# **CONTRACT DOCUMENTS**

**FOR** 

# CITY HALL EXTERIOR BUILDING RENOVATION

**FOR** 

CITY OF BLUE ISLAND, IL

# **BID SUBMITTED BY**

**COMPANY NAME** 

STREET ADDRESS

DATE

CBBEL PROJECT NO. 21-0535.00018

**FOR BID** 

BID DUE AUGUST 4, 2023 (BEFORE 11:00 A.M. LOCAL TIME)



# CHRISTOPHER B. BURKE ENGINEERING, LTD.

9575 West Higgins Road

Suite 600

Rosemont, Illinois 60018-4920 Tel (847) 823-0500 Fax (847) 823-0520

# PROJECT SPECIFICATIONS AND INFORMATION

FOR

# CITY HALL EXTERIOR BUILDING RENOVATION

FOR

CITY OF BLUE ISLAND, IL

OWNER: CITY OF BLUE ISLAND

13051 GREENWOOD AVENUE BLUE ISLAND, IL 60406

CONSULTANT: CHRISTOPHER B. BURKE ENGINEERING, LTD.

9575 WEST HIGGINS ROAD

SUITE 600

ROSEMONT, IL 60018 (847) 823-0500

CONTRACT DOCUMENTS CONSISTING OF

BIDDING REQUIREMENTS
CONTRACTUAL DOCUMENTS
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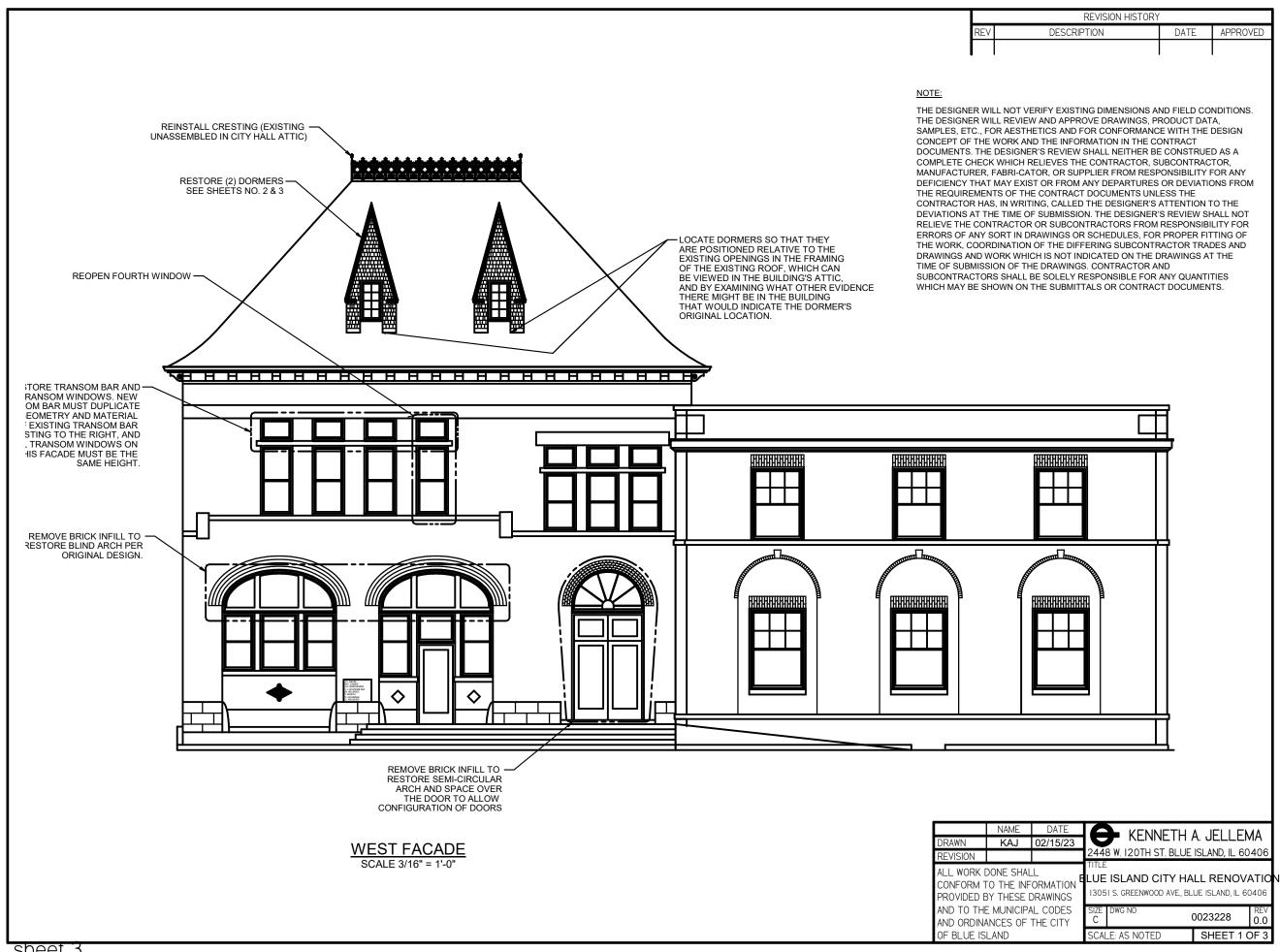
#### **SECTION 00 08 50**

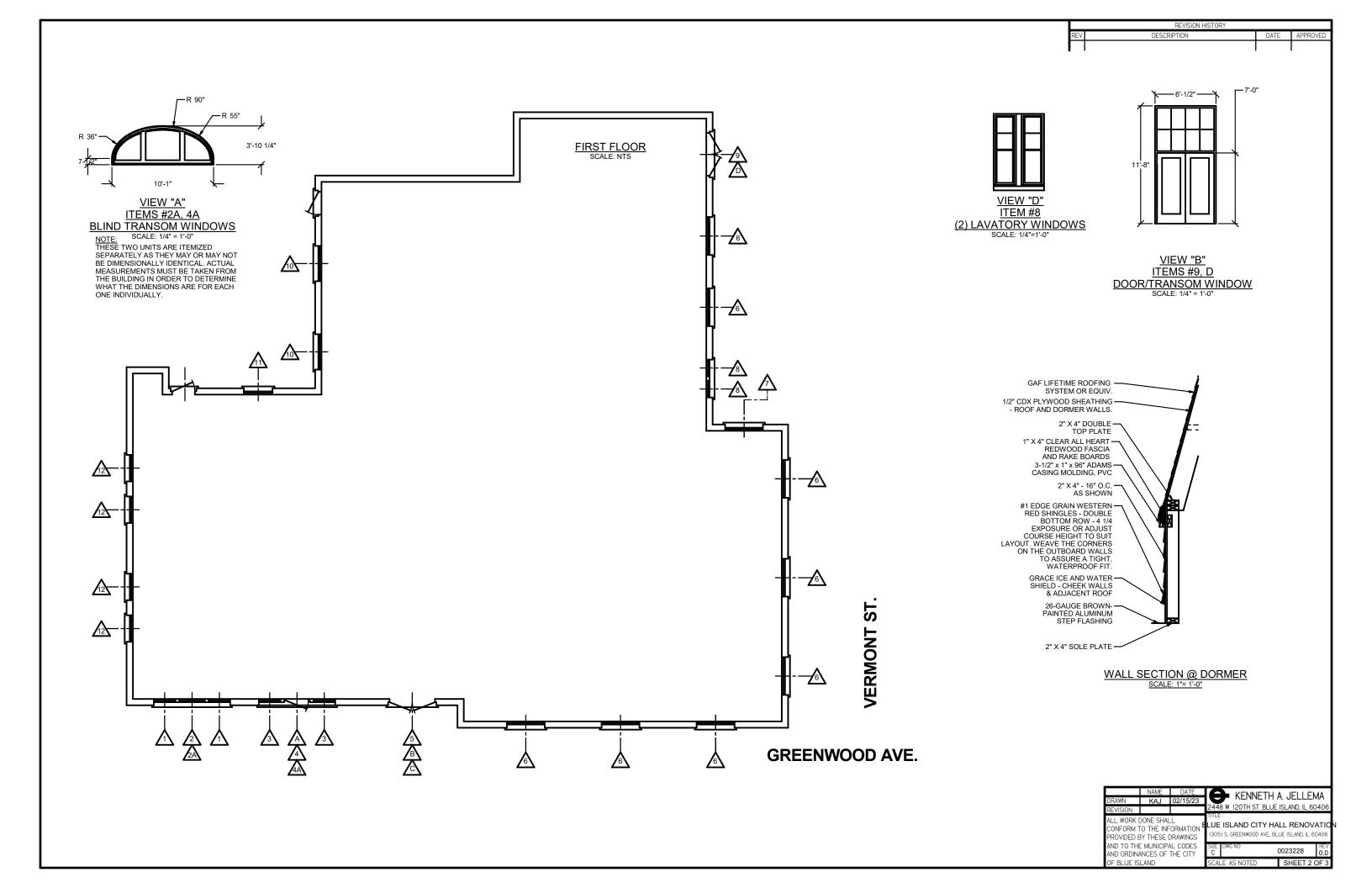
Drawings have been included in these Bidding Documents for informational purposes only and may not reflect all existing conditions. The information provided is not intended to depict all Work. Contractor shall be responsible for inspecting the site and determining actual conditions and the nature of Work involved for this Project.

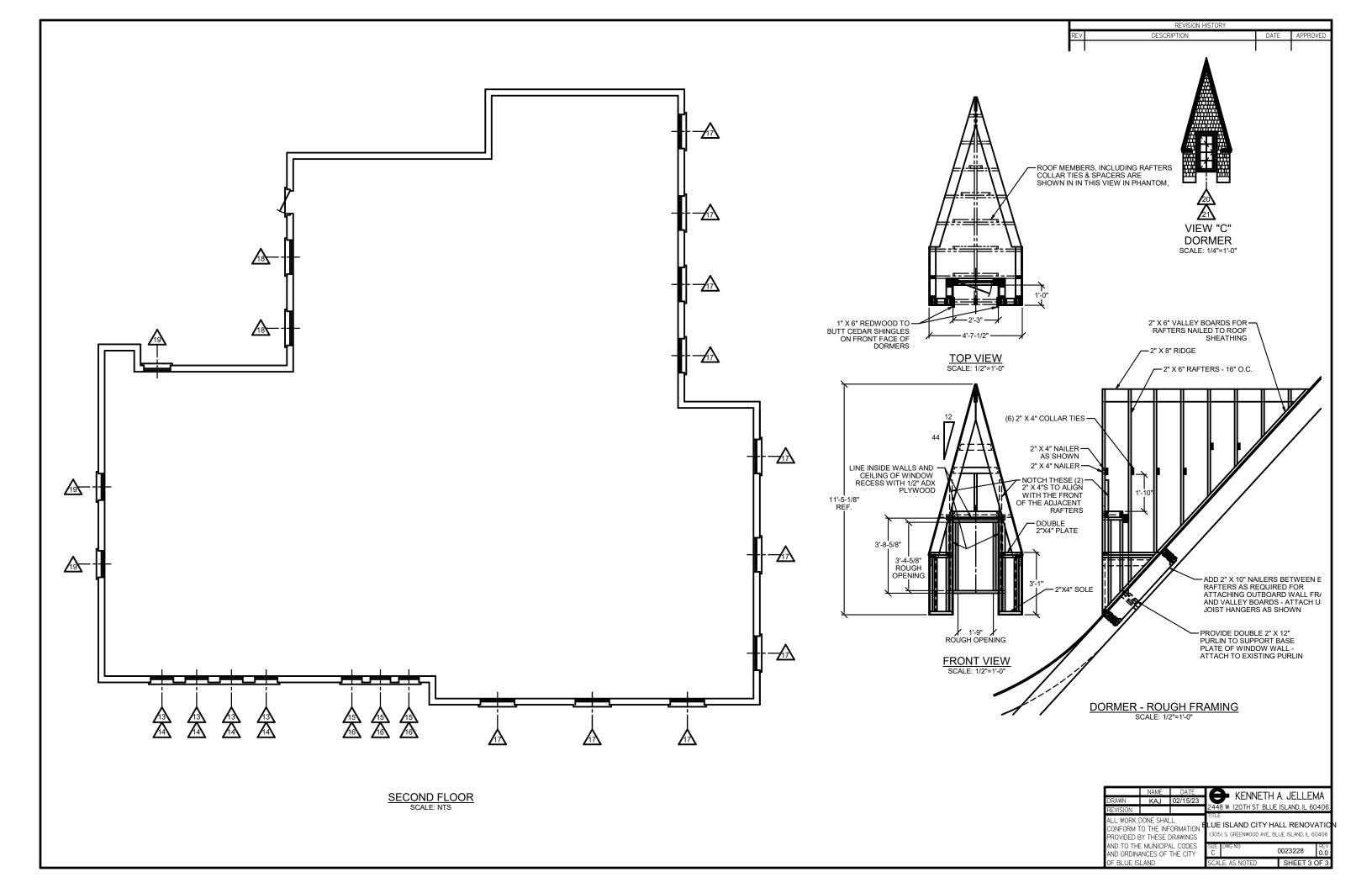
If awarded the Contract and before starting Work, the Contractor shall field verify for accuracy all information pertinent to this project and conditions as noted thereon. Any discrepancies found shall be brought to the attention of the Owner immediately. If such discrepancies will result in changes to Contractor's prices, these changes shall be discussed with the Owner and executed <u>before Contractor starts Work.</u> The Owner will not accept any changes in Contract Price after start of Work which may or may not be due to any discrepancy in the information presented.

