ADDENDUM II

SUBJECT: Invitation for Bids (IFB) #00163, Construction of Brooks Hike and Bike Trail Connection
Scheduled to Open: March 20, 2020 at 11:00 AM C.S.T.

FROM: Karen Smith, Purchasing Officer
ksmith@sara-tx.org

DATE: March 6, 2020

This notice shall serve as Addendum No. 2 - to the above referenced SOLICITATION

THE ABOVE-MENTIONED SOLICITATION IS HEREBY AMENDED AS FOLLOWS:

1. UPDATED: Questions and Answers from pre-solicitation meeting and submitted via email.
2. UPDATED: Exhibit 1 Pricing Sheet
4. ADDED: Photos – related to Question 66 (Attachment 1)
5. UPDATED: Exhibit 4 Plan Sheets S1 & S2 – (Attachment 2) updated per Question 65

On February 14, 2020 the San Antonio River Authority (River Authority) hosted a Pre-Submittal conference to provide information and clarification for the solicitation. Below is a list of questions that were asked at the pre-submittal conference and to those submitted via email before the question submittal deadline. The River Authority’s official response to questions asked is as follows:

1. Is it possible for the River Authority to provide us with a plan file that has the same resolution for every plan sheet? There is currently a mix of 24x36 and 11x17 size plan sheets within the pdf file. The different size plan sheets are messing with the scale and creating havoc in our estimating software. I don’t want to change the plan sheet sizes and screw up the scale even further.

Yes, the file is 35 MB, so please visit our website for updated plans issued with the is addendum at https://www.sara-tx.org/transparency/contracting-opportunities/00163-construction-brooks-hike-bike-trail-connection

Please note: This package has the original published S1 and S2, which have been updated per this Addendum as Attachment 2.
2. **In addition to the original hard copy, how many copies of the bid package are required?**

   Only the original hard copy and an electronic copy are required. (Part 1, Section 12, Page 10)

3. **For the phasing of the overall – can we start in multiple places? If so can we get substantial completion?**

   It may be possible to work in more than one place on the project however SARA standards require that not more than 500 l.f. of open construction allowed at any time. Contractor shall operate within the smallest footprint possible to reduce the amount of disturbed soils and vegetation.

   Substantial completion will be incumbent upon usage of trail. For partial substantial completion to be considered, the trail portion in question will need to be ready for occupancy with all elements of the work completed for that section. Consideration will be given for areas completed but must be approved by owners prior to partial substantial completion being granted.

4. **Is this a unit price job?**

   This project is lump sum. Unit pricing is intended to add up to the total bid amount. It is also intended to be listed in the event that scope of work items need to be added or deducted. The unit pricing sheet can also be used as a guide for schedule of values basis of payment.

5. **Is this a unit price job or lump sum?**

   Lump sum. See item #4 above.

6. **If the project is a lump sum bid, please confirm the unit price form is used for a sov basis of payment and / or for adds and deducts.**

   See item #4 above.

7. **If this is a Lump sum project, please clarify if the unit price sheet is required to add up to our bid amount**

   See item #4 above.
8. Was there an engineer’s estimate? Does engineer estimate include alternates?

Yes, as stated in Part 1, Section 3, the engineers’ estimate is $1.4 million (page 6). Yes, the engineers estimate includes the alternates #1 and #2.

9. Is materials testing required?

Yes

10. Is contractor required to provide any testing?

Contractor is required to hire a third party testing agency and coordinate and pay for all necessary materials testing on the project.

11. Please confirm who is to provide testing for the project. Numerous specifications indicate that the owner will provide testing and in the pre-bid meeting it was indicated that the contractor is to provide all testing.

See item #10 above.


The geotechnical report will be issued to the successful contractor after award.

13. Do you know what permits will be required?

General construction permit for this project will be required. TxDOT permit shall also be required. See plan sheet C3 of 18 general notes.

14. Will contractor be required to pay for permits?

The COSA general construction permit is paid by the River Authority as a pass-through price. If at time of construction start, the COSA general construction permit has not been paid, then contractor can pay and the River Authority will reimburse. Contractor is responsible for all other permits.

