activities, before and after the revisions, is not ruled out.

All this notwithstanding, the State Model does include alternate Progress Schedule Specifications which do not call for cost-loading the CPM schedule. The **Specifier** ought to discuss with **State** representatives the proper use of all these Sections when preparing a set of Bidding Documents.

Redefinition of what Constitutes the Critical Path



Traditional definitions of total float (i.e., number of days that an activity may be delayed without delaying completion) and critical path (i.e., sequence of activities of zero total float) are not all that useful in firm-price, construction contracts. Total Float instead is defined in Section 00020 Glossary as: (a) Days that a CPM Activity may be delayed from its Early Dates without *necessarily* causing an overrun of a pertinent Contract Time. Critical path is also defined in Section 00020 Glossary as "...a sequence of Activities controlling achievement of a specified Contract Time...". This second definition of what is critical applies even to a Bar Chart Schedule!

For cost-loaded CPM schedules, *pay* Activities shall not have a role in determining criticality. This is so because, in principle, a *pay* Activity is supposed to capture scope of Work already included, at no cost, in other related CPM Activities. *Pay* Activities have no function other than to capture costs that are best not included in the CPM Activities. General Conditions costs, or costs of Subcontractor Work that are minor when compared to other costs include in an Activity (e.g. embedments installed by a Subcontractor, or Subcontractor rebar costs within a concrete Activity, etc.) are but a few examples of cost-loading issues which may justify using *pay* Activities.

Substitutions, Allowances and Contingent Unit Price Work



Based on paragraph 1.03.A, Progress Schedule Rev. 0 Progress Schedule Submittals shall exclude substitutions. This requirement is imposed to ensure a Rev. 0 Progress Schedule Schedule Submittal reflecting the Work as-awarded and no holds or delays in the completion and delivery of the Rev. 0 Submittal on account of substitutions.

Under paragraph 1.03.B, Allowances and contingent Unit Price Work, if within the amounts and quantities stipulated, respectively, are to be completed within the Contract Times. This is an important provision and one that should be taken into account by the **Specifier** when establishing Contract Times. On the other hand, the enforceability of this provision is doubtful if the amount of Provisionary Allowance Work is significant and/or it is ordered out of the normal sequencing of the Work.

Delay Provisions; Targets



The CPM Short Form Specification includes a number of unique delay provisions. First, paragraph 1.04.B.2 requires the **Contractor** to support requests for increases in Contract Time, and Contract Price, by using the Progress Schedule and delivering electronic data sufficient to allow the **Owner** or **Professional** to verify the **Contractor's** calculations using the **Contractor's** own files. (According to paragraph 3.02.A, the **State** has access to the same software used by the Contractor).

Second, once the *As-Planned* Schedule is established, the **Owner** is allowed to select the start or finish of key Activities as "Targets" and to set the Late Dates of those key Activities as *Target Times*. Target Times thus recognize the **Contractor's** own approach to Means and Methods and Work sequencing and represent interim (non-binding) deadlines established by the **Contractor**. As progress unfolds, anticipated and actual dates can be compared with Target Times and slippage by phase, if any, can be evaluated and assigned cause.

Thirdly, if a dispute as to the configuration of Progress Schedule Revisions arises during the course of the Contract, paragraph 1.04.C specifies (and paragraph 3.05.D confirms) that the valid schedule to be used to measure delay shall be the *As-Planned* Schedule updated retrospectively and not the disputed Revision Schedules. This means that for the purpose of resolving issues affecting Contract Time, the **Owner's** consent to any Revision Schedule is in fact conditioned upon reaching consensus on all Revision Submittals. Moreover, the retrospective updating using the *As-Planned* Schedule could conceivably yield quite a different outcome from the Revision Submittals.

This is due to the condition that no **Contractor**-initiated revision shall be made during the updating of the *As-Planned* Schedule, except in the update for the period when the Work affected by the revisions was actually performed.

On the other hand, even if a major impasse arises in the process of revising the Progress Schedule, meaning that the **Professional** is unable to return a Revision Submittals as "Resubmittal Not Required", the **Contractor** is nonetheless obligated to continue to submit *disputed* Progress Schedules (Revision and Payment Submittals). This procedure allows communication concerning the Progress Schedule still to take place, albeit, at a disagreement. Further, it provides a contemporaneous **Contractor** record of actual dates and sequencing (refer to paragraph 3.05.B.2). The alternative, where the **Contractor** no longer submits any schedules since the **Professional** is bound to disagree with them, is unacceptable as it keeps everyone in the dark and rules out any schedule management by the **State**.



Under paragraph 1.04.B, overruns in a Target Time or Contract Time exceeding ten (10) Days require a schedule recovery plan. This threshold is raised to twenty (20) Days in paragraph 3.01. For projects longer than three years, a twenty-Day (20) limit may be more appropriate.

Level of Detail

Section 01310 discourages both excessively detailed and overly summary CPM schedules. Detailed schedules are discouraged in that they tend to become obsolete three to six months after the details are developed, and promote inflexibility (as opposed to flexibility) when responding to changes.

Detailed schedules are best left for the monthly *Short Term Schedule* submittals (in the form of Bar Charts and covering the next month's Work).

Scope of Progress Schedule Activities

Paragraph 1.01.C provides a comprehensive itemization of Progress Schedule CPM Activities *fitting typical projects*. This list may require supplementing for an unusual contract involving out-of-the-norm Activities. Examples may be design or agency approval (zoning, etc.); Activities in design-build contracts or development projects; contracts that include procurement and installation of **State** furnitures and fixtures; contracts including trial operation by the **Contractor**; and so forth.

Interim Progress Schedule Submittal

Section 01310 gives the **Contractor** the option to deliver, within ten (10) days after receipt of the Notice to Proceed, either an Interim Schedule or the complete Rev. 0 Progress Schedule Submittal. Regardless of which approach is taken, the complete Rev. 0 Schedule of Values (SOV) shall also be due within ten (10) days after receipt of the Notice to Proceed. If the **Contractor** opts for by-passing the Interim Submittal, caution must be exercised to secure a concurrent commitment that the complete Rev. 0 Submittal will not be delayed. Late Rev. 0 Submittals are not a desirable outcome at all.

Progress Schedule Revision Submittals

Section 01310 assumes that the **Professional** and **Contractor** will negotiate and reach consensus on the configuration of the Progress Schedule on a bi-monthly basis. This procedure has advantages and disadvantages. On the positive side, it requires that revisions to the *As-Planned* Schedule be consented to by the **Professional** – absent such consent, the *As-Planned* Schedule is the only consensus schedule. On the other hand, it affords the **Contractor** the opportunity to bias the schedule as more knowledge is gained, therefore the **Professional** will be required to exercise due care in reviewing each Proposal Submittal to see that Activity and logic tie changes are not unreasonably biased.

REFERENCES

- [1] PMA Consultants LLC, *Contract Forms and Conditions of the Contract*, FORMSPEC™ Michigan Model, Ann Arbor, MI, (1986 – 1997)
- [2] The Construction Specification Institute (CSI), *MASTERFORMAT*, Alexandria, VA, 1988 Edition
- [3] The Construction Specification Institute (CSI), *MasterFormat™*, Alexandria, VA, 1995 Edition
- [4] EJCDC, *Standard General Conditions of the Construction Contract*, EJCDC Document No. 1910-8, 1990 Edition, Alexandria, VA, (1990)
- [5] See Reference 4
- [6] AIA, *General Conditions of the Contract for Construction*, AIA Document A201, Washington, DC, (1997)
- [7] See Reference 4

END OF GUIDE TO SPECIFIERS

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