

METRA DIVISION OF STATIONS & PARKING DESIGN

**STATION ENGINEERING BLANKET
REQUEST FOR SPECIFIC SERVICES**

ENGINEERING DESIGN

DATE:

CONSULTANT:

CONTRACT NO:

CONTRACT EXPIRATION DATE:

PROJECT DESCRIPTION:

METRA PROJECT NO.:

METRA PROJECT MANAGER:

STATION:

RAIL LINE:

SITE LOCATION:

CONSTRUCTION BUDGET:

PROJECT SCHEDULE:

See Attachments for Details

Start

End

I. INTRODUCTION

Metra, the Commuter Rail Division of the Regional Transportation Authority, is funding the architectural and engineering design services to be performed in the preparation of construction contract documents (plans and specifications) for the subject project.

The consultant shall complete Cost and Price Analysis - Professional Services Contracts, 4400 Form for Metra Stations & Parking Design, including preliminary engineering schedule, DBE participation and detailed project tasks.

II. PROJECT SPECIFIC REQUIREMENTS

The project specific scope of work and associated project specific requirements is defined in the attached Exhibit "A"- Project Scope.

III. GENERAL REQUIREMENTS

Consultant's services, documentation and reports shall include the following:

- A. A mandatory meeting shall be scheduled on site, with the Metra Project Manager and the consultant to review the project requirements and site conditions prior to the consultant submitting his proposal. A Project Scope Checklist shall be completed to delineate the Project Scope Outline.
- B. The consultant shall be responsible directly to Metra's Stations & Parking Design Division and shall report to the appropriate Metra project manager in charge of the project.
- C. The items listed in the Exhibit "A"- Project Scope constitute what Metra believes to be the major project elements. It shall be the responsibility of the consultant to identify all necessary associated work whether or not it is specifically listed in the project scope description.
- D. Consultant shall obtain and pay for all necessary surveys with property utility information, and obtain and pay for all necessary sub-surface soil investigation reports. These are considered part of the consultant's services as reimbursable expenses and shall be listed under the "Other Direct Cost" of the 4400 Form.
- E. The consultant shall assemble the plat of survey, utility reports, and soil analysis. If necessary, the consultant shall then schedule a **J.U.L.I.E. or D.I.G.G.E.R.** meeting at the site to confirm the location and ownership of all underground and overhead utilities. The consultant shall schedule a meeting with a representative of the railroad to locate all unlisted railroad related utilities.
- F. All design and construction shall be in accordance with the following codes and regulations:
 - 1. Applicable County and /or Local Zoning Requirements.
 - 2. The latest edition of the Local Building Code.
 - 3. Federal, State, County and Local Health Requirements.
 - 4. Federal, State, County and Local Safety Requirements.
 - 5. Federal, State, County and Local Fire Regulations.
 - 6. Illinois Environmental Barriers Act and Illinois Accessibility Code
 - 7. The Americans with Disabilities Act(The plans shall include a statement of compliance with these documents).
- G. The checklist shall be dated signed and sealed by the Firm's Principal in charge of the project and shall be submitted to Metra upon submittal of 30%, 60%, and 90% review documents.
- H. Plan and specifications should be prepared for a LUMP SUM or UNIT COST BID including alternates as designated by the Project Manager.
- I. The following organizations will be provided with the plans and specifications: Metra Stations & Parking Design, Metra Engineering, the appropriate railroad company, and the local permitting agencies (city or village) as appropriate.
- J. The consultant shall appear at local board and/or commission meetings to obtain the necessary permits and approvals, if necessary. This activity shall be shown as a separate line item on the 4400 Form.

- K. Reproduction of sketches, studies, presentations, drawings and specifications, and project documentation required during the development of the project are considered part of the consultant's services and are reimbursable expenses and shall be listed under "Other Direct Cost" of the 4400 Form. An estimate of the number of drawings that will need to be reproduced is as follows:

SETS OF DRAWINGS

a)	Schematic Phase (30% Design Phase) Plans with 30% checklist	15
b)	Design Development Phase (60% Design Phase) Plans, specifications, checklist	15
c)	Construction Document Phase (90% Design Phase) Plans, specifications, and checklist	15
d)	Bidding Phase (100% Design Phase)	60
	TOTAL	105
	LAMINATED PUBLIC INFORMATION DISPLAY BOARDS	3 boards
	MYLAR SEPIA	1
	COMPUTER FORMAT (refer to the design and electronic guidelines or Access Metra Stations & Parking Design website at http://www.metrarr.com/techservices (CD)	3
	12x18 or half size plans	1 set
	Photos of Station & Site	1 set

- L. The consultant shall be held accountable for all errors and omissions resulting in construction change orders and shall be required to take corrective action as directed by Metra.
- M. The consultant shall review all shop drawings and make necessary drawing revisions throughout the permit process.
- N. Consultant payment request shall accompany the project/task specific payment application form. This form was attached with the notice to proceed provided by Metra to the consultant.