TxDOT permit is paid for by contractor. TxDOT is evaluating whether a permit previously issued can be renewed or whether this project will require a new permit submittal. For bidding purposes, contractor to include permit cost for TxDOT. If TxDOT grants use of the existing permit, the cost of the TxDOT permit will be deducted from the total lump sum cost.

Contractor will also be required to follow section 1576 on utilities permits.
So put zero dollars in bid? See #14 above.

15. Is contractor required to pay for any permits?

See #14 above.

16. Our understanding is that all permits are paid by the River Authority. Should bid item #8 be deleted or allowance amount provided?

See #14 above.

17. Can we get access to project site?

On-site visit was March 2, 2020 at 9 am. Issued under addendum #1.

18. Is Presa TXDOT right of way?

Yes

19. Any indication how closure would be phased from TXDOT for addition of two culverts?

Contractor will be required to coordinate with the City of San Antonio (if necessary) and TxDOT for lane closures, barricading, etc.

20. Could you explain traffic control requirements at Presa St. culvert crossing?

See #19 above.

21. Have you alerted the Texas Department of Transportation (TXDOT)? If yes, did they have comments?

Yes, TXDOT has been contacted. See #14 above.

22. Will there be separate line item for traffic control while working in TXDOT right of way?

No separate line item for traffic control while working in TxDOT R.O.W.

23. Will TXDOT require barrier and if so will they be source for barrier?

Contractor will be required to follow TxDOT standards while working within S. Presa R.O.W. and will be responsible to coordinate with TxDOT for barrier information.
24. That shows concrete traffic barricade.

See item #23 above.

25. Will TxDOT provide concrete barrier to the awarded contractor if necessary, for our traffic control detour at Presa Street for the box culvert installation?

See item #23 above.

26. Can you add pictures in addendum?

Yes. Please see Attachment 1

27. Would you consider bid item for flag men for UPPR? Will there be a bid allowance for that item?

No separate bid item will be given for UPRR flagmen. Contractor will be expected to contact railroad for coordination of this item. See #29 and #31 below.

28. Would the River Authority consider adding a bid item or allowance for the $1500 per day flagman required at the railroad crossing?

River Authority will not consider adding bid item or an allowance for flagmen. The UPRR flagmen cost can be obtained by contacting the UPRR point of contact located in #31 below.

29. Do you have info in specifications on who to contact for UPPR flag men?

See information below regarding flagmen (excerpt from UPRR C&M agreement)

The rate of pay per hour for each flagman will be the prevailing hourly rate in effect for an eight-hour day for the class of flagmen used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and unemployment compensation, supplemental pension, Employees Liability and Property Damage and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect at the time the work is performed. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays, and two and one half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between Railroad and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges on labor are also subject to change.
30. Will you release UPPR anticipated cost?

See item #28 above.

31. Do we have an executed right of entry with Union Pacific Railroad (UPPR)? If yes, can it be released?

SARA has a fully executed Construction & Maintenance agreement with UPRR. The agreement will be issued to the successful contractor after award. Contact information for the UPRR is:
Railroad Flagging Services – 210-200-3621.

32. Please distribute the executed agreement between UPPR & the River Authority.

See #31 above.

33. Will we have to have railroad protected insurance for that?

Yes. Contractor is responsible to provide UPRR with proof of insurance for working in the UPRR R.O.W. prior to construction.

34. On other pictures as far as railroad, have you given a finished ceiling height?

Sheet C5 of 18 identifies clearance beneath the bridge as 7.25’.

35. Will the project require the contractor to perform de-watering prior to construction?

SARA crews have been working to correct the Acequia leak. SARA crews will be on site prior to construction to dewater the areas as a result of the Acequia leak in preparation for the construction. Contractor will need to follow specification 2150 to maintain dewatering after the initial Acequia work is corrected. Potential dewatering may also need to be performed by the contractor downstream of the Acequia, depending on recent rain events.

36. No additional coordination efforts will need to be done for dewatering?

See #35 above.