**END OF SECTION** 

21-0535.00018 03/20/23 00 08 50-1







# REPLACEMENT WINDOWS AND DOORS AS NOTED FOR BLUE ISLAND CITY HALL - 13051 GREENWOOD AVE.

# FIRST FLOOR WINDOWS

					MASONRY	OPENING	FIN	ISH			
DWG. ITEM	QUOTE LINE	ТҮРЕ	DIVIDED LITE PATTERN 1	SCREENS	w	н	INTERIOR	CLAD COLOR	QUANT.	COMMENTS	
1	1	single hung	n/a	<b>✓</b>	10'-1"	5'-2"	pine/stained	cashmere	2	Check rails to line up with bottom rail of transom	These 3 units should be combined. Match mullion
2	_	single hung	n/a	✓	10 1	3 2	pine/stained	cashmere	1	window #4	widths with mullions on either side of transom 4
2A	2	elliptical/3-centered arch transom (blind)	n/a		major axis 10'- 1"	minor axis 3'- 2"	pine/painted white	cashmere	1	See View "A" for approximate dimensions <sup>2</sup> - non-operable - opening to be created by others	Match mullion widths with those in the opening below it - provide with smoked glass
3	3	single hung	n/a	✓	3'-0"	5'-9"	pine/stained	cashmere	2	Check rail to line up with bottom rail of transom window #4	
4	5	transom window	n/a		3'-0"	2'-6"	pine/stained	cashmere	1	see comments for windows #1, 2 & 3	
4A	6	elliptical/3-centered arch transom (blind)	n/a		major axis 10'- 1"	minor axis 3'- 2"	pine/painted white	cashmere	1	See View "A" for approximate dimensions <sup>2</sup> - non-operable - opening to be created by others	Match mullion widths with those in the opening below it - provide with smoked glass
5	9	semi-circular transom window	6 radial spokes with semi-circle base		38" radius	38"	to match doors "B" and transom window "C"	cashmere	1		
6	10	single hung	6 over 1	<	5'-0"	7'-2 1/2"	pine/stained	cashmere	8		
7	11	single hung	6 over 1	✓	4'-0"	7'-2 1/2"	pine/stained	cashmere	1		
8	12	single hung	2 (horizontal) over 1	✓	2'-2 3/4"	7'-2 1/2"	pine/painted white	cashmere	2	see View "D" - a 6 1/2" mullion separates these two units in a single masonry opening; each unit serves a separate lavatory	
9	14	transom window	8 lights		7'-1"	4'-6"	pine/finished to match doors item "D"	cashmere	1	see View "B"	
10	15	single hung	n/a	✓	4'-6"	6'-8 1/2"	pine/painted white	cashmere	2		
11	16	single hung	n/a		3'-9 1/2"	3'-8"	pine/painted white	cashmere	1		
12	17	single hung	n/a	$\checkmark$	3'-6"	8'-0"	pine/stained	cashmere	4		
			7/8" Std. Simulated Divided Lites w/o spacer (SDL) <sup>1</sup>							<sup>2</sup> These two items are likely identical	
							TOTAL UNI	TS, FIRST FLOOR	28	TOTAL COST - 1ST FLOOR	

# **SECOND FLOOR & ATTIC WINDOWS**

					MASONRY C	PENING	FIN	ISH			
ITEM	QUOTE LINE	ТҮРЕ	DIVIDED LITE PATTERN 1	SCREENS	w	н	INTERIOR	EXTERIOR	QUANT.	COMMENTS (PART NO.)	
13		single-hung	n/a	<b>~</b>	3'-0"		pine/stained	cashmere	4		replacement of the transom
14	18	transom window	n/a		3'-0"	8'-5"	pine/stained	cashmere	4	height of these units must match the height of transom windows item #16	bar and opening of fourth window to be done by others
15	19	single-hung	n/a	✓	2'-8 1/2"	4'-11"	pine/stained	cashmere	3	!!! QUANTITY ON QUOTE	
16	19	transom window	n/a		2'-8 1/2"	2'-0"	pine/stained	cashmere	3	SHOWS 4 !!!	
17	20	single-hung	6 over 1	<b>~</b>	4'-6"	6'-4"	pine/stained	cashmere	10		
18	21	single-hung	n/a	✓	4'-6"	6'-8"	pine/painted white	cashmere	2		
19	22	single-hung	n/a	✓	3'-6"	8'-0"	pine/stained	cashmere	3		
20	23	casement	8 Lites	<	1'-9" RO <sup>3</sup>	3-7" RO <sup>3</sup>	pine/painted white	cashmere	1	UCAPO2044 (FCL)	these (2) windows are for new construction in the restored dormers and will be
21	24	casement	8 Lites	<b>~</b>	1'-9" RO <sup>3</sup>	3'-7" RO <sup>3</sup>	pine/painted white	cashmere	1	UCAPO2044 (FCR)	installed by others. See View "C"
			7/8" Std. Simulated Divided Lites w/o spacer (SDL) <sup>1</sup>		<sup>3</sup> Except as not	ed	TOTAL UNITS, S	ECOND FLOOR & ATTIC	31	TOTAL COST - 2ND FLOOR & ATTIC	

# **ALL DOORS**

							FINISH				
ITEM	QUOTE LINE	DESIGN	SWING	QUANT.	SIZE	INTERIOR	EXTERIOR	QUANT.	QUANT.	COMMENTS	
Α	4	COMMERCIAL TBD	left-hand reverse	1	36" x 7'-0"	TBD	TBD	1	1	provide with ADA-compliant hardware	
В	7	COMMERCIAL TBD	pair	1	36" x 7'-0"	TBD	TBD	1 set	1	provide with ADA-compliant hardware	Ultimate Commercial I
С	8	COMMERCIAL TBD	transom window	1	6'-4 1/2" X 2'-6"	TBD	TBD	1	1	transom for item "B" - see Detail "B"	per the top image in the (no muntins in doors)
D	13	COMMERCIAL TBD	pair	1	34" x 7'-0"	TBD	TBD	1 set	1	provide with ADA-compliant hardware	
							TOTA	L UNITS, DOORS	4	TOTAL COST, DOORS	
								TOTAL UNITS	63	TOTAL COST	

#### **ADVERTISEMENT FOR BIDS**

#### **SECTION 00 11 13**

The Mayor and City Council will receive sealed proposals for the following improvements at the City Clerk's Office, City Hall, 13051 Greenwood Avenue, Blue Island, IL 60406 until 11:00 A.M. on **Friday, August 4, 2023**.

# CITY OF BLUE ISLAND, IL CITY HALL EXTERIOR BUILDING RENOVATION

Proposals will be publicly read aloud at 11:01 A.M. on **Friday**, **August 4**, **2023**. No bid shall be withdrawn after the opening of the proposals without the consent of the Mayor and City Council for a period of forty-five days after the scheduled time of closing bids.

This project generally consists of the removal and replacement of the existing shingled roofing, masonry repairs and window replacement at City Hall; and all other related appurtenances and accessories necessary to complete the Work.

All proposals shall be sealed in an envelope, addressed to the City of Blue Island, attention City Clerk. The name, address and phone number of the bidder and the name of the project shall also appear on the outside of the envelope. Proposals must be submitted on the forms provided by the Engineer.

The Bidding Documents can be downloaded from QuestCDN via the Christopher B. Burke Engineering Ltd. (CBBEL) website <a href="http://cbbel.com/bidding-info/">http://cbbel.com/bidding-info/</a> or at <a href="www.questcdn.com">www.questcdn.com</a> under Login using QuestCDN #8606109 for a non-refundable charge of \$30.00. A QuestCDN login will be required. Contact QuestCDN.com at 952-233-1632 or <a href="info@questcdn.com">info@questcdn.com</a> for assistance in membership registration and downloading this digital project information. Contractors must purchase bid documents and be shown on the Bidder's Planholder List in order to bid. Bids received from contractors who are not in the Bidder's Planholder List will be rejected.

A certified check/bank draft drawn on a solvent bank, payable without condition to the City of Blue Island, or a bid bond in an amount not less than ten percent (10%) of the bid shall be submitted with each proposal as a guarantee that, if the proposal is accepted, a contract will be entered into and the performance of the contract is properly secured.

A Performance Bond and Payment Bond, each in a sum equal to one hundred percent (100%) of the amount of the bid with sureties to be approved by the Mayor and City Council, must be furnished by the successful bidder. All bids or proposals shall contain an offer to furnish bonds upon acceptance of such bid or proposal.

Contractors shall be licensed and registered with the State of Illinois and City of Blue Island. Bids received from contractors who are not registered and licensed will be rejected.

Contractors shall conform to the "Public Works Preference Project" Act, (30 ILCS 560/1, et Seq.)

Contractors shall be required to pay not less than the prevailing wage rates on the Project as established by the United States Department of Labor and the State of Illinois Department of Labor. Copies of these wage rates are incorporated in the Contract Documents.

Bids will only be received from qualified contractors. The right is reserved to reject any or all proposals, to waive technicalities, to postpone the bid opening, or to advertise for new proposals, if in the judgment of the Mayor and City Council their best interests will be promoted thereby.

Mayor and City Council City of Blue Island

#### **SECTION 00 21 13**

#### 00100 GENERAL

To demonstrate qualification for performing the Work of this Contract, Bidders may be requested to submit written evidence of financial position, previous experience, and/or current commitments.

Escalation of Contract price will not be allowed. All prices quoted must represent the entire cost in accordance with the Contract Document and no subsequent claim will be recognized for any increase in wage scales, material prices, cost indexes, or other rates affecting the construction industry or this project.

The Bidding Documents can be downloaded from QuestCDN via the Christopher B. Burke Engineering Ltd. (CBBEL) website <a href="http://cbbel.com/bidding-info/">http://cbbel.com/bidding-info/</a> or at <a href="www.questcdn.com">www.questcdn.com</a> under Login using QuestCDN #8606109 for a non-refundable charge of \$30.00. A QuestCDN login will be required. Contact QuestCDN.com at 952-233-1632 or <a href="info@questcdn.com">info@questcdn.com</a> for assistance in membership registration and downloading this digital project information. Contractors must purchase bid documents and be shown on the Bidder's Planholder List in order to bid. Bids received from contractors who are not in the Bidder's Planholder List will be rejected.

#### 00101 BID DUE DATE, TIME AND PLACE

Signed bids, under seal, executed and dated for furnishing all services, labor, equipment, materials, and performing all Work necessary for the **City Hall Exterior Building Renovation** located at 13051 Greenwood Avenue, Blue Island, IL 60406, all in accordance with the Contract Documents, will be received from Pre-Qualified Contractors by the Owner located at the **City of Blue Island**, **13051 Greenwood Avenue**, **Blue Island**, **IL 60406** on or before **11:00 a.m.** local time on the **4**<sup>th</sup> day of **August**, **2023**.

Bids will be opened publicly and read aloud at the above address at 11:01 a.m. local time. No immediate decision shall be rendered concerning the proposals submitted.

If only one bid has been received on the day of the bid opening, this bid may not be opened, but instead be presented to the **City Council** at its next regular council meeting for consideration.

Bid offers submitted after the above bid opening due time will be returned to the Bidder unopened.

# 00102 SUBMISSION OF BID

Bidders shall submit **one (1) copy** of their proposal, together with Bid Security, affidavit of non-collusion and all other documents bound herewith, including all Addenda issued, in sealed envelope addressed as follows:

City of Blue Island 13051 Greenwood Avenue Blue Island, IL 60406

# Subject: Proposal for City Hall Exterior Building Renovation

In addition, the sealed envelope submitted by the Bidder shall include the following information on the envelope face: Bidders name and address, and the date and hour of bid opening as designated herein.

Where proposals are sent by mail, special messenger, courier service, etc. the Bidder shall be responsible for the delivery of the Bid as designated herein prior to the designated date and hour for the opening of the Bids. If delivery is delayed beyond the date and hour set for the bid opening, proposals thus delayed will not be considered and will be returned unopened to respective bidders.

#### 00103 PROJECT DESCRIPTION & SCHEDULE

<u>The Project</u> in general consists of the removal and replacement of the existing shingled roof, windows and masonry repairs, and all other related appurtenances and accessories necessary to complete the Work.

Working Hours. Working hours shall be 7:00 AM to 5:00 PM weekdays and 7:00 AM to 5:00 PM weekends, as allowed by the City.

<u>Project Schedule</u>. This City plans to award this contract by **August 8**, **2023**. The City expects to receive ComEd incentives for this project which is contingent on the date that work is completed. The successful Bidder shall submit in writing, a construction schedule showing sequence of operations for review by the Owner prior to commencement of Work.

#### 00104 LICENSE OR ROYALTY FEES.

If the Project is designed to require or permit use of processes, articles, apparatus or equipment for which licenses, or royalty fees will be charged, fees shall be paid directly by Contractor to patentee, licensee or owner of such processes, and fees shall be included in bid.

# 00105 EXAMINATION BY BIDDER

The Bidder shall, before submitting his/her proposal, carefully examine the Contract Documents, proposal, and bond and insurance requirements. The Bidder shall inspect in detail the location(s) of the proposed Work and familiarize themselves with the detailed requirements of all Work, and with all the local conditions affecting the Contract under which he/she will be obligated to operate in performing the Work. By submission of a bid it is understood that the Bidder has satisfied this mandatory requirement. If his Bid is acceptable, the Bidder shall be responsible for, and the **Owner** will make no allowance for, any errors in his/her proposal resulting from his/her failure or neglect to comply with these instructions.

A pre-bid meeting will be held for this project on Thursday, July 27, 2023 at 9:30 a.m. All parties will meet in front of the 1891 City Hall Building. All questions need to be submitted by July 26, 2023 so that the questions can be answered at the pre-bid meeting.

00106 (NOT USED)

#### 00107 INTERPRETATION OF CONTRACT DOCUMENTS

Questions regarding documents, discrepancies, omissions, or intent of the Specifications or Drawings shall be submitted in writing to Owner at least eight (8) days prior to opening of Bids to provide time for issuing an Addendum. Any interpretation of the Contract Documents will be made only by Addendum duly issued or delivered by the Owner to each person receiving a set of Contract Documents. The Owner will not be responsible for any other explanations or interpretations of the Contract Documents. Failure on the part of the prospective Bidder to receive a written interpretation prior to the time of bid opening will not be grounds for withdrawal of his/her proposal. The Bidder shall acknowledge receipt of each Addendum issued in the space so provided in the Bid Form. Oral explanations will not be binding.

#### Direct questions to Mr. Gerald Hennelly, at ghennelly@cbbel.com.

#### 00108 APPROXIMATE QUANTITIES

On all items on which bids are to be received on a unit price basis the quantities stated in the Bid will not be used in establishing final payment due Contractor. The quantities stated, on which unit prices are invited, are approximate only. Bids will be compared on the basis of number of units stated in the Bidding Schedule. Payment on the Contract on unit price items will be based on the actual number of units installed (or otherwise performed) in the completed Work.