IV. REFERENCE GUIDELINES

All design and construction is to be in accordance with the following documents as they apply to the project specific scope of work. These documents are available on the Metra Stations & Parking Design website at <http://www.metrarr.com/techservices> and other agency sources. These documents are hereby made a part of this document:

- A. Metra Stations & Parking Design Project Management Manual
- B. Metra Station Design Guidelines and Standards
- C. Metra Station Parking Lot Design Guidelines and Standards
- D. Metra Stations & Parking Design CAD/D Guidelines Manual.
- E. Metra Standard Specifications - Platform Items.
- F. Metra Standard Specifications - Parking Lot Items.
- G. Metra Standard Specifications - ADA Items.
- H. Metra Supplementary Conditions.
- I. Bureau of Design and Environment Manual, latest Ed., Illinois Department of Transportation.
- J. Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation.
- K. Highway Standards, latest Ed, Illinois Department of Transportation.
- L. Manual of Uniform Traffic Control Devices, latest Ed, Illinois Department of Transportation.
- M. Manual of Uniform Traffic Control Devices, latest Ed., United States Department of Transportation.
- N. A Policy on Geometric Design of Highways and Streets, latest Ed., AASHTO.

V. METRA STANDARD FORMS

The following standard forms are available on the Metra Stations & Parking Design website at <http://www.metrarr.com/techservices> and are to be used by the CONSULTANT in the performance of these professional services:

- A. 4400 Form for Metra Stations & Parking Design
Cost and Price Analysis - Professional Services Contracts,
- B. Project Schedule – Example
- C. Consultant Application for Payment
- D. Contract Modification Worksheet

VI. SCHEMATIC DESIGN PHASE (30% Design Stage)

A. Concept and Site Schematic Drawings:

1. Site plan showing existing and proposed facilities.
2. Situation survey including legal description and property lines
3. The identification and location of all utilities, both above and belowground, on the site.
4. Electrical site plan, including the electrical and telephone service connection points.
5. Topographic information. The topographic detail shall extend ten (10) feet beyond site boundary and include all proposed utility connections.
6. Proposed floor plans.
7. Proposed elevations.
8. Proposed entry sign.
9. Soil Borings

B. Schematic Design Specifications

- C. Prepare and submit an estimate of Construction Costs by unit measurement
(A separate cost estimate is to be prepared for any off-site costs).

- D. Prepare and submit a preliminary Project Design Schedule.

- E. Respond to all individual items on the project scope checklist.

- F. The consultant shall submit fifteen (15) sets of the Schematic Design Phase Documents to Metra within forty-five (45) days of the notice to proceed (N.T.P.) from Metra. Consultant should direct all agencies to send review comments directly to Metra. Within two weeks after receiving all the schematic drawings, a meeting will be scheduled for the purpose of discussing the schematic documents. The consultant will be held responsible for meeting minutes and distribution to all project participants within five (5) days.

- G. Consultant shall proceed into the Design Development Phase after acceptance from Metra of the Schematic Design Phase solution.

VII. DESIGN DEVELOPMENT PHASE (60% Design Stage - plans and specs.)

- A. After the approval of the Schematic Design Phase the consultant shall proceed into the Design Development Phase. The object of this phase is to fix and illustrate the size and character of the project. All major items or project elements shall be clearly addressed in the plan set.

B. Design Development Drawings should include the following:

1. Site plans showing existing, new and relocated work, in specific detail, any station and parking facility, grading contours, stairs and ramps, location and extent of adjoining roads, walks, retaining walls, drainage plan, utilities, detailed calculations for on-site detention (if applicable), and limits of contract.
2. Floor plans, elevations and sections.
3. Plumbing and Mechanical plans showing sizes, loads and diagrams.
4. All utility service connection requirements shall be established.
5. Basic layouts of lighting systems showing lighting intensities and voltage drops.
6. A station power and lighting plan, which should include: Voice of Metra, telephone lines, computer connections, symbol list and panel schedules.
7. Lighting fixture schedules and a control circuit-wiring diagram.

C. Design Development Specifications

D. Prepare and submit a list of "suggested" Construction Alternates for consideration.

E. Update and resubmit the estimate of Construction Costs using the unit cost form
(A separate cost estimate is to be prepared for any off-site costs).

F. Update and resubmit the Project Schedule.

G. Prepare and submit three (3) Public Information Display Boards.

H. Prepare and submit Staging Plans.

I. Respond to all individual items on the 60% checklist.

J. The consultant shall submit fifteen (15) sets of the Design Development Phase Documents to Metra within sixty (60) days after approval of the Schematic Design Phase Documents. Consultant should direct all agencies to send review comments directly to Metra. Within two weeks after receiving all the Design Development Drawings, a meeting will be scheduled for the purpose of discussing the Design Development Drawings. The consultant will be held responsible for meeting minutes and distribution to all project participants within five (5) days.