37. Have you accounted for de-mucking?

Yes
38. **Is this property – who is the owner? Is any National Park Service (NPS)?**

   National Park Service (NPS) owns property outside SARA property. NPS has been involved in past discussions regarding the Acequia, but has indicated they have limited resources for assistance. NPS will not be involved on this project. Contractor will not be required to contact NPS for this project.

39. **Will rip rap jump on other side of road?**

   There will be embankment modifications on all 4 sides of box culvert.

40. **Will that have retention blankets below rip rap?**

   Yes.

41. **On one portion of dewatered area, will contractor carry burden for this during rain event?**

   If there are any events, contractor will need to ensure that their equipment is out of flood plain. Contractor will be responsible to restore the project areas affected by flooding during construction. See specification 2150.

42. **CO8 civil details – it lists a group of standard detail sheets – it looks like traffic control plan. It appears that it is being built half at a time with cast in place box culvert.**

   TCP is located on Sheets C10 and C11. TCP on Sheet C10 indicates two separate lane closures to build each half of the box.

43. **Who owns property on other side of fence?**

   That is TxDOT right of way.

44. **On portion of 8x9 culvert, that will cause redesign of railing system. Will engineer provide kips for bolt down that is require and will they give us design of guardrail and manufacturer of rail?**

   Contractor shall follow TxDOT specifications and must use TxDOT approved manufacturers.

45. **TxDOT 247 spec is 8 kips per bolt.**

   See Item #46 below.
46. **Will they provide us backup data on bolt and who holds the liability on installation of that if there is a failure? Even if pull test is done?**

Ultimately the Installer is responsible for any defective installation.

47. **Is contractor required to install construction fence around the job site?**
   
   Contractor is responsible to follow specification 1610 and sheet C3 of 18.

48. **Are there any special considerations that need to be taken when working around the acequia?**
   
   See item #35 above.

49. **Is the shade structure provided by others?**

Shade structure material was provided under a separate contract and is in the possession of Brooks. Under alternate #1 if accepted, the contractor will be required to install the structure. Photos of the canopy are attached.

50. **Please explain what is to be included in bid items 6 “Utilities”**

Contractor is requested to provide a lump sum amount for the utilities related to mobilization to include trailer utilities.

51. **Bid item number 45 is in cubic yards – is it monolithic? Cast in place or pre-cast?**

   Plan sheet C06 specifies cast in place box culvert.

52. **Please clarify what bid item 70 “Crane Rental 1 week” includes.**

   Contractor shall be responsible to pay for crane rental for all items that require a crane. The item 70 “crane rental 1 week” is listed for contractor to provide cost for 1 week crane rental for unit pricing purposes.

53. **Crane rental one week – can you explain that item?**

   See item #52 above.

54. **Are these items irrelevant if we have an add or deduct?**

   See item #4 above.

55. **It doesn’t mean that it will be granted, just looked at?**

   See item #4 above.
56. Please clarify what bid items 21, 22, 23 and 25 are for and what they include.

Items 21, 22, 23, 25 are related to the trail construction.

57. Please clarify what is included in bid item 39 “flex Pavement Structure Repair”

Item #39 Flex pavement repair is related to the reconstruction of pavement near the box culvert area on S. Presa.

58. Please clarify what bid item 49 “flex pavement repair – Culvert “ includes

Item #49 is a duplication of item #39 and will be removed from the unit pricing sheet.

59. Should bid item 88 read 4000psi?

Yes should read 4000 psi.

60. Methods of Payment – during the pre-bid meeting the River Authority stated that the project would be paid on a lump sum basis, yet Part I “Requirements for Responses” Sections 8 & 10 of the IFB Main Solicitation document seem to indicate differently. The last sentence of section 8 PRICING states “Where unit pricing, extended pricing and/or total pricing differ, unit pricing prevails.” The last sentence of Section 10 QUANTITIES states that “Payment to the awarded contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the Contract, based upon the contracted unit price(s).” Please confirm if the project will be paid for by a lump sum contract amount or will be paid for by unit prices for the actual amount of work installed.

Contractor shall submit a lump sum bid. The contract with SARA will be for the total amount of the contract. The unit pricing is intended to establish pricing for elements of work or materials. Also see #4 above.