#### 00109 PREPARATION OF PROPOSAL

The Bidder shall prepare his/her proposal on the attached Bid Form. Unless otherwise stated, all blank spaces of the Bid Form must be correctly filled in. Entries must be stated for each and every item, either typed in or written in ink. Only Bids which are made out on the Bid Form included in this Document will be considered. Amounts are to be shown in both words and figures. In case of discrepancy between words and figures the words shall prevail, unless it clearly appears in Owner's opinion that the words rather than the figures are in error. If any portion of the Bid is required to be given in unit prices and totals, and a discrepancy exists between the unit prices and totals, the unit prices shall prevail, unless

it clearly appears in Owner's opinion that the unit prices rather than the totals are in error. If a discrepancy exists between the total base bid and the true sum of the individual bid items, the true sum shall prevail. A bid will be rejected if it does not contain a price for each and every item named in the Bidding Schedule. Bidders are warned against making any erasures or alterations of any kind, and bids which contain omissions, erasures, conditions, alterations, or additions not called for may be rejected.

#### 00110 SIGNING OF BID

If the Bidder is a corporation, the legal name of the corporation shall be set forth together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If the Bidder is a co-partnership, the true name of the firm shall be set forth together with the signatures of all the partners. If the Bidder is an individual, his/her signature shall be inscribed. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a power of attorney must be on file with the Owner prior to bid opening or submitting bids; otherwise the Bid may be regarded as irregular and may be rejected.

# 00111 BID SECURITY

Each Bid shall be accompanied by a bid bond, cashier's check or certified check drawn on a solvent bank in the State of Illinois payable without condition to the Owner in an amount not less than ten percent (10%) of the Bidder's highest aggregate bid amount whether it be for the Base Bid or the Alternative Bid(s) (when Alternatives are requested), as a guarantee that the Bidder will within ten (10) days after the date of the award of a contract execute an agreement and file bond and insurance as required by the Contract Documents if his/her Bid is accepted. Bid not accompanied by a bid security will not be considered.

If an intended awardee fails to execute and file an agreement, bonds and insurance as required by the Contract Documents, the amount of the security submitted with his/her Bid shall be forfeited, not as a penalty, but as liquidated damages. No Bid will be considered unless accompanied by a Bid Security as a guarantee that if the Bid is accepted the Bidder will execute the Agreement and file bonds and insurance as required by the Contract Documents within 10 days from the date of the award of the Contract.

The bid security of the three (3) lowest bidders will be retained until a contract has been entered into and executed with the successful bidder and the performance and labor and material payment bonds, each in the full amount of the Contract, have been posted with the **City of Blue Island** and Certificates of Insurance indemnifying and adding as Additional Insureds, the **City of Blue Island** and Christopher B. Burke Engineering, Ltd., and their officers, employees and agents, have been delivered to and reviewed by the Engineer.

#### 00112 RETURN OF BID SECURITIES

The bid securities of the three lowest bidders will be held until the Agreement has been executed by the successful Bidder and he/she has filed with Owner the required bonds and insurance, after which bid securities will be returned to the three lowest bidders. The bid securities of the other Bidders will be returned within 15 days after the opening of the Bids.

# 00113 CONSIDERATION OF PROPOSALS

No proposal will be accepted from or Contract awarded to any person, firm or corporation that is in arrears or is in default to the Owner upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to the Owner, or had failed to perform faithfully any previous contract with the Owner.

The Owner reserves the right to accept or reject any or all bids, to waive any informalities in any bid, or to make awards in the best interest of the Owner. The Owner also reserves the right to award a partial amount of the Specification rather than the entire amount.

#### 00114 BID SUBMITTAL

Any bid may be withdrawn at any time prior to the hour herein stated for the bid opening, provided that a request in writing, executed by the Bidder, or his/her duly authorized representative, for the withdrawal of such Bid is filed with Owner prior to the time specified for opening of Bids. The withdrawal of a Bid will not prejudice the right of a Bidder to file a new Bid.

No Bidder shall withdraw, cancel or modify his/her proposal for a period of forty-five (45) consecutive calendar days after the specified closing time for the receipt of proposals, nor shall the successful Bidder withdraw, cancel or modify his/her proposal after having been notified that said proposal has been accepted by the Owner.

Bidders shall guarantee their bids for a period of forty-five (45) consecutive calendar days from the date of receipt of bids.

#### 00115 PENALTY FOR COLLUSION

If at any time it shall be found that the person, firm or corporation to whom the Contract has been awarded has, in presenting any Bid or Bids, colluded with any other party or parties, then the Contract so awarded shall be null and void, and Contractor and his/her sureties shall be liable to Owner for all loss or damage which Owner may suffer thereby, and Owner may advertise for new bids for said Work.

#### 00116 LICENSE AND EXPERIENCE

Each Bidder shall possess state and local licenses as are required by law, and shall furnish satisfactory proof to Owner upon request that the licenses are in effect during the entire period of the Contract.

To be considered as eligible to submit a proposal, a Bidder shall have complied with all legal requirements to permit him/her to operate under applicable laws of the State of Illinois.

The Contractor bidding the project shall be actively engaged in Work of the nature of the project described and have adequate specialized workers and machines to do the Work.

#### 00117 ACCEPTANCE/REJECTION OF PROPOSALS

The Owner expects to accept one of the proposals or reject all proposals within **twelve (12) days** from the date of bid opening, unless the lowest responsive Bidder, upon request of the Owner, extends the time of acceptance to the Owner.

The Owner reserves the right to reject any and all proposals when such rejection is in the interest of the Owner, to reject proposal of a Bidder who has previously failed to perform properly, or complete on time, contracts of a similar nature, and to reject proposal of a Bidder who is not, in opinion of the Consultant or the Owner, in a position to satisfactorily perform the Work of the Contract. The Owner also reserves the right to waive any informalities and technicalities in bidding.

Under normal circumstance Contract will be awarded to lowest responsible Bidder, plus any accepted alternates, unless all bids are rejected. However, the Owner reserves the right to award Contract in its best interest, and therefore, reserves the right to select a Bidder other than lowest.

# 00118 EFFECTIVE DATE OF AWARD

If a Contract is awarded by Owner, such award shall be effective when formal notice of such award, signed by the authorized representative of Owner, has been delivered to the Intended awardee, or mailed to him/her at the main business address shown on his/her Bid by an officer or agent of Owner duly authorized to give such notice.

#### 00119 EXECUTION OF AGREEMENT

Copies of the Agreement in the number stated in the Contract Agreement will be supplied by the Owner and shall be executed by the successful Bidder, and returned, together with the required bonds and insurance, within ten (10) days from and after the date of the award of the Contract. Effective date of

bonds shall be the same or later than the date of the Agreement.

# 00120 FAILURE TO EXECUTE AGREEMENT AND FILE BOND & INSURANCE

Failure of a successful Bidder to execute the Agreement and file required bonds and insurance within the required time shall be just cause for the annulment of the award. On failure of a successful Bidder to execute the Agreement and file the required bonds and insurance within the required time, he/she shall forfeit his/her Bid Security as agreed hereinbefore. Upon annulment of an award as aforesaid, Owner may then re-award the Contract.

#### 00121 EXCEPTIONS

Any Bidder's exceptions to these terms or conditions or deviations from the written Specifications shall be shown in writing and attached to the Bid Form. However, such exceptions may be cause for rejection of the Bid.

#### 00122 SUBSTITUTE MATERIAL

Where certain equipment/materials are specified, no other substituted equipment/materials will be allowed.

#### 00123 GUARANTEE

The Contractor shall furnish a satisfactory surety bond in the sum of the full amount of the Contract in dollars guaranteeing the proper completion of the Work and the maintenance of the Work during the period of six (6) months from and after the date of the completion and acceptance of the same. The maintenance, however, shall not include any damage to the Work or to any of the other obligations embraced by the Contractor which may be incurred by action beyond the control of the Contractor.

#### 00124 PAYMENT BOND

The Contractor shall furnish a satisfactory payment bond in the full amount of the Contract guaranteeing payment of all material used and for all labor performed.

# 00125 PERMITS

The Contractor shall be responsible for any and all permits and permit fees as may be required to accomplish the work of this Contract. The Contractor shall be required to comply with all provisions of each of the permits issued, post the necessary bonds in the required amounts, and furnish the necessary insurance certificates.

#### 00126 PREVAILING WAGE RATES

Not less than a prevailing wage rate shall be paid for labor on the Work to be performed under this Contract, as required by law. The rates for various phases of Work contemplated shall be in accordance with the prevailing wage scale. The Contractor shall be required to comply with all applicable federal, state and local laws pertaining to employment. Illinois workers shall be employed to perform Work in accordance with the provisions of Illinois Revised Statutes, Chapter 48, Section 2201 et seq., latest revision. The Owner may at any time inquire of the Contractor as to the rates of wages being paid employees of the Contractor, any subcontractor or material men, where upon such information shall be promptly provided to the Owner. A certified payroll shall be submitted with each pay out request.

#### 00127 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

Each Bidder agrees as evidenced by his/her submission of a bid to comply with all terms of the <u>Equal Employment Opportunity Clause</u> of the Illinois Fair Employment Practices Commission: and to comply with all Illinois labor laws, particularly with regard to:

A. "Preference to Citizens Illinois on Public Works Projects Acts" (Illinois Revised Statutes, Chapter 48, Section 289 - 275).

B. "Wages of Employees on Public Works" (Prevailing Wage Act) (Illinois Revised Statutes, Chapter 48, Section 395-1-12.

The Contractor, in performing under the Contract, shall not discriminate against any worker, employee or applicant, or any member of the public because of race, creed, color, age, sex or national origin, nor otherwise commit an unfair employment practice. The Contractor further agrees that this article will be incorporated by the Contractor in all contracts entered into with suppliers of materials or services, contractors and subcontractors and all labor organizations, furnishing skilled, unskilled and craft union skilled labor, or who may perform any such labor or services in connection with this Contract.

#### 00128 TAXES

Federal Excise Tax does not apply to materials purchased by the **City of Blue Island** by virtue of its municipality status. The **City of Blue Island** is a not-for-profit agency which has a sales tax exemption status. Owner's Tax Exemption Number will be provided (if requested) to the successful Bidder upon execution of the Agreement.

#### 00129 LIQUIDATED DAMAGES

Time is of the essence to the contract. Should the Contractor fail to complete the work before the completion date stipulated in the contract, the Contractor shall be liable and shall pay to the **City of Blue Island \$750 per day**, not as a penalty but as liquidated damages. The **City of Blue Island** will deduct these liquidated damages from any monies due or to become due to the Contractor from the **City of Blue Island**.

#### 00130 DEFINED TERMS

The terms "City of Blue Island", "Proposal" and "Plans" mean the same as "OWNER", "BID", and "DRAWINGS" respectively.

Where references are made to "City" or "the City", such references shall be understood to mean "City of Blue Island".

Where **Owner's Representative** is referenced, such reference shall be understood to mean the Engineer (when appointed by the Owner), and/or any other individual(s) duly authorized by the Owner to act as the representative of the Owner.

Terms used in these Instructions to Bidders are defined in the General Conditions of Construction Contract Document (Section 00 72 00) Unless otherwise stated, these General Conditions of Construction Contract Document shall apply to the Work of this Contract; and shall be incorporated into this Contract as the General Conditions of the Contract all of which are as fully a part of this Contract as if herein set out verbatim.

**END OF SECTION** 

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# **EXISTING CONDITIONS, PLANS, PHOTOS & INFORMATION**

#### **SECTION 00 31 19**

Drawings and photographs have been included in these Bidding Documents for informational purposes only and may not reflect all existing conditions. The information provided is not intended to depict all Work. Contractor shall be responsible for inspecting the site and determining actual conditions and the nature of Work involved for this Project.

If awarded the Contract and before starting Work, the Contractor shall field verify for accuracy all information pertinent to this project and conditions as noted thereon. Any discrepancies found shall be brought to the attention of the Owner immediately. If such discrepancies will result in changes to Contractor's prices, these changes shall be discussed with the Owner and executed <u>before Contractor starts Work.</u> The Owner will not accept any changes in Contract Price after start of Work which may or may not be due to any discrepancy in the information presented.

#### **SECTION 00 41 00**

TO: CITY OF BLUE ISLAND 13051 GREENWOOD AVENUE BLUE ISLAND, IL 60406

PROJECT: CITY HALL EXTERIOR BUILDING RENOVATION

**ACKNOWLEDGMENTS**: The undersigned has received the Contract Documents entitled: "City Hall Exterior Building Renovation" and the following addenda to these documents:

Addendum No	Dated
Addendum No	Dated
Addendum No	Dated
Addendum No	Dated

All provisions of the Contract Documents and the addenda have been included in the Proposal submitted by the undersigned. The undersigned has carefully examined all of the Contract Documents and the sites and submits the following Proposal:

**AGREEMENT:** In submitting this Proposal, the undersigned agrees and/or understands:

- 1. Bids are to be held for **45 days** with a "Notice of Award" expected to be issued to the apparent successful bidder within **12 days** after the bid opening.
- 2. The prices in this bid have been arrived at independently, without consultation, communication or agreement, as to any matter relating to such prices with any other bidder or with any competitor and this Bid is in all respects fair and without collusion or fraud. Unless otherwise required by law, the prices which have been quoted in this Bid have not been knowingly disclosed and will not knowingly be disclosed prior to opening directly or indirectly to any other bidder or to any competitor. No attempt has been made nor will be made by the undersigned to induce any other person or firm to submit or not to submit a Bid for the purpose of restricting competition.
- 3. To enter into and execute the Contract and furnish the properly executed bonds and insurance certificates within the time and with the forms and in the amounts required by the Contract Documents if the award is made to the undersigned.
- 4. To accomplish the Work strictly in accordance with the Contract Documents.
- 5. To complete all Work within **the time periods specified and** after Notice To Proceed is received. The Bidder, in submitting a bid offer, accepts the specified Contract Time for performing the Work. Completion of Work shall be in accordance with the phased construction schedule. Contractor shall submit with the Bid a copy of the proposed construction schedule. Contractor shall comply with the applicable requirements of Section 00 72 00 regarding the construction schedule.
- 6. The undersigned warrants that he/she has carefully examined the sites of the Work and all Contract Documents, that he/she is fully aware and knows of the character of the material, that he/she is fully satisfied as to the conditions to be encountered overhead, on the surface and in the spaces, and of the character, quality and quantities of Work to be performed and materials to be furnished, and the requirements of the Contract Documents. Furthermore, the undersigned has based the within Contract prices on his/her own independent examination in performing the Work and has not relied upon any information furnished to him/her by the **Owner**, any agent, servant or employee of the **Owner**. The undersigned agrees to assume all risks arising from any deficiencies in the Drawings, Specifications, or other Contract Documents and will make no claim against the **Owner** because of any such alleged deficiency or alleged breach of warrant by the **Owner**. The undersigned further assumes all risks of any

unforeseen conditions to be incurred in performing the Work, either overhead, on the surface, or in spaces, and has taken these risks into consideration in preparing his/her Bid. The undersigned further warrants that he/she will perform such additional and/or corrective Work as may be required in order to insure that the Work performs its intended function satisfactorily, for the prices set forth in his/her proposal and at no additional cost to the **Owner**.