K. Consultant shall proceed with the Construction Documents Phase after acceptance from Metra on the Design Development Phase solution. This approval shall include deviations, if any, from the approved program, budget and schedule.

VIII. CONSTRUCTION DOCUMENTS PHASE (90% Design Stage - plans and specs.)

A. After Metra has approved the 60% Design Development Phase Documents, the consultant shall proceed with the preparation of Construction Phase Documents in a form suitable for bidding.

B. Construction Document Phase Drawings and Specifications:

1. All aspects of the construction work shall be fully shown and detailed, so that the intent is understood by all concerned, thereby eliminating changes in the construction after the work is in progress.
- C. Update and resubmit the list of "final" Construction Alternates for consideration.
 - D. Update and resubmit the estimate of Construction Costs using the unit cost form
(A separate cost estimate is to be prepared for any off-site costs).
 - E. Update and resubmit the Project Schedule.
 - F. Update and resubmit the Staging Plans.
 - G. Respond to all individual items on the 90% checklist
 - H. The consultant shall review the plans with the municipality's code enforcement officers to ensure code compliance and shall provide review notes of those meetings.
 - I. The consultant shall submit fifteen (15) sets of the Construction Phase Documents to Metra within thirty (30) days after approval of the Design Development Phase Documents. Consultant should direct all agencies to send review comments directly to Metra. Within two weeks after receiving all the Construction Phase Documents, a meeting will be scheduled for the purpose of discussing the Construction Phase Documents. The consultant will be held responsible for meeting minutes and distribution to all project participants within five (5) days.
 - J. Within fifteen (15) days after METRA's approval of the 90% Design Stage plans and specifications, consultant shall submit the Final Bid Documents and 100% plans to Metra.

IX. BIDDING PHASE

- A. The consultant shall finalize the Construction Phase Documents for bidding purposes.
- B. The consultant shall supply Metra with sixty (60) sets of the finalized Construction Phase Documents, one (1) set of reproducible documents, one set of half size drawings, one CD, and one (1) set of the Bidding Phase Supplemental Documentation within (15) days after Metra's approval of the Construction Phase Documents for bidding purposes. The consultant shall submit final cost estimate and when requested a bid tabulation form as directed by Metra's Project Manual.
- C. Consultant will be responsible for the preparation of all Addenda approved and distributed by Metra.
- D. Consultant will be present at all on-site "Pre-Bid" meeting.
- E. Metra will receive and open bids.
- F. Consultant shall submit its written recommendation on awarding of the contract(s), when requested by Metra.
- G. Metra shall notify the successful bidder(s), assemble and deliver the construction contracts for execution to the appropriate parties.

X. CONSULTANT COMPENSATION

- A. The general rate of compensation to the consultant shall be as follows:
 - 1. Schematic Design Phase (30% Phase) 25%
 - 2. Design Development Phase (60% Phase) 30%
 - 3. Construction Document Phase (90% Phase) 40%
 - 4. Bidding Phase (100% Phase) 5%
- B. Any request for payment by consultant shall be on the Consultant Application for Payment Form.

XI. PROCEDURES FOR CONSULTANT CONTRACT MODIFICATION

- 1. If consultant feels that a contract modification is necessary, consultant shall immediately notify Metra, in writing, of such opinion.
- 2. In all such cases, (except for contract time extension with dollars), consultant shall prepare a revised "4400 Form" detailing all extra costs and/or credits involved in said changes in scope/schedule and submit for Metra's review.
- 3. Metra shall then approve or deny such request and shall notify consultant in writing of the decision.
- 4. All consultant changes must have written approval from Metra prior to executing any work caused by the change.

XII. QUALITY PROGRAM

The design consultants/contractors shall furnish, maintain, implement a quality management program that state how they effectively manage, control and document the work in accordance with Metra Corporate Quality Management Plan. The Quality Management Program shall be consistent to policies, procedures, instructions and the organization necessary to provide adequate control and assurance of quality and submitted prior to start of work, for Metra's acceptance. Any quality program must be consistent with the FTA Quality Assurance & Quality Control guidelines as FTA-IT-90-5001-02.1 issued in February 2002, which is available from the National Technical Information Services Springfield Virginia 22161. The QA/QC guidelines are also available at the FTA website: www.FTA.gov/1311_eng_html.htm. In the course of the work, the design consultants /contractors are subjected to audit by Metra to verify its implementation and assurance of the effectiveness of the quality. The design consultants/contractors are required to take immediate steps for the corrective action to rectify the deficient areas. The design consultants/contractors shall also access the Stations & Parking Design website at www.metrarr.com/techservices for additional documentation and quality requirements.

XIII. ATTACHMENTS

All design and construction is to be in accordance with the following documents that are attached hereto and made a part of this document:

- A. Exhibit "A"- Project Scope