61. Please confirm if the contractor may use River Authority property at no cost for a lay down yard for use during construction.

SARA will make every attempt to allow contractor to utilize SARA property for staging. Typically, a right of entry agreement will be required to be signed with the contractor. If no SARA property is available for staging, contractor needs to secure a site near the project for staging and will be expected to execute a contract with the property owner for use of that site for the duration of the project.

62. Does the River Authority have a coatings spec that is to be used for the canopies?

A coatings specification was not provided by the canopy designer. If this alternate is accepted by the owner, the contractor shall inspect the canopy after award and submit a
request for information on the required finish of the canopy. For bidding, the contractor shall include a $20,000 allowance to re-surface this item. This item will be added to the unit pricing sheet.

63. During the pre-bid meeting, the River Authority stated that they would do an initial dewatering of the site at the railroad bridge. Please confirm if the River Authority crews will maintain that dewatering system during construction should a flood event occur or water seepage into the site continues.

See item #35 above.

64. Underground utilities are shown on the east side of the culverts. Please confirm that the utilities are out of conflict with the finished work. If they are not, who’s responsibility is it to relocate the lines?

Contractor shall be responsible to assure all utilities within the construction zone are located prior to construction. The River Authority assumes no liability for utility confirmation as utilities shown on plans are approximate. Depending on the utility located, the owner of the utility is usually responsible to relocate the line.

65. Is permanent casing in the drilled shafts going to be required by UPRR for the shafts within the “zone of influence” of the railroad bridge?

Yes. Permanent casing will be required for shafts within the influence of track surcharge (zone of influence). Refer to note number 10 on Sheet S3 of 8. Please see updated sheets S1 & S2 in Attachment 2.

66. Please provide pictures of the existing owner provided sunshade canopy for the alternate bid item. Will the contractor be responsible for repairing the coatings of the canopy prior to moving it from its current location? Please confirm the location of the owner provided canopy.

Photos of the structure are attached. Canopy is in possession of the Brooks Development Authority. See item #62 above.

67. Per sheet S1 general notes, all structural steel is to be hot dipped galvanized after fabrication. Please confirm that the bridge is supposed to be hot dipped galvanized. If the bridge is not intended to be hot dipped galvanized, please confirm if the bridge is to be weathering steel or coated.

Sheet S3 of the plans identify plan notes where the bridge is intended to be Wheeler bridge or Equal. Shop drawing submitted to Freese & Nichols in 10/2017 indicated bridge was to be weathering steel (ASTM A847 and A588).
68. Please confirm if the box culverts may be precast and will be per TxDOT standard specification Item 462. If not please provide a cast in place design for the new boxes.

See item #51 above.

69. Please provide a detail how the new culverts will tie into the existing.

There is no connection between the existing culverts and the new.

It will most likely be necessary to install flowable fill or cement treated sand between the new and existing structures.

Cement treated sand would be acceptable backfill between the culverts.

Please also detail how the face (upstream and downstream) of the culverts are to be completed.

Face of Headwall as per TxDOT detail.

Please also denote which bid items will be used to pay for the above.

Included as item #47.

70. Please provide a detail for how the new metal beam guard fence is to be installed on top of the new and existing box culverts.

The Contractor must match existing conditions and install the required guard beam per TxDOT details and regulations.

71. Is the contractor responsible for the design of the block retaining walls? Will engineered drawings be required for the construction of these walls?

Trail retaining walls are cast in place concrete. See details sheets C10, C11.

72. Please confirm the plans have been reviewed by the City of San Antonio. Please confirm that the River Authority will cover the cost of all permits for the project and confirm how the River Authority will pay the contractor for all permits.

Permit review is on-going at COSA. See items #14 and #15 above related to permits.

73. Please confirm when the date of the warranty bond starts. Is this the date of substantial completion when the owner and general public start using the trail or the date of final completion?

Warranty bond (Maintenance Bond) can commence at the point of substantial completion.
74. Specification section “01740 Guarantees and Warranties” subitem D states that the “Contractor shall perform all roads and entrance reconstruction required and perform repairs and maintenance of same for a period of one (1) year from the date of such reconstruction”. Is this intended to mean that the contractor needs to maintain the roadway and area for one year after substantial completion? Is the contractor going to be required to repair areas that are damaged by flooding after substantial completion?