- 7. Before submitting this Proposal, the undersigned confirms that he/she has available the equipment, forces and materials necessary to perform the Work and made all necessary arrangements to insure that such equipment and materials be delivered to the site at such time as will enable him/her to perform all obligations of the Contract within the Construction Time herein stated. Furthermore, the undersigned also confirms that he/she has contacted the manufacturers and/or suppliers of the equipment and materials necessary to perform the Work and made all necessary arrangements to insure that such equipment and materials be delivered to the site at such time as will enable him/her to perform all obligations of the Contract within the Construction Time herein stated.
- 8. Accompanying this proposal is a Bid Bond complying with the provisions herein stated.
- 9. If this proposal is accepted and the undersigned fails to execute a contract and provide the bonds and certificate of insurance, as required, it is hereby agreed that the Bid Security shall be forfeited to the **City of Blue Island**, not as a penalty, but as liquidated damages.
- 10. Each pay item listed in the Bidding Schedule and in the Schedule of Prices shall have a unit price or lump sum price and a total price.
- 11. The unit price shall govern if no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity.
- 12. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.
- 13. A bid will be declared unacceptable if neither a unit price nor a total price is shown.
- 14. The undersigned firm certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the **State of Illinois**, nor has the firm made an omission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm. The undersigned firm further certifies that it is not barred from contracting with any unit of State or local government as a result of a violation of the State laws prohibiting bid-rigging or bid-rotating.

<u>NOTE</u>: Bidders shall submit a price for each Item in the Bidding Schedule and in the Schedule of Prices. Failure to do so may result in rejection of the Proposal. The completed Bidding Schedule included in this Section shall accompany the Bid Proposal.

# **BIDDING SCHEDULE:**

The undersigned, having carefully examined all of the Contract Documents for the "City Hall Exterior Building Renovation" as well as the location(s) of the Work and all conditions affecting the Work, including adjacent surroundings, shall furnish all services, labor, equipment and materials necessary and to complete all the Work for the prices set forth in the following Schedule:

Item No.	Description	Unit	Qty.	Unit Cost	Cost
1	Remove and Replace Existing Shingled Roofing Material on 1891 City Hall	L SUM	1		
2	Remove and Replace Existing Dormers on 1891 City Hall	L SUM	1		
3	Exterior Masonry Repairs	L SUM	1		
4	Remove and Replace Existing Gutters, Downspouts and Metal Clad Fascia	L SUM	1		
5	Existing Window and Door Removal and Replacement	L SUM	1		
	Insurance and Bonds	L SUM	1		
		TC	TAL BID		

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# **EXCEPTIONS AND DEVIATIONS**

The Bidder shall list herein all exceptions and deviation and page number. (Use additional sheets if required an	•
Exceptions and deviations taken to the Contract Docur Below ()/Sheet of	ments are (check one): None (); As Stated
Section/Pg. No.	Description of Exception/Deviation

# **SUBCONTRACTOR LISTING**

The following list of subcontractors and class of work performed by each is submitted. Subcontractors are defined as persons, firms or corporations who supply labor and/or materials for work under this Contract.

Subcontractor Class of Work

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00 41 00-4

# **BIDDER'S EXPERIENCE/QUALIFICATIONS**

Bidder is required to be licensed and registered with the State of Illinois and the City of Blue Island.

To demonstrate the Bidder's experience/qualifications, the Bidder shall list herein at least five (5) similar projects equal or greater in capacity and value which the Bidder has successfully completed within the past five (5) years.

Owner Reference

OrGeneral ProjectName and MunicipalityYearMunicipalityDescriptionPhone No.Completed

Note: Bid will be considered "Non-Responsive" if the above experience listing, qualifications and requirements are not fulfilled.

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00 41 00-5

#### **BID CONDITIONS**

It is expressly understood and agreed that quantities in the Bidding Schedule for Unit Price Work Items are approximate only, and that payment on the Contract will be made only on the actual quantities of Work complete in place, measured on the basis defined in the Contract Conditions and the Contract Specifications.

The undersigned has carefully checked the above Bidding Schedule against the Contract Drawings and Specifications before preparing this proposal and accepts the items listed in this Bid as substantially correct, both as to classification and amount, and as correctly listing the complete Work to be done in accordance with the Contract Drawings and Specifications.

If this Bid is accepted and the undersigned shall fail to contract as aforesaid and to give the Performance Bond and Payment Bond and to provide all insurance as required by the Contract Documents within **fifteen (15) days** after the date of the award of the Contract, the Owner may, at his/her option, determine that the Bidder has abandoned his/her Contract, and thereupon this Bid and the acceptance thereof shall be null and void, and the forfeiture of such security accompanying this Bid shall operate and the same shall be the property of the Owner as liquidated damages.

BID	SECL	JRITY
-----	------	-------

DID SECORTI	<del>'</del>	
Accompanying	g this Bid is a ofDollars (\$).	
Note:	<ul> <li>a. Insert the words "bid bond" or "cashier's check", or "certified check" as the case may be. In the case where bid security is not required by the contract insert the words "Not Required by Contract".</li> </ul>	
b.	Amount must be equal to at least <b>ten percent (10%)</b> of the Total Bid Price. Where an Alternative(s) has been requested, the Bid Security shall be at least ten percent (10%) of the highest aggregate amount whether it be the Total Base Bid Price or the Total Alternative Bid Price.	
	Attach Bid Security Here	
PROPOSAL S	SIGNATURE:	
	) ) ss	
County of	) <sup>′</sup>	
	, being first duly sworn on oath deposes the Bidder on the above Bid is organized as indicated below and that all statements re made on behalf of such Bidder and that his/her deponent is authorized to make them.	
	, also deposes and says that he carefully prepared his/her Bid from the Contract Drawings and Specifications and has ame in detail before submitting this Bid, that the statements contained herein are true and	

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(Fill Out Applicable Paragraph Below)

Bidder is:	
n Individual	
By(Individual's Name)	(SEAL)
doing business as	
Business address:	
Phone Number:	
. Partnership	
By(Firm Name)	(SEAL)
(General Partner)	
Business address:	
Phone Number:	
. Corporation	
By(Corporation Name)	· · · · · · · · · · · · · · · · · · ·
(State of Incorporation)	<del></del>
By(Name of Person Authorized to Sign)	
(Title)	<del> </del>
(Corporate Seal)	
Attest(Secretary)	(SEAL)
Business address:	
Phone Number:	

#### WAGE RATE REQUIREMENTS

#### **SECTION 00 43 43**

#### 1. GENERAL

- A. CONTRACTOR and Subcontractors shall pay wages not less than the prevailing hourly wage rate for each classification of employee engaged on the Work as determined by the United States Department of Labor and by the State of Illinois Department of Labor. In case of conflict, the wages paid by CONTRACTOR shall be not less than the higher of the prevailing wage determination.
- B. CONTRACTOR shall comply with the provisions of Wages of Employees on Public Works (Prevailing Wage] Act (Illinois Revised Statutes, Chapter 48, Section 39s-1 through 39s-12).
- C. The prevailing wage law does not prohibit payment of more than the prevailing rate of wages nor does it limit the hours of Work which may be performed by any employee in any particular period of time.
- D. A copy of the wage determination shall be posted by CONTRACTOR in a prominent place at the Site of the Work where it can be easily seen by the employees.
- E. If at the time the Contract is executed, or if during the term of the Contract, there is excessive unemployment in Illinois as defined in the Employment of Illinois Workers on Public Works Act, 30 ILCS 570-0.01 *et seq.*, as two consecutive months of unemployment exceeding 5%, the Contractor agrees to employ Illinois laborers as stipulated by the Act. An "Illinois laborer" is defined as any person who has resided in Illinois for at least thirty (30) days and intends to become or remain an Illinois resident.

#### 2. WAGE DETERMINATIONS

A. The following wage rate schedule(s) are the prevailing rate(s) of hourly wage applicable to this Contract.

If the Department of Labor revises the prevailing rate of hourly wages to be paid by the public body, the revised rate as provided by the public body shall apply to this Contract.

# **AFFIDAVIT OF NON-COLLUSION**

# **SECTION 00 45 19**

STATE OF ILL	INOIS)	)SS )
		being first duly sworn on oath deposes and states:
a.	That in	connection with this procurement,
	1.	the prices in this Bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
	2.	the prices which have been quoted in this Bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening directly or indirectly to any other bidder or to any competitor; and
	3.	no attempt has been made or will be made by the Bidder to induce any other person or firm to submit or not to submit a Bid for the purpose of restricting competition.
b. The undersigned further states		dersigned further states
	1.	He/She is the person in the Bidder's organization responsible within that organization for the decision as to the prices being bid herein and that he/she has not participated, and will not participate, in any action contrary to (a.1) through (a.3) above; or
	2.	He/She is not the person in the Bidder's organization responsible within that organization for the decision as to the prices being bid herein but that he/she has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (a.1) through (a.3) above, and as their agent does hereby so certify; and (b) he/she has not participated, and will not participate, in any action contrary to (a.2) through (a.3) above.
C.	promis	expressly understood that the foregoing statements, representations, and es are made as a condition to the right of the Bidder to receive payment under ard made hereunder.
For Corporatio	n:	
(Corporate Sea		(Name) Indicate if corporation, partnership or sole proprietor
ATTEST:		(Office held in Bidder Organization)
SUBSCRIBED	AND SV	WORN TO before me
this	day	y of , 20

END OF SECTION

Notary Public

#### DRUG FREE WORKPLACE

#### **SECTION 00 45 43**

**DRUG FREE WORKPLACE**. CONTRACTOR shall submit as a part of this contract, this "DRUG FREE WORKPLACE CERTIFICATIONS" statement, notarized, dated and signed by the highest-ranking company official in the geographical area, along with his/her title or position within the company.

#### DRUG FREE WORKPLACE CERTIFICATIONS

The CONTRACTOR acknowledges its obligations under the Illinois Drug Free Workplace Act and certifies that it will provide a drug-free workplace by:

- A. Publishing a statement:
  - 1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in the contractor's workplace.
  - 2) Specifying the actions that will be taken against employees for violations of such prohibitions.
  - 3) Notifying the actions that will be taken against employees for violations of such prohibitions.
    - a) abide by the terms of the statement in the workplace;
    - b) notify the employer of any criminal drug statue conviction for a violation occurring in the workplace no later than five days after such conviction.
- B. Establishing a drug free awareness program to inform employees about:
  - a) the dangers of drug abuse in the workplace;
  - b) the grantee's or contractor's policy of maintaining a drug free workplace;
  - c) any available drug counseling, rehabilitation, and employee assistance programs; and
  - d) the penalties that may be imposed upon employees for drug violations.
- C. Making it a requirement to give a copy of the statement required by subsection (1) to each employee engaged in the performance of the contract or grant, and to post the statement in a prominent place in the workplace.
- D. Notifying the Village of Flossmoor within 10 days after receiving notice under part (B) of paragraph (c) of subsection (1) from an employee or otherwise receiving actual notice of such conviction.
- E. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program, by any employee who is so convicted, as required by Section 5 of the Illinois Drug Free Workplace Act.
- F. Training personnel to effectively assist employees in selecting a proper course of action in the event drug counseling, treatment, and rehabilitation is required and indicating an effectively trained counseling and referral team is in place.
- G. Making a good faith effort to continue to maintain a drug free workplace through implementation of requirements of Section 3 of the Illinois Drug Free Workplace Act.

Signature
ame
itle
ate

# COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT; P.L.101-336

# **SECTION 00 45 44**

# COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT; P.L.101-336.

The CONTRACTOR will comply with all provisions of the Americans with Disabilities Act (ADA) in the execution of this Contract and provide to the Village a certification of compliance in substantially the following form:

The undersigned firm hereby certifies that it is in compliance with the Americans with Disabilities Act (ADA) as applicable to this contract.