See item #41. The intention of the project warranty is to have the contractor warrant the workmanship and materials for the specified period. Once substantial completion has been established, the warranty period can commence. If trails, roadways or materials are damaged as a result of a flooding event, this does not normally fall into a workmanship failure, therefore the contractor cannot be held liable for damages caused by flooding after substantial completion has been granted.

75. Please confirm the units for bid item #45 for box culvert. If this is precast, this should be in LF. If this is Cast in place, then it would be CY of concrete.

See item #51 above.

76. Does the River Authority need an office on site for the project?

The River Authority will require a project trailer site for this project.

77. PART II – TERMS AND CONDITIONS section 2 Warranties states that the “Responder shall warrant that any equipment furnished or work performed shall be free from defects in design, materials, workmanship...” and later “Responder agrees, upon notice from the River, to make good all defects in design...”. In two (2) places in this section it states that the respondent is responsible to warranty the design of the project. Is the contractor responsible to warranty the design of the project or is this an error?

The intent of the wording mentioned above is that the contractor shall warrant that the contractor furnished equipment and the work performed to be free from defects in design, materials, workmanship...stating that the design being referenced is for supplied contractor items.

78. Item 13 – Scope is not delineated. Please provide scope limits and details.

Scope of work is outlined in the plans. Culvert rip rap is being modified due to the addition of 2 box culverts.

79. Item 37 – Preliminary takeoff indicates a quantity significantly less than 900 CY. Please advise.

Use 205 S.Y.
80. Item 74 – Are all trees within the fenced in work areas to be protected? Preliminary takeoff indicates a quantity significantly more than 25 each. Please advise.

Trees identified to be preserved on sheet C2 shall be protected.

81. Item 87 – Scope is not delineated. Please provide scope limits and details.

Item #87 is for the alternate #1 trail section from the main trail to the canopy pad.

82. Item 89 – Scope is not delineated. Please provide scope limits and details.

Item #89 is duplicated and will be removed from Unit pricing sheet.

83. Item 90 – The limits of embankment are not detailed beyond Sheet C3 of 18. Please provide plan, profile and section.

Limits of grading are indicated in sheet C2.

84. Sheets C10 and C11 do not show base beneath the concrete trail. Is base required? Please advise.

Soil beneath the trail concrete flatwork is to be compacted as required. If during construction, the contractor identifies areas where compaction is problematic or unattainable, the contractor shall contact the River Authority and the geotechnical engineer for backfill recommendations to resolve the issue.

85. Sheet S8 of 8 shows bullrock at the termination of the concrete rip-rap. Is the cost of the bullrock to be ancillary to the concrete rip-rap bid item? Please advise.

Yes.

86. Is the new trail supposed to sit on just prepped subgrade? There is no detail for select fill under the trail or retaining wall sections.

See item #84 above.

87. Will there be any information available concerning UPRR, trains per day, speed, possible cargo, that will be useful for Rail-Road Insurance Policy acquisition?

Number of current regular trains is 6. Switching movements is 2. Maximum speed is 30 mph. Cargo information is not available at this time.

88. Please describe Bid Items 84 and 85 (Additive Alternate #1). They don’t seem to show in the Additive Alt. area.
Items 83, 84, 85, 90 placed into Acequia bridge structure category on unit price list.

89. Sheet C-3 notes ADA Accessible Picnic Table, trash can set and interpretive signage in the Shade Structure Area with no corresponding Add. Alt. bid items. Please explain.

Picnic table is already in possession of Brooks DA. Trash can set and interpretive signage are now listed with add alt. 1 unit pricing category.

90. Are any traffic lanes expected to be open during the asphalt road demolition and install of the new culverts or is it anticipated to close the whole road?

It is expected that traffic remain open at all times, please reference the TCP on Sheet C10 and C11.

If we keep some lanes open does that create a possible hazard for adverse weather and potential caving?

Contractor shall use means and methods to ensure safety measures are in place at all times during construction and shall assume responsibility for project integrity for prevention of caving. Also see Item #90 above.

Will the engineer allow the culverts to be separated by a joint in order to keep lanes operational?

That would be acceptable.

91. Please address the pipeline west of the railroad bridge?

The pipeline is being evaluated for ownership and content. Contractor is requested to bid project as designed on the plans.

92. Is there an engineer’s estimate or budget for this project?

See Item #8 above.

93. Are certified payrolls required on this project?

Payroll reporting shall conform to main solicitation and contractual document requirements.

94. Are Bidders required to be TXDOT Pre Certified?

No.

Please acknowledge addendum on Attachment G of the solicitation document when submitting a response.
GENERAL STRUCTURAL NOTES:

GENERAL REQUIREMENTS:

1. All drawings, specifications, and calculations contained herein are intended to augment the drawings and specifications. Shaded conflicts exist between the drawings, specifications and the structural engineer’s notes. All such conflicts shall be resolved by the structural engineer.

2. Follow all applicable safety codes and regulations during all phases of construction.

3. All loads and reactions on drawings and in these general structural notes are unfactored service loads unless otherwise noted. Load cases when indicated concrete loads shall be calculated in accordance with the municipal code of San Antonio.

4. In general, all sections and details shown on the plans are intended to apply to similar conditions unless specifically noted otherwise.

5. Refer to other disciplines for embedded items not shown therein and to verify size and location of all openings.

CONCRETE REINFORCING:

1. Reinforcing steel shall be deformed domestic new billet steel bars in accordance with A516 specification grade 60 or 70. Live loaded steel shall not be used. Steel bars shall not be used for supports. Live loads shall not be applied to supports.

2. Detailing and fabricating of reinforcing steel and supports shall conform to ACI detailing manual. A315 (SP 66) and ACI 319-13.

3. All hooks and bends in reinforcing bars shall conform to ACI detailing standards unless shown otherwise.

4. Provide reinforcing bars in accordance with the bar bending diagram. Bar types are specified in slab detail reinforcing as follows:

   - Provide standard hooks in top bars at cantilever and discontinuous ends of slabs and slabs.

5. Riprap bottom steel shall be chaired at 5½’ maximum centers using beam bolts. Provide a maximum of 2 beam bolts per bottom cover to reinforce steel. Beam bolts used shall be intended for support in soil.

6. The welding of reinforcing steel shall be permitted.

7. Heat shall not be used in the fabrication or installation of reinforcement.

8. Reinforcing steel clear cover shall be as follows. Cover in member not shown below shall conform to the requirements of A318 section 7.7 unless noted otherwise on drawings:

   - Drilled shafts: 2”
   - Pile caps: 3”

9. Contractor shall make allowance to provide and install 1½ ton of additional reinforcing steel to range from 1½ to 2½ to be used in the field as directed by the engineer of record. Any unused portion of the quantity shall be credited to the owner at the rate of $2,000.00 per ton. Labor for placing reinforcing steel shall be intended for support in soil.

10. Punch, sub-punch and ream or drill all bolt holes. Do not use a cutting torch to enlarge bolt hole sizes in base plates shall be oversized by 5/16 inches larger than anchor bolt size.

CONCRETE FORMWORK:

1. The design, construction, and safety of all formwork shall be the responsibility of the contractor. Additional reinforcing, brackets, and other temporary supports shall be engineered to support all loads imposed. Responsibility for checking the work to ensure compliance with these requirements lies with the contractor.

2. Drilled and poured boreholes shall be filled with wet compacted concrete or similar material. All cavities shall be backfilled to grade.

3. All anchors embedded in concrete shall be proportioned to exceed the strength of the embedded material. All anchors shall be in compliance with ACI 319 chapter 17. Expansion anchors shall not be used in concrete. Other anchors will see tensile loads. Powder anchor strands shall not be used in concrete.
1. THE FOUNDATION PIER DESIGN IS BASED ON THE GEOTECHNICAL ENGINEERING STUDY PREPARED BY ARIAS.