(Company Name)	
(Company Address)	
By(Signature)	Date
(Print Name and Title)	
Attest By(Signature)	Date
(Print Name and Title)	

# BIDDER CERTIFICATION IN COMPLIANCE WITH ARTICLE 33 E TO THE "CRIMINAL CODE OF 1961"

# **SECTION 00 45 46**

I	, do hereby certify that:
1.	I am of the  Position Firm
	and have authority to execute this certification on behalf of this firm.
2.	This firm is not barred from bidding on this Contract as a result of a violation of either Section
	33E-3, Bid-Rigging, or Section 33E-4, Bid Rotating, as set forth in Article 33E to the "Criminal
	Code of 1961".
Name	of Firm
	ure
Title	
Date	
Corpo	rate Seal (where appropriate)
On this	s, 20, before me appeared
	e) to me personally known, who, being duly
sworn,	did execute the foregoing affidavit, and did state that he or she was properly
author	ized by (Name of Firm) to execute the
affidav	rit and did so as his or her free act and deed.
Notary	Public Commission Expires
Notary	Seal

**END OF SECTION** 

00 45 46-1

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# **NOTICE OF AWARD**

# **SECTION 00 51 00**

TO:			
PROJECT Description: <u>City Hall Exterior Bu</u>	uilding Renovation		
The OWNER has considered the BIDS received of described WORK in response to its Advertiseme and Instructions to Bidders.	on, 20, for the above ent for Bids dated, 20		
You are hereby notified that your BID has been a	accepted for items in the amount of \$		
	DDERS to execute the AGREEMENT and furnish the BOND, PAYMENT BOND and CERTIFICATE OF om the date of this Notice to you.		
of this NOTICE, said OWNER will be entitled to	rnish said BONDS within fifteen (15) days from the date consider all your rights arising out of the OWNER'S orfeiture of your BID SECURITY. The OWNER will be y law.		
You are required to return an acknowledge copy	of this NOTICE OF AWARD to the OWNER.		
Dated this day of	, 20		
	(Owner)		
BY:			
TITLE:			
ACCEPTAN	NCE OF NOTICE		
Receipt of the above NOTICE OF AWARD is her	reby acknowledged by		
this the day of	, 20		
BY:			
TITLE:			

# **NOTICE TO PROCEED**

# **SECTION 00 55 00**

TO:	DATE:		
	PROJECT:		
•	ORK in accordance with the Agreement dated		
	utive calendar days from the foregoing specified		
commencement date. The completion date of	all WORK is therefore,		
20			
	(Owner)		
BY:			
TITLE:			
ACCEPTAN	NCE OF NOTICE		
Receipt of the above NOTICE OF AWARD is her	eby acknowledged by		
this the day of			
BY:			
TITLE:			

#### **SECTION 00 52 00**

THIS AGREEMENT, made this	day of	, 20	by and between
the <b>City of Blue Island</b> hereinafter called "Contractor".	d "Owner", and		, hereinafter called
WITNESSETH:			
WHEREAS, Owner has heretofore, solic all things included within the hereinaft <b>Renovation.</b>		•	•
WHEREAS, Owner did on the Contractor was the lowest responsible b contract for said Work.	_ day of idder for hereinafter sp	ecified Work and did a	:0, find that award Contractor a
NOW, THEREFORE, for and in consid agreements, the parties hereto do hereb		l promises, covenants	s, undertaking and

# ARTICLE I - WORK TO BE DONE BY CONTRACTOR

Contractor agrees, at his/her own cost and expense, to do all the Work and to furnish all the labor, materials, equipment and other property necessary to perform and complete all the Work and improvements required for and related to the **City Hall Exterior Building Renovation** all in full accordance with and in compliance with and as required by the hereinafter specified Contract Documents, including any and all Addenda for said Work, and to do, at his/her own cost and expense, all other things required of the Contractor by said Contract Documents for said Work.

All Work shall be performed in accordance with applicable laws and government agency regulations and rules; Authorities having jurisdiction; OSHA regulations and rules; and any applicable rules and regulations of the **State of Illinois** or **Cook County** agencies. Furthermore, and as related to the Work, the Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations, and lawful orders of all public authorities bearing on the safety of persons or property or their protection from damage, injury or loss.

# ARTICLE II - CONTRACT DOCUMENTS

The Contract Documents herein named include all of the following component parts, all of which are as fully a part of this Contract as if herein set out verbatim, or if not attached, as if hereto attached:

- 1. Instructions to Bidders
- 2. Bidding Requirements
- 3. Bid Form
- 4. This Contract Agreement
- 5. General Conditions of the Contract
- 6. Supplementary Conditions (if any)
- 7. Contract Specifications
- 8. Contract Drawings
- 9. All Bonds, Insurance Certificates and Insurance Policies mentioned or referred to in the foregoing Documents.
- 10. Any and all other Documents or Papers included or referred to in the foregoing Documents.
- 11. Any and all Addenda to the foregoing.

#### ARTICLE III - CONTRACT PRICE

The Contractor agrees to receive and accept the following total lump sum bid price (and as may be adjusted for unit price work actually performed) as full compensation for furnishing all materials and equipment and for doing all the Work contemplated and embraced in this Agreement; also for all loss or

damage arising out of the nature of the Work aforesaid, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the Work until its acceptance by the Owner, and for all risks of every description connected with the Work; also for well and faithfully completing the Work, and the whole thereof, in the manner and according to and in compliance with the Contract Documents and the requirements of the Engineer under them; also for any and all other things required by the Contract Documents, to wit:

Owner agrees to pay Contractor for performance current funds as follows:	of Work in accordance with the Contract Documents in
Total Contract Price of(in writing)	Dollars (\$) (in figures)
This Total Contract Price shall consist of the ite Schedule.	emized prices as indicated in the Contractor's Bidding
Plus the following (List in detail additional work, i	if any, and corresponding amounts):

# **ARTICLE IV - CONTRACT TIME**

The Work of this Contract shall include all Work in accordance with the Contract Documents prescribed and specified and as related to the **City Hall Exterior Building Renovation**. Contractor shall provide a schedule for completion upon award of contract. The Contractor agrees to commence Work under this Contract within **ten calendar days** after the receipt from the Owner of a fully executed Agreement and Notice to Proceed and to fully complete all Work included in this Contract to the point of final acceptance by the Owner within the previously specified time period.

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#### ARTICLE V - LIQUIDATED DAMAGES

OWNER and CONTRACTOR recognize that time is of the essence in this Agreement and that OWNER will suffer financial loss if the Work is not completed within the time specified above, plus any extensions thereof allowed by the OWNER in writing. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall be liable and shall pay to the OWNER \$750 for each calendar day that expires after the specified completion time until the Work is completed and Final Acceptance is made by the Owner, not as a penalty but as liquidated damages. These liquidated damages for failure to complete the contract on time reflect losses that the OWNER would incur due to not receiving ComEd incentives due to project delay. The OWNER will deduct these liquidated damages from any monies due or to become due to the Contractor from the OWNER.

#### ARTICLE VI - PAYMENTS TO CONTRACTOR

<u>General</u>: Owner agrees with said Contractor to employ and does hereby employ, the said Contractor to provide the materials and do all the Work and do all other things hereinabove mentioned according to the terms and conditions hereinabove contained or referred to for the Total Contract Price aforesaid and hereby contracts to pay the same at the time, in the manner and upon the condition set forth or referred to hereinafter; and the said parties for themselves, their heirs, executors, administrators, successors and assigns do hereby agree to the full performance of the covenants herein contained.

<u>Application for Payment</u>: CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

<u>Progress Payments</u>: OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER, on or about the fifteenth day of each month during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in Paragraph 14.1 of the General Conditions.

Retention of Payment: No payment retention.

<u>Final Payment</u>: Upon final completion and acceptance of the Work in accordance with Paragraph 14.13 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by the ENGINEER as provided in said Paragraph 14.13.

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IN WITNESS WHEREOF, the parties hereto have caused this Instrument to be executed the day and year first above written.

	Contractor
	Ву
(SEAL)	Title
ATTEST:	
TITLE:	
	CITY OF BLUE ISLAND Owner
	Ву
(SEAL)	Title
ATTEST:	
TITLE:	

#### **IMPORTANT**

<u>NOTE</u>: If the Contractor is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation; if Contractor is a co-partnership, the true name of the firm shall be set forth above, together with the signatures of all partners; and if the contractor is an individual, his/her signature shall be placed above. If signature is by an agent other than an officer of a corporation or a member of a partnership, a power-of-attorney must be attached hereto. Signature of Contractor shall also be acknowledged before a Notary Public or other person authorized by law to execute such acknowledgment.

#### PERFORMANCE BOND

#### **SECTION 00 61 13-13**

KNOW ALL MEN BY THESE PRESENTS THAT
(insert the name and address or legal title of the Contractor)
as Principle, hereinafter called Contractor, and
(insert the legal title of Surety)
as Surety, hereinafter called Surety, are held firmly bound unto the (OWNER)
Owner in the full and just sum of
DOLLARS (\$)
lawful money of the UNITED STATES OF AMERICA for the payment of which sum of money well and truly to be made, we bind ourselves, heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:
WHEREAS, the Principal has entered in to a certain written contract, dated the day of
, A.D. 20, with the
for
complete, as described in the foregoing Contract and Articles of Agreement.

NOW THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if the said Principal shall in all respects well and truly keep and perform the said Contract, and shall pay all sums of money due or to become due, for any labor, materials, apparatus, fixtures or equipment furnished for the purpose of constructing the Work provided in said Contract, and shall remove and replace any defects in workmanship or materials which may be apparent or may develop within a period of one (1) year from the Date of Final Acceptance, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

# PERFORMANCE BOND

IN WITNESS WHEREOF, we have, 2		and seals this	day of
		(SEAL)	
		(SEAL)	
	Principal	(SEAL)	
Witness:			
(If Individual or Firm)	-		
Attest:			
(If Corporation)	-		
		(SEAL)	
		(SEAL)	
Attest:			
	-		
(Surety)			

**END OF SECTION** 

#### LABOR AND MATERIAL PAYMENT BOND

#### **SECTION 00 61 13-16**

KNOW ALL MEN BY THESE PRESENTS THAT
(insert the name and address or legal title of the Contractor)
as Principle, hereinafter called Contractor, and
(insert the legal title of Surety)
as Surety, hereinafter called Surety, are held firmly bound unto the (OWNER)
Owner in the full and just sum of
DOLLARS (\$)
lawful money of the UNITED STATES OF AMERICA for the payment of which sum of money well and truly to be made, we bind ourselves, heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:
WHEREAS, the Principal has entered in to a certain written contract, dated the day of, A.D. 20, with the
for
complete, as described in the foregoing Contract and Articles of Agreement.

NOW THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if the said Principal shall in all respects well and truly keep and perform the said Contract, and shall pay all sums of money due or to become due, for any and all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in the Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, and other fuels, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such Work, and all insurance premiums on said Work, and for all labor, performed in such Work whether by subcontractor or otherwise, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

### LABOR AND MATERIAL PAYMENT BOND

IN WITNESS WHEREOF, we have, 2		d seals this	day of
		(SEAL)	
		(SEAL)	
		(SEAL)	
	 Principal	(SEAL)	
Witness:			
(If Individual or Firm)			
Attest:			
(If Corporation)			
		(SEAL)	
		(SEAL)	
Attest:			
(Surety)			

IMPORTANT: Surety companies executing BONDS must be authorized to transact business in the state where the Project is located.

**END OF SECTION** 

#### **CERTIFICATION OF CONTRACTOR RESPONSIBILITY**

### **SECTION 00 62 00**

(To be submitted with Bid)

The following information is hereby submitted. It is understood that this Certificate shall be submitted prior to the initiation of executing the Work of this Contract and prior to or at the time of any change in the personnel assigned as the construction supervisor or safety supervisor. It is further understood that the construction supervisor and the safety supervisor shall be available on a twenty four (24) hour will call basis.

Date:	_ By:	
		(Name and Title)
		PROJECT City Hall Exterior Building Renovation
Construction Supervisor:		Safety Supervisor:
Name		Name
Address		Address
Phone		Phone
E-Mail		E-Mail

**END OF SECTION** 

21-0535.00018 03/20/23 00 62 00-1

# **CLARIFICATION/INTERPRETATION REQUEST**

# **SECTION 00 63 13**

Project:	Date:	
Contractor:	Clarification Request No.:	
Contract:	Re:	
Attn:		
This is a request for a clarification/interpretation on the following:		
Prepared By:	Date Response Needed:	
Response:		
Decrease Draw and Dru		
Response Prepared By:		
Response Returned to Contractor On:		
cc: Owner		

**END OF SECTION** 

# **CHANGE ORDER**

# **SECTION 00 63 63**

	Order No.
	Date:
	Agreement Date:
NAME OF PROJECT:	
OWNER:	
CONTRACTOR:	
CHANGES TO THE CONTRACT DOCUMENTS	S (Describe and/or attach description/justification)
CHANGES TO THE CONTRACT PRICE	
Original CONTRACT PRICE:	\$
Current CONTRACT PRICE adjusted by previou	us CHANGE ORDER: \$
The CONTRACT PRICE due to this CHANGE C	
(Increased) (Decreased) by:	\$
The new CONTRACT PRICE including this CHA	ANGE ORDER will be: \$
CHANGE TO CONTRACT TIME	
The CONTRACT TIME will (not be affected by the (Increased) (Decreased) by calendary	
The date for final completion of all Work shall be	;(Date).
Prepared By CONTRACTOR:	(Date)
Reviewed By ENGINEER:	(Date)
Accepted By OWNER:	(Date)

END OF SECTION

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#### STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

#### **SECTION 00 72 00**

### PART 1- GENERAL

1.01 Engineers Joint Contract Documents Committee 1910-8 (2018 Edition) Standard General Conditions of the Construction Contract shall apply to the Work in this

General Conditions of the Construction Contract shall apply to the Work in this Contract. The specifications referred to herein are those prepared by the Department of Transportation and designated as "Standard Specifications for Road and Bridge Construction" and the "Supplemental Specifications and Recurring Special Provisions"

thereto, adopted and in effect on the date of invitation for bids.

**END OF SECTION** 

21-0535.00018 03/20/23 00 72 00-1

### **SECTION 00 72 23**

### PART 1- GENERAL

#### 1.01 SCOPE

This Section establishes certain minimum requirements of Contractor's responsibilities for which the Contractor shall be fully liable for during the life of the Project and for the Work of this Contract.

# 1.02 RESPONSIBILITY OF CONTRACTOR

#### A. General

The Contractor shall perform all Work of this Contract as specified in a neat and orderly manner, with skilled labor knowledgeable in the applicable trade(s), consistent with recognized work practices as required to perform the Work of this Contract and according to the Work Schedule. The Contractor shall be responsible for coordinating all phases of his/her Work with the work of others so as not to interfere with that work being performed by others. The Contractor shall be responsible for notification(s) prior to commencement of Work and/or during construction activities. The Contractor shall be responsible for providing at the Project Site a qualified construction supervisor or Superintendent.

### B. Work Schedule

Within ten (10) days after receiving the Notice of Award, the Contractor shall submit all items, and information required by Section 01 33 23 to complete the entire Work within the Contract Time stipulated for completion. The Work Schedule shall be subject to the review of the Owner's Representative. If, at any time during the progress of Work, the Owner's Representative is of the opinion that the Contractor is not adhering to such Schedule, the Owner's Representative may request the Contractor to increase his/her force to comply with the Work Schedule. It is the intent of this Contract that the Contractor only remove and replace that portion of any of the roofs which can only be removed and replaced within one working day. Failure of the Owner's Representative to request this shall not release the Contractor from his/her obligation to complete the Work of this Contract within the specified Contract Time.