2. ALL PIER EXCAVATIONS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER OF RECORD PRIOR TO PLACING CONCRETE.

3. PROVIDE INSPECTING ENGINEER WITH AN ELECTRIC LIGHT AND PLUMB-BOB TO OBSERVE ALL PIER EXCAVATIONS.

4. ALL FOOTING EXCAVATIONS SHALL BE FREE OF WATER PRIOR TO PLACING CONCRETE.

5. ALL WELDS SHALL BE VISUALLY INSPECTED.

6. PROVIDE STEEL CASING, AS REQUIRED, TO PREVENT EXCAVATION SLOUGHING AND/OR SUB-SURFACE WATER SEEPAGE. STEEL CASING MAY BE REMOVED DURING CONCRETE PLACEMENT SEQUENCE PROVIDING THERE IS ENOUGH CONCRETE HEAD TO PREVENT SLOUGHING SOIL FROM PENETRATING INTO THE PIER ARE.

7. ANY CONSTRUCTION JOINT IN THE FOOTING SHOFT MUST OCCUR AT LEAST 6 INCHES ABOVE GRADE ELEVATION.

8. CONCRETE PLACEMENT SHALL BE MADE WITH A TRENCH WITH AT LEAST 6 FOOT HOSE OR METAL SHOFT.

9. VERTICAL PIER REINFORCEMENT SHALL EXTEND TO WITHIN 3 INCHES OF THE FINISH FLOOR ELEVATION. FORMING FOR THE CONCRETE PIER EXTENSION ABOVE GRADE SHALL BE FORMED WITH SOUTHEAST OF THE SAME DIAMETER AS THE PIER SHAFT.

10. FABRICATION PANELS TO COMPLY WITH "SDI SPECIFICATIONS AND COMMENTARY FOR STEEL ROOF DECK."

11. METAL ROOF DECK SHALL BE FURNISHED WITH A MINIMUM TWO SPAN CONDITION, UNLESS NOTED OR DETAILED OTHERWISE. ALL METAL ROOF DECK SHALL BE GALVANIZED WITH A G-60 COATING. ROOF DECK SIZE IS NOTED ON THE PLANS AND SHALL CONFORM TO THE FOLLOWING MINIMUM SECTION PROPERTIES:

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   NOTE:

12. USE THIS TABLE FOR BAR SPLICE UNLESS SPECIFICALLY DETAILED AND DIMENSIONED ON PLANS.

13. THIS SCHEDULE IS NOT APPLICABLE TO SPLICING MOMENT FRAME MEMBERS RESISTING SEISMIC FORCING.

14. ALL SPLICES SHALL BE CLASS "B" UNLESS NOTED OTHERWISE ON PLANS.

15. BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF CONCRETE CAST BELOW BAR.

16. BENDING DETAIL IS BASED ON THE BAR SPLICE SCHEDULE. BENDING DETAIL IS NOT APPLICABLE TO SPLICING MOMENT FRAME MEMBERS RESISTING SEISMIC FORCING.

17. INSPECTION FOR PREFABRICATED CONSTRUCTION SHALL BE THE SAME AS IF THE MATERIAL USED IN THE CONSTRUCTION TOOK PLACE ON SITE. CONTINUOUS INSPECTION WILL NOT BE REQUIRED DURING PREFABRICATION IF THE APPROVED AGENCY CERTIFIES THE CONSTRUCTION AND FURNISHES EVIDENCE OF COMPLIANCE.

18. INSPECTION FOR PREFABRICATED CONSTRUCTION SHALL BE PROVIDED BY THE OWNER BASED ON THE REQUIREMENTS OF THE 2018 IBC AS SUMMARIZED IN THE TABLE BELOW. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS.

19. SPECIAL INSPECTION WILL BE PROVIDED BY THE OWNER BASED ON THE REQUIREMENTS OF THE 2018 IBC AS SUMMARIZED IN THE TABLE BELOW. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS.

20. THE SPECIAL INSPECTOR IS ON SITE AT TIME INTERVALS NECESSARY TO CONFIRM THAT ALL WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS AND THE SPECIFIC GENERAL NOTES SECTIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL COMPONENTS."