# C. Supervision and Direction

The Contractor shall supervise and direct the Work. The

Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor shall employ and maintain on the Project a qualified construction supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor or superintendent shall have full authority to act on behalf of the Contractor. All communications given to the supervisor or superintendent shall be as binding as if given to the Contractor. The supervisor or superintendent shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

# D. <u>Safety</u>

The Contractor shall be solely responsible for the safety of persons, property or the Work at or adjacent to the construction site. All decisions relating to safe construction operations, the use and proper application of equipment and materials, and the protection of the general public from construction operations shall be the responsibility of the Contractor. The Contractor shall identify a qualified supervisor or superintendent in writing who shall have the authority to act on behalf of the Contractor relative to Project safety issues. The supervisor or superintendent shall be present on the site at all times as required to maintain safe Project operations.

In the event that the designated construction or safety supervisor or superintendent is absent from the site, the Contractor shall designate a substitute supervisor or superintendent to act in responsible charge of the Work. Any changes in the designated construction supervisor or safety supervisor or superintendent shall be documented by written statement to the Owner and the Owner's Representative at the time of the change.

#### E. Repair of Damaged Items

The Contractor shall be entirely responsible for damages to structures of any kind and shall be liable for damages to public and private property. Repair of same shall be Contractor's responsibility and at Contractor's own expense, except where such items are to be removed and replaced as required by the Contract Documents, and/or as otherwise directed by the Owner's Representative during the course of Work, in which case said replacement unit(s) will be paid for at the Contract unit price, as bid.

# F. Compliance

It shall be the responsibility of the Contractor to familiarize himself/herself and comply with all applicable laws, ordinances, rules, regulations and lawful orders of all public authorities bearing on the safety of persons or property or their protection from damage, injury or loss. Further, the Contractor shall comply with all requirements of these Contract Documents, including but not limited to referenced specifications and/or standards as well as the contents of the Occupational Safety and Health Act (OSHA), all codes and ordinances adopted by and in effect by Federal, State, County, City, and municipal Governmental Bodies, and any other governmental agencies at any level having authoritative jurisdiction over the area of improvement and the type of Work to be performed.

# G. Existing Utilities

The Contractor shall be responsible to make his/her own investigation to determine the existence, nature, and location of all utility lines and appurtenances within the limits of the improvement.

The Contractor shall take due care in all phases of construction to protect any utility which may be affected by the Work of this Contract. Any damages to existing utilities shall be repaired immediately by the Contractor and at the Contractor's own expense.

The Contractor shall be required to cooperate with all utility companies involved in connection with the removal, temporary relocation, reconstruction, or abandonment by these agencies of any and all services or facilities owned or operated by them within the limits of this improvement.

#### H. Assignment of Contract

The Contractor shall be fully responsible for assignments of the Contract, when assignments are made by the Contractor. Furthermore, no part of the Work herein specified shall be assigned (by the Contractor) without the written consent of the Owner, and in no case shall such consent relieve the Contractor or his/her surety from the obligations herein entered into by the same or change the terms of the Contract Agreement.

# I. Discrepancies

The Contractor shall not take advantage of any apparent discrepancies as may be presented by the Contract Documents.

In the event the Contractor discovers any apparent discrepancy, the Contractor shall be responsible for immediately notifying the Owner's Representative in writing for an interpretation and/or decision; and such decision by the Owner's Representative shall be final. Should the Contractor, having knowledge of any such apparent discrepancy, proceed with the Work, such Work and/or related expenses shall be at the Contractor's own risk and cost.

END OF SECTION

#### LIQUIDATED DAMAGES

#### **SECTION 00 73 93**

#### PART 1-LIQUIDATED DAMAGES

In case of failure on the part of the Contractor to meet the Contract Completion Date, or any extensions thereof, as bid under the Bid Form (Section 00 41 00) for Completion of the Work, the Contractor shall be liable and shall pay to the City of Blue Island \$750 for each calendar day that completion is delayed. The owner will deduct these liquidated damages from any monies due or to become due to the Contractor from the City of Blue Island. However, the total amount of liquidated damages to be assessed by the Owner in case of such delays, shall not exceed 10 percent of the original contract price.

In the event that it becomes necessary to terminate the Contractor's right to proceed with the Work under the Contract, such termination shall not relieve the Contractor of any responsibility for liquidated damages as set forth herein. If the Owner so terminates the Contractor's right to proceed, any resulting damage will include, subject to the limitation stated above, such liquidated damages as provided for herein until such reasonable time as may be required for completion of the Work by the Owner.

END OF SECTION

### **SECTION 01 11 00**

#### PART 1- GENERAL

#### 1.00 DESCRIPTION OF WORK

A. <u>General</u>. The Work to be performed consists of furnishing labor, materials, equipment, and supervision as required by the Contract Documents for the **City Hall Exterior Building Renovation** work as required and as herein specified, including any and all accessories associated with the installation. The Contractor shall submit a staged construction schedule so as to provide Owner verification that no portion of any roof cannot be completely removed and replaced in one working day. The Work to be performed is generally summarized to include but not be limited to the following.

#### SECTION A - PITCHED ROOF

# PART 1- GENERAL

#### 1.01 ROOFING

- A. The subject building and required work is:
  - 1. Pitched roof and dormers on the building commonly known as "The 1891 Village Hall" (portion of Cook County pin #24-36-231-011-0000 as shown below). Address: 13050 S. Greenwood Avenue, Blue Island, Illinois 60406-2333.
- B. The project consists of the installation of an asphalt shingle roof commonly known as "GAF Lifetime Roofing System" from which all previous roofing material has been removed down to the deck, and on two new dormers.
- C. The term "roofing contractor" as used herein shall designate the successful bidder to whom the roof contract is awarded, and the terms "roofing contractor" and "contractor" are hereinafter used interchangeably.
- D. The City's Representative shall have general Rights of Inspection of the work and is the agent of the City in all matters pertaining to the work as provided in the Contract Documents. The City's Representative has the authority to stop work whenever such stoppage may be necessary to ensure the proper execution of the contract and shall have authority to reject any and all materials, whether worked or unworked, if such materials are not in accordance with the plans and specifications.

- E. An aerial view showing the scope of this project is attached at the end of these specifications, with the building that is its subject is delineated with a red border.
- F. The roofing contractor shall provide all labor, material, tools, equipment, and supervision necessary to remove the existing membrane down to the roof deck, replace any deteriorated elements of the deck with equal or superior material, and complete the installation per these specifications and drawings.
- G. The bidders shall visit the site before submitting their bids and determine the field conditions affecting their work. In considering the bids, the City will assume that the bidders are aware of all items, pertinent to their work and have made allowance for same in their bids.
- H. The roofing contractor shall confirm all given information and advise the City, prior to bid, of any conflicts that will affect their cost proposal and shall field check and verify all dimensions, grades, lines, levels or other conditions of limitations at the site to avoid construction errors. If any work is performed by the contractor or any of his/her subcontractors prior to adequate verification or applicable data, any resulting extra cost for adjustment of work as required to conform to existing limitations shall be assumed by the contractor without reimbursement or compensation by the City.
- I. Any contractor who intends to submit a bid using a roofing system other than the approved manufacturer must submit for pre-qualification in writing fourteen (14) days prior to the bid date. Any contractor who fails to submit all information as requested will be subject to rejection. Bids stating "as per plans and specs" will be unacceptable.
- J. The Building Official of the City's Building Department shall be the City's Representative.
- K. Unless noted otherwise, the subject of all imperative sentences in the Specifications is the Contractor. For example, "Provide and install . ." means "Contractor shall provide and install . .".
- L. As the City is expecting a 40 year warranty to be delivered at the end of the project, it is the contractors responsibility to be sure that all of the conditions of the warranty requirements are met, whether

they are specified in this document or not.

- M. Schedule and execute work to prevent leaks and excessive traffic on completed roof sections. Care should be exercised to provide protection for the interior of the building and to ensure water does not flow into the building as the work is progressing.
- N. Do not disrupt activities in occupied spaces.

### 1.02 USE OF THE PREMISES

- A. Before beginning work, the roofing contractor must secure approval from the building City's representative for the following:
  - 1. Areas permitted for personnel parking.
  - 2. Access to the site.
  - 3. Areas permitted for storage of materials and debris.
  - 4. Areas permitted for the location of scaffolding, cranes, hoists and chutes for loading and unloading materials to and from the roof.
- B. Interior stairs may not be used for removing debris or delivering materials, except as authorized by the City's representative.

#### 1.03 TEMPORARY FACILITIES AND CONTROLS

- A. Temporary Utilities:
  - 1. Water, power for construction purposes and lighting are available at the site and will be made available to the roofing contractor.
  - 2. Provide all hoses, valves and connections for water from source designated by the City when made available.
  - 3. When available, electrical power should be extended as required from the source. Provide all trailers, connections and fused disconnects.
- B. Temporary Sanitary Facilities. Sanitary facilities will not be available at the job site. The roofing contractor shall be responsible for the provision and maintenance of portable toilets or their equal.

#### 1.04 JOB SITE PROTECTION

A. The roofing contractor shall adequately protect building, paved areas, service drives, lawn, shrubs, trees, etc. from damage while performing the required work. Provide

canvas, boards and sheet metal (properly secured) as necessary for protection and remove protection material at completion. The roofing contractor shall repair or be responsible for costs to repair all property damaged during the roofing application.

- B. During the roofing contractor's performance of the work, the City will continue to occupy the building. The contractor shall take precautions to prevent the spread of dust and debris, particularly where such material may sift into the building. The roofing contractor shall provide labor and materials to construct, maintain and remove necessary temporary enclosures to prevent dust or debris in the construction area(s) from entering the remainder of the building.
- C. Do not overload any portion of the building, either by use of or placement of equipment, storage of debris, or storage of materials.
- D. Protect against fire and flame spread. Maintain proper and adequate fire extinguishers.
- E. Store moisture susceptible materials above ground and protect with waterproof coverings.
- F. Remove all traces of piled bulk materials and return the job site to its original condition upon completion of the work.

### 1.05 SAFETY

The roofing contractor shall be responsible for all means Α. and methods as they relate to safety and shall comply with all applicable local, state and federal requirements safety related. Safety are shall be responsibility of the roofing contractor. All related personnel shall be instructed daily to be mindful of the full time requirement to maintain a safe environment for the facility's occupants including staff and visitors and the occurrence of the general public on or near the site. The roofing contractor shall provide and maintain at all times any danger signs, quards and/or obstructions necessary to protect the public and the workers from any dangers inherent with or created by the work in progress. The roofing contractor shall hold the City harmless from any loss arising due to injury or accident to the public or the contractor's workers, or from theft of materials stored at the job site. All materials will be stored in locations other than on roof surfaces except as necessary and shall then be placed on plywood or other type of

material to protect the roof surface at all times.

### 1.06 INSURANCE REQUIREMENTS

- A. Contractors shall, during the term of the contract with City or any renewal or extension thereof, provide and maintain the types and amounts of insurance set forth. Contractor must provide the following insurance certificate with current issuance date, within ten (10) business days of notification by the City (Faxed/E-mailed certificates are acceptable). All insurance and certificate(s) of insurance shall contain the following provisions:
- B. The awarded contractor shall furnish and keep in full force the following insurance during the term of this Contract:
  - 1. Commercial General Liability minimum \$500,000.00
  - 2. Commercial Automobile Liability minimum \$300,000.00 Combined Single Limit
  - 3. Illinois Workers Compensation
  - 4. Name the City, its officers, agents, representatives, and employees as additional insured as to all applicable coverage with the exception of workers compensation insurance.
  - 5. Waive subrogation against the City.
- C. It is the responsibility of the contractor for coverage not to be cancelled, non-renewed, or materially changed except after 30 days written notice by e-mail or certified letter.

### 1.07 WORKMANSHIP

- A. Applicators installing new roof, flashing and related work shall be factory trained and approved by the manufacturer they are representing.
- B. All work shall be of highest quality and in strict accordance with the manufacturer's published specifications and to the city's satisfaction.
- C. There shall be a supervisor on the job site at all times while work is in progress.
- D. All field seams and flashing details are to be completed according to manufacturer's specifications and details by the end of each work day.

#### PART 2- DESCRIPTION

### 2.01 SECTION INCLUDES

- A. Asphalt roofing shingles.
- B. Leak barrier and roof deck protection.
- C. Metal flashing associated with shingle roofing.
- D. Attic ventilation.

# 2.02 REFERENCES

- A. American Society for Testing and Materials (ASTM) Annual Book of ASTM Standards:
  - 1. ASTM A 653/A 653M Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 2. ASTM B 209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
  - 3. ASTM B 370 Standard Specification for Copper Sheet and Strip for Building Construction.
  - 4. ASTM D 3018 Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules.
  - 5. ASTM D 3161 Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).
  - 6. ASTM D 3462 Standard Specification for Asphalt Shingles Made From Glass Felt and Surfaced with Mineral Granules.
  - 7. ASTM D 4586 Standard Specification for Asphalt Roof Cement, Asbestos-Free.
  - 8. ASTM D 7158 Standard Test Method for Wind-Resistance of Sealed Asphalt Shingles (Uplift Force/Uplift Resistance Method).
  - 9. AC438-1011-R1 New Acceptance Criteria for Alternative Asphalt Roofing Shingles
  - 10. ASTM E 903 Standard Test Method for Solar Absorptance, Reflectance, and Transmission of Materials Using Integrating Spheres.
- B. Underwriters Laboratories (UL) Roofing Systems and Materials Guide (TFWZ.R21).
  - 1. UL 790 Tests for Fire Resistance of Roof Covering Materials.
  - 2. UL 997 Wind Resistance of Prepared Roof Covering Materials.
  - 3. UL 2218 Impact Resistance of Prepared Roof Covering Materials.
- C. Asphalt Roofing Manufacturers Association (ARMA).

- D. Sheet Metal and Air Conditioning Contractors National Association, 1nc. (SMACNA) Architectural Sheet Metal Manual.
- E. National Roofing Contractors Association (NRCA).
- F. American Society of Civil Engineers (ASCE).
  - 1. ASCE 7 Minimum Design Loads for Buildings and Other Structures.
- G. U.S. Green Building Council (USGBC).
- H. Leadership in Energy and Environmental Design (LEED).
- I. ENERGY STAR.
- J. Cool Roof Rating Council (CRRC).

### 2.03 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D1079 and the glossary of the National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual for definitions of roofing terms related to this section.

## 2.04 LEED CERTIFICATION

- A. Provide a roofing system that will achieve or aid in the qualification of points satisfying.
  - 1. Sustainable Site credit 7.2 Heat Island Effect Roof.
  - 2. Materials & Resource credit 5 Local and Regional Materials.

### 2.05 SUBMITTALS

- A. Submit copies of GAF® product data sheets, detail drawings and samples for each type of roofing product.
- B. L.E.E.D. submittal: Coordinate with Section 01115 Green Building Requirements, for LEED certification submittal forms and certification templates.

#### 2.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Provide all primary roofing products, including shingles, underlayment, leak barrier, and ventilation, by a single manufacturer.

B. Installer Qualifications: Installer must be approved for installation of all roofing products to be installed under this section.

# 2.07 REGULATORY REQUIREMENTS

- A. Provide a roofing system achieving an Underwriters Laboratories (UL) Class A fire classification.
- B. Install all roofing products in accordance with all federal, state and local building codes.
- C. All work shall be performed in a manner consistent with current OSHA guidelines.

## 2.08 PREINSTALLATION MEETING

- A. The contractor may request a preinstallation meeting.
- B. Timing: The meeting shall take place at the start of the roofing installation.
- C. Attendees: Meeting to be called for by manufacturer's certified contractor. Meeting's mandatory attendees shall include the certified contractor and the manufacturer's representative. Non-mandatory attendees shall include the owner's representative and the general contractor's representative.
- D. Topics: Certified contractor and manufacturer's representative shall review all pertinent requirements for the project, including but not limited to, scheduling, weather considerations, project duration, and requirements for the specified warranty.

### 2.09 DELIVERY, STORAGE, AND HANDLING

- A. Store all products in manufacturer's unopened, labeled packaging until they are ready for installation.
- B. Store products in a covered, ventilated area, at temperature not more than 110 degrees F (43 degrees C); do not store near steam pipes, radiators, or in direct sunlight.
- C. Store bundles on a flat, properly drained surface. Maximum stacking height shall not exceed GAF®'s recommendations. Store all rolls on end.
- D. Store and dispose of solvent-based materials in accordance with all federal, state and local regulations.

# 2.10 WEATHER CONDITIONS

A. Proceed with work only when existing and forecasted weather conditions will permit work to be performed in accordance with GAF®'s recommendations.

### 2.11 WARRANTY

- A. Provide to the owner a GAF® All American Pledge $^{\text{\tiny TM}}$  Guarantee:
  - 1. Provide to the owner a GAF® WeatherStopper® Golden Pledge® Ltd Warranty for the Steep Slope System covering:
    - a. Roofs installed by a Certified GAF® Master Elite  $^{\text{\tiny{TM}}}$  Contractor only.
      - i. Manufacturing defects: 100% coverage for materials and labor for 40 years with the first 20 years non- prorated. (excludes Marquis WeatherMax and Royal Sovereign)
      - ii. Workmanship errors: 100% coverage for workmanship errors for 20 years.
  - 2. Roof system is NOT to be installed over an existing roof; all existing roof materials must be removed to the deck.
  - 3. Warranted against algae discoloration for 10 years
  - 4. Provide Manufacturers standard WeatherStopper® Diamond Pledge $^{\text{TM}}$  Guarantee for the Low Slop system covering:
    - a. Single source Edge-to-Edge coverage and no monetary limitation, where the manufacturer agrees to repair or replace components in the roofing system and pre-approved metal edge details, which cause a leak due to a failure in materials or workmanship.
      - i. Duration: (20) Twenty years from the date of completion

# PART 3- PRODUCTS

# 3.01 MANUFACTURER

A. Acceptable Manufacturer: GAF®,1 Campus Drive, Parsippany, NJ 07054. Tel: 1-973-628-3000.

B. Requests for substitutions will be considered in accordance with provisions of Section 01 33 16.

### 3.02 SHINGLES

- UL 2218, Class 4, granule surfaced self-sealing asphalt shingle with a strong fiberglass reinforced Micro Weave core and StainGuard protection, which prevents pronounced discoloration from blue-green alqae formulation/unique blends of granules. Architectural laminate styling provides a wood shake appearance with a 5 5/8in. exposure. UL 790 Class A rated with UL 997 Wind Resistance Label; ASTM D 7158, Class H; ASTM D 3161, Type 1; ASTM D 3018, Type 1; Passes UL 2218, Class 4 Impact Test; ASTM D 3462; AC438 compliant; Dade County Approved, Florida Building Code Approved, Texas Dept of Insurance Approved, ICC Report Approval. Timberline® ArmorShield™ II Shingles, by GAF®.
  - 1. Color: As selected from manufacturers' full range.
  - 2. Color: To be chosen by Owner during shop drawing review.

### 3.03 HIP AND RIDGE SHINGLES

- A. High profile self sealing hip and ridge cap shingle matching the color of selected roof shingle. Each bundle covers approx. 20 lineal feet (6.10m). <u>Timbertex®</u> Premium Ridge Cap Shingles, by GAF®.
- B. Distinctive self sealing hip and ridge cap shingle complementing the color of selected roof shingle. Each bundle covers approx. 31 lineal feet (9.45m) with an 8 inch (203mm) exposure. **Ridglass™ 10**″ Ridge Cap Shingles by GAF®.
- C. Distinctive self sealing hip and ridge cap shingle complementing the color of selected roof shingle. Each bundle covers approx. 31 lineal feet (9.45m) with an 8 inch (203mm) exposure Ridglass™ 8" Ridge Cap Shingles by GAF®.
- D. Distinctive self sealing hip and ridge cap shingle complementing the color of selected roof shingle. Each bundle covers approx. 25 lineal feet (7.62mm) with a 6 2/3 inch (169mm) exposure. **Seal-A-Ridge®** Ridge Cap Shingles by GAF®.
- E. Distinctive hip and ridge cap shingle complementing the color of selected roof shingle. Each bundle covers approx. 33.3 lineal feet (10.15m) with a 5 5/8 inch

(147mm) exposure. **Z® Ridge** Shingles by GAF®.

F. UL 2218, Class 4, self sealing hip and ridge cap shingle complementing the color of selected roof shingle. Each bundle covers approx. 25 lineal feet (7.62mm) with a 6 2/3 inch (169mm) exposure. Seal-A-Ridge® ArmorShield™ II Ridge Cap Shingles by GAF®.

# 3.04 STARTER STRIP

- A. Self sealing starter shingle designed for premium roof shingles. Each bundle covers approx. 100 lineal feet (30.48m) for English and metric shingles or 50 lineal feet (15.24m) for oversized shingles. WeatherBlocker™ Eave/Rake Starter Strip by GAF®.
- B. Self sealing starter shingle designed for all roof shingles. Each bundle covers approx. 120 lineal feet (36.58m). **ProStart™** Starter Strip by GAF®.
- C. Pre-cut, color coordinated starter strip shingle designed as a second starter course for shingles with large cut-outs. Each bundle covers approx.. 60 lineal feet (18.29 m) StarterMatch™ Starter Strip by GAF®.

#### 3.05 LEAK BARRIER

- A. Self-adhering, self-sealing, bituminous leak barrier surfaced with fine, skid-resistant granules. Approved by UL, Dade County, ICC, State of Florida and Texas Department of Insurance. Each roll contains approx. 150 sq ft (13.9 sq.m.), 36" X 50' (0.9m x 20.3m) or 200 sq ft (18.6 sq.m.), 36" X 66.7' (0.9m x 20.3m). WeatherWatch® Leak Barrier, by GAF®.
- B. Self-adhering, self-sealing, bituminous leak barrier surfaced with a smooth polyethylene film. Approved by UL, Dade County, ICC, State of Florida and Texas Department of Insurance. Each Roll contains approx. 200 sq ft. (18.6 sq.m.), 36" X 66.7' (0.9m x 20.3m), and 60 mils thick. StormGuard® Leak Barrier, by GAF®.

### 3.06 SHINGLE UNDERLAYMENT

A. Premium, water repellant, breather type non-asphaltic underlayment. UV stabilized polypropylene construction. Meets or exceeds ASTM D226 and D4869. Approved by Dade Country, Florida Building Code, and ICC. Each roll contains approximately 10 squares (1003 sq. ft.) of material and is 54 in. x 223 ft. **Deck-Armor™** Premium Breathable Roof Deck Protection, by GAF®.

- B. Synthetic, non-asphaltic, non-woven, anti-skid back coated, polypropylene constructed non breathable underlayment. Meets or exceeds ASTM D226 and D4869 approved by UL, Florida Building Code, ICC and CSA A220.1. Each roll contains approximately 10 squares (1000 gross sq. ft.) of material and is 48 in. x 250 ft. (14.6 m x 76.2 m), Tiger-Paw™ Roof Deck Protection by GAF®.
- C. Water repellent, breather type cellulose/glass fiber composite roofing underlayment. Meets or exceed ASTM D226 and D4869 and approved by UL and the Florida Building Code. Each roll contains approximately 4 squares (432 sq. ft.) of material and is 36" x 144" Shingle-Mate® Roof Deck Protection, by GAF®.
- D. Premium, all-purpose fiberglass reinforced SBS modified underlayment. Meets or exceeds ASTM D226. Approved by UL and ICC. Each roll contains 2 squares (20.06 sqm.) of material and is 39.37 in. x 65.8 ft. (1m x 20m), Roof Pro<sup>TM</sup> SBS Modified All-Purpose Underlayment by GAF®.
- E. Non-woven fiberglass mat underlayment coated on both sides suing a highly filled polymer. Provides a fire barrier and water resistant. Approved by Dade Country, Florida Building Code, and ICC approval. Each roll contains 350 gross sq ft (32.52 m²) of material and is 42 in. x 100 ft. (1.07 m x 30.48 m) **VersaShield®** Fire-Resistant Roof Deck Protection by GAF®.
- F. #15 Roofing Underlayment By Others: Water repellent breather type cellulose fiber building paper. Meets or exceeds the requirements of ASTM D-4869 Type I.
- G. #30 Roofing Underlayment By Others: Water repellent breather type cellulose fiber building paper. Meets or exceeds the requirements of ASTM D-4869 Type II.

#### 3.07 ROOFING CEMENT

A. Asphalt Plastic Roofing Cement meeting the requirements of ASTM D 4586, Type I or II.

#### 3.08 ROOF ACCESSORIES

A. UV stable solid molded PVC compression collar, Kynar PVDF coated 24 guage galvanized flange, **Ultimate Pipe Flashing** by Lifetime Tool.

# 3.09 ATTIC VENTILATION

A. Roof Louver - Rooftop mounted, slant-back designed, high-

impact resin exhaust ventilator designed to evacuate hot air from attics. Each vent provides 65 sq in NFVA. MasterFlow IR65 Passive Roof Louver, by GAF®.

## 3.10 NAILS

A. Standard round wire, zinc-coated steel or aluminum; 10 to 12 gauge, smooth, barbed or deformed shank, with heads 3/8 inch (9mm) to 7/16 inch (11mm) in diameter. Length must be sufficient to penetrate into solid wood at least 3/4 inch (19mm) or through plywood or oriented strand board by at least 1/8 inch (3.18mm).

# 3.11 METAL FLASHING

A. 24 gauge hot-dip galvanized steel sheet, complying with ASTM A 653/A 653M, G90/Z275.

### PART 4- EXECUTION

### 4.01 EXAMINATION

A. Do not begin installation until the roof deck has been properly prepared. Start of work assumes that the Contractor accepts the roofing deck in acceptable condition.

#### 4.02 PREPARATION

- A. Remove all existing roofing down to the roof deck.
- B. Verify that the deck is dry, sound, clean and smooth. It shall be free of any depressions, waves, and projections.
- C. Cover with sheet metal, all holes over 1 inch (25mm) in diameter, cracks over 1/2 inch (12mm) in width, loose knots and excessively resinous areas.
- D. Replace damaged deck with new materials.
- E. Clean deck surfaces thoroughly prior to installation of eaves protection membrane and underlayment.

# 4.03 PREPARATION OF SUBSTRATE

- A. Clean deck surfaces thoroughly prior to installation of eaves protection membrane and underlayment.
- B. At areas that receive eaves protection membrane, fill knotholes and cracks with latex filler.

C. Install crickets on the upslope side of all chimneys in the north, any chimney wider than 24'' (610mm), and on all roofs steeper than 6/12.

## 4.04 PREPARATION

- A. Verify that the deck is structurally sound and free of deteriorated decking. All deteriorated decking shall be removed and replaced with new materials.
- B. Verify that the existing shingles are dry, sound, clean and smooth. All curled, buckled or loose tabs shall be nailed down or removed.
- C. Clean shingle surfaces thoroughly prior to installation of eaves protection membrane and underlayment.

# 4.05 INSTALLATION OF UNDERLAYMENTS

#### A. General:

1. Install using methods recommended by GAF®, in accordance with local building codes. When local codes and application instructions are in conflict, the more stringent requirements shall take precedence.

#### B. Eaves:

- 1. Install eaves edge metal flashing tight with fascia boards; lap joints 2 inches (51mm) and seal with plastic cement or high quality urethane sealant; nail at the top of the flange.
- 2. In the north, and on all roofs between 2/12 and 4/12 (low slopes) install GAF® leak barrier up the slope from eaves edge a full 36 inches (914mm) or to at least 24 inches (610 mm) beyond the interior "warm wall". Lap ends 6 inches (152mm) and bond.

#### C. Valleys:

- 1. Install eaves protection membrane at least 36 (914mm) inches wide and centered on the valley. Lap ends 6 inches (152mm) and seal.
- 2. Where valleys are indicated to be "open valleys", install metal flashing over GAF® leak barrier before GAF® roof deck protection is installed; DO NOT nail through the flashing. Secure the flashing by nailing at 18 inches (457 mm) on center just beyond edge of flashing so that nail heads hold down the edge.

### D. Hips and Ridges:

1. Install GAF® leak barrier along entire lengths. If ridge vents are to be installed, position the GAF® leak barrier so that the ridge slots will not be covered.

#### E. Roof Deck Protection:

- 1. Install one layer of GAF® roof deck protection over the entire area not protected by GAF® leak barrier at the eaves or valley. Install sheets horizontally so water sheds and nail in place.
- 2. On roofs sloped at more than 4:12, lap horizontal edges at least 2 inches (51mm) and at least 2 inches (51mm) over eaves protection membrane.
- 3. Lap ends at least 4 inches (102 mm). Stagger end laps of each layer at least 36 inches (914 mm).
- 4. Lap GAF® roof deck protection over GAF® leak barrier in valley at least 6 inches (152mm).

### F. Deck-Armor™ Application

- 1. Deck-Armor shall be installed over a clean, dry deck.
- 2. Install Weather Watch® or StormGuard® Leak Barrier at eaves, valleys, rakes, skylights, dormers and other vulnerable leak areas.
- 3. Lay Deck-Armor<sup>TM</sup> over deck and overlap 3" (76mm) at side laps and 6" (152mm) at end laps.
- 4. For exposure to rain or snow, overlap 12" (305mm) at end laps.
- 5. For side and end laps: fasten Deck-Armor 12" (305mm) o.c. (6" (152mm) o.c. for high wind areas).
- 6. For middle of the roll: fasten Deck-Armor 24" (610mm) o.c. (12" (305mm) o.c. for high wind areas).
- 7. For exposure to rail or snow, completely cover all side laps, end laps and fasteners with tape.
- 8. For long term exposure see complete Deck-Armor installation instructions for side lap detail.
- 9. If roof may be exposed to high winds, apply tape over all fasteners at the center of the roll to prevent rain or snow from entering at the fasteners.
- 10. For slopes less that 2:12, a double application of  $Deck-Armor^{TM}$  is required. See complete Deck-Armor installation instructions for more information.

#### G. Penetrations:

1. Vent pipes: Install a 24 inch (610 mm) square piece of eaves protection membrane lapping over roof deck

- underlayment; seal tightly to pipe.
- 2. Vertical walls: Install eaves protection membrane extending at least 6 inches (152mm) up the wall and 12 inches (305mm) on to the roof surface. Lap the membrane over the roof deck underlayment.
- 3. Skylights and roof hatches: Install eaves protection membrane from under the built-in counterflashing and 12 inches (305mm) on to the roof surface lapping over roof deck underlayment.
- 4. Chimneys: Install eaves protection membrane around entire chimney extending at least 6 inches (152mm) up the wall and 12 inches (305mm) on to the roof surface. Lap the membrane over the roof deck underlayment.
- 5. Rake Edges: Install metal edge flashing over eaves protection membrane and roof deck underlayment; set tight to rake boards; lap joints at least 2 inches (51mm) and seal with plastic cement; secure with nails.

# 4.06 INSTALLATION OF STARTER SHINGLES

#### A. General:

- 1. Install in accordance with GAF®'s instructions and local building codes. When local codes and application instructions are in conflict, the more stringent requirements shall take precedence.
- 2. Refer to application instructions for the selected starter strip shingles.

#### B. Placement and Nailing:

- 1. For maximum wind resistance along rakes & eaves, install any GAF® starter strip containing sealant or cement shingles to underlayment and each other in a 4" (102mm) width of asphalt plastic roof cement.
- 2. Place starter strip shingles 1/4" 3/4" (6 19mm) over eave and rake edges to provide drip edge.
- 3. Nail approximately 1-1/2" 3" (38 76mm) above the butt edge of the shingle.
- 4. Rake starter course should overlap eave edge starter strip at least 3" (76mm).

### 4.07 INSTALLATION OF SHINGLES

#### A. General:

1. Install in accordance with GAF®'s instructions and local building codes. When local codes and application instructions are in conflict, the more

- stringent requirements shall take precedence.
- 2. Minimize breakage of shingles by avoiding dropping bundles on edge, by separating shingles carefully (not by "breaking" over ridge or bundles), and by taking extra precautions in temperatures below 40 degrees F (4 degrees C).
- 3. Handle carefully in hot weather to avoid scuffing the surfacing, or damaging the shingle edges.

### B. Placement and Nailing:

- 1. Secure with 4, 5, or 6 nails per shingle per GAF®'s application instructions or local codes.
- 2. Placement of nails varies based on the type of shingle specified. Consult the application instructions for the specified shingle for details.
- 3. Nails must be driven flush with the shingle surface. Do not overdrive or under drive the nails.
- 4. Shingle offset varies based on the type of shingle specified. Consult the application instructions for the specified shingle for details.

### C. Placement and Nailing:

- 1. Beginning with the starter strip, trim shingles so that they "nest" within the shingle located beneath it. This procedure will yield a first course that is typically 3 inch (76mm) to 4 inch (102mm) rather than a fully exposed shingle.
- 2. Laterally, offset the new shingles from the existing keyways, to avoid waves or depressions caused by excessive dips in the roofing materials.
- 3. Using the bottom of the tab on existing shingles, align subsequent courses.
- 4. \*Note: DO NOT install standard sized shingles (5inch exposure) over metric (5 5/8 inch exposure) shingles, as it will overexpose the shingles and reveal the nails. Use standard alignment methods to assure proper shingle placement.
- 5. Secure with 4, 5, or 6 nails per shingle per GAF®'s instructions or local codes.
- 6. Placement of nails varies based on the type of shingle specified. Consult the application instructions for the specified shingle for details.
- 7. Nails must be driven flush with the shingle surface. Do not overdrive or under drive the nails.
- 8. Shingle offset varies based on the type of shingle specified. Consult the application instructions for the specified shingle for details.

#### D. Valleys

- 1. Install valleys using the "open valley" method:
  - a. Snap diverging chalk lines on the metal flashing, starting at 3 inches (76mm) each side of top of valley, spreading at 1/8 inch per foot (9mm per meter) to the eaves.
  - b. Run shingles to chalk line.
  - c. Trim last shingle in each course to match the chalk line; do not trim shingles to less than 12 inches (305mm) wide.
  - d. Apply a 2 inch (51mm) wide strip of plastic cement under ends of shingles, sealing them to the metal flashing.
- 2. Install valleys using the "closed cut valley" method:
  - a. Run the first course of shingles from the higher roof slope across the valley at least 12 inches (305mm).
  - b. Run succeeding courses of shingles from the lower roof slope across the valley at least 12 inches (305mm) and nail not closer than 6 inches (152mm) to center of valley.
  - c. Run shingles from the upper roof slope into the valley and trim 2 inches (51mm) from the center line.

#### E. Penetrations

1. All Penetrations are to be flashed according to GAF®, ARMA and NRCA application instructions and construction details.

### 4.08 INSTALLATION OF ATTIC VENTILATION

#### A. General

1. Ventilation must meet or exceed current F.H.A., H.U.D. and local code requirements.

### B. Roof Louvers:

- 1. Cut vent hole through sheathing as specified by the manufacturer for the type of vent to be installed.
- 2. Install a 24 inches (610mm) square of leak barrier, centered around the hole for roof louvers
- 3. Install according to manufacturers instructions for flashing vent penetrations

- 4. Install eave vents in sufficient quantity to equal or exceed the exhaust vent area, calculated as specified by manufacturer.
- C. Powered (& Solar Powered) Ventilators & Roof turbines:
  - 1. Cut vent hole through sheathing as specified by the manufacturer for the type of vent to be installed.
  - 2. On rooftop applications, install a 36 inches (914mm) square of leak barrier, centered around the hole
  - 3. Install according to manufacturers instructions for flashing vent penetrations
  - 4. Install eave vents in sufficient quantity to equal or exceed the exhaust vent area, calculated as specified by manufacturer.
- D. Hip Vents and Rooftop Vents:
  - 1. Install according to manufacturer's instructions.
  - 2. Install vents in sufficient quantity to equal or exceed the exhaust vent area, calculated as specified by manufacturer.

# 4.09 PROTECTION

- A. Protect installed products from foot traffic until completion of the project.
- B. Any roof areas that are not completed by the end of the workday are to be protected from moisture and contaminants.

# PART 5- CLEAN UP

- A. All work areas are to be kept clean, clear and free of debris at all times.
- B. Do not allow trash, waste, or debris to collect on the roof. These items shall be removed from the roof on a daily basis.
- C. All tools and unused materials must be collected at the end of each workday and stored properly off of the finished roof surface and protected from exposure to the elements.
- D. Dispose of or recycle all trash and excess material in a manner conforming to current EPA regulations and local laws.

- E. Properly clean the finished roof surface after completion, and make sure the drains and gutters are not clogged.
- F. Clean and restore all damaged surfaces to their original condition.

# PART 6- CONTRACT CLOSEOUT

# 6.01 SUMMARY

- A. The following are prerequisites to substantial completion. Provide the following:
  - 1. Completed punch list and supporting documentation.
  - 2. Signed warranties.
  - 3. Certifications as specified.
  - 4. Occupancy permit from governing agencies as required.
- B. Provide the following prior to final acceptance:
  - 1. Final payment request with supporting affidavits.
  - 2. Completed punch list and supporting documentation.
- C. Provide sets of record drawings showing original design and all changes made during construction.
- D. Provide the following closeout procedures:
  - 1. Submit record documents.
  - 2. Submit maintenance manuals.
  - 3. Complete all repairs, call-backs, corrections, readjustments of equipment, final cleaning, and final touch-up. Remove all temporary facilities, equipment, tools and supplies.

#### PART 7- MEASUREMENT AND PAYMENT

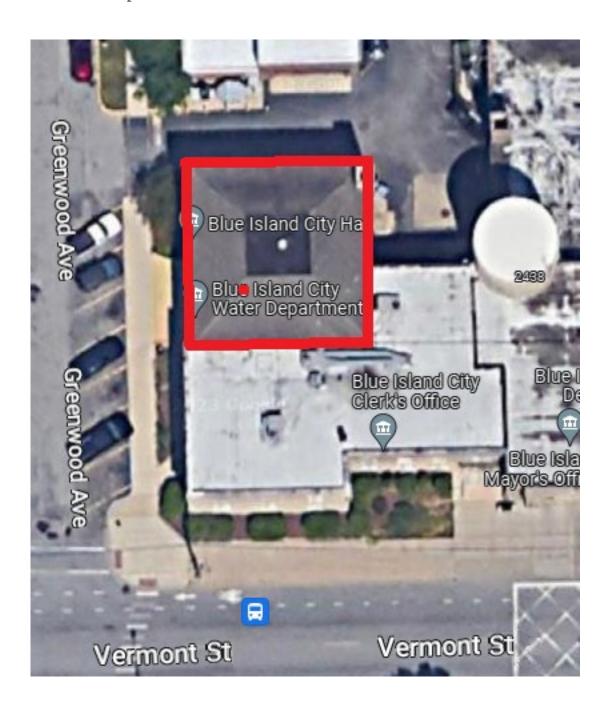
### 7.01 MEASUREMENT

Measurement will not be made for the Work specified in this Section.

### 7.02 PAYMENT

A. Payment for the Work specified in this Section will be made at the lump sum prices for the below listed Items, in the Schedule of Prices:

- Remove and Replace Existing Shingled 01 11 00/01, Roofing Material on 1891 City Hall
- These prices shall be full compensation for furnishing В. all materials, equipment and labor as well as any and all incidentals necessary to complete the Items of Work to provide a complete and operational system.
- С. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices bid for the various items to which they pertain in the Schedule of Prices.



# SECTION B - DORMERS

#### PART 1- GENERAL

## 1.01 ROOFING

- A. The work described is to be executed on the building commonly known as "The 1891 Village Hall" (portion of Cook County pin #24-36-231-011-0000 as shown below). Address: 13051 S. Greenwood Avenue, Blue Island, Illinois 60406-2333.
- B. The Work includes all construction materials, labor, equipment, and services required by the Drawings, Specifications, and related Contract Documents. This includes labor, materials, etc. even if not explicitly required in the documents, as required to complete the project and provide for project safety and security.
- C. The project work shall comply with all applicable federal, state, county and/or city regulations. All building permits and other permits and approvals shall be obtained as required before starting work.
- D. Substitution of any specified item is not permitted except through written request and written approval by the Building Official of the City of Blue Island (hereinafter "Building Official"). The Contractor's request must provide all specification data and certification that the substitution meets all requirements of the originally specified item. Any cost savings from an accepted substitution shall be shared equally by the Contractor and the City.
- E. The Building Official of the City's Building Department shall be the City's Representative.

#### 1.02 CITY'S RIGHTS AND RESPONSIBILITIES

- A. The accuracy of the information provided by the City is not guaranteed by the City and the Contractor is responsible for verifying actual site dimensions and field conditions.
- B. If the Contractor fails to complete or correct any of the Work according to the Construction Documents the City may stop work until the work is completed or corrected.
- C. The City reserves the right to occupy portions of the building space as work proceeds. If such occupancy interferes with the work, a negotiated fee or credit will

be provided to the Contractor by the City and the required date of completion will be adjusted accordingly.

## 1.03 CONTRACTOR RIGHTS AND RESPONSIBILITIES

- A. The Contractor shall have complete responsibility for, and control over, construction methods, techniques, procedures and project safety and security.
- B. Any stated observation of possible safety or security hazards offered by the City in no way relieves the contractor of full responsibility for such conditions.
- C. The Contractor shall promptly pay for all labor, equipment, materials and services required to complete the Work as described in the Construction Agreement.
- D. The Contractor shall be held responsible for all damages caused by his employees or subcontractors. The Contractor shall be held responsible for all errors, omissions, negligence, non-compliance with drawings and specifications, or uncorrected work by employees, suppliers, fabricators, and subcontractors.
- E. The Contractor shall hold harmless the City from and against all claims, damages, losses, expenses, legal fees or other costs resulting from the Contractor's performance of the Work of the Construction Agreement.
- F. The Contractor shall provide free access to the work by the City and their representatives at all times.

### 1.04 SAFETY

The contractor shall be responsible for all means and Α. methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. All related personnel shall be instructed daily to be mindful of the full time requirement to maintain a safe environment for the facility's occupants including staff and visitors and the occurrence of the general public on or near the site. The contractor shall provide and maintain at all times any danger signs, guards and/or obstructions necessary to protect the public and the workers from any dangers inherent with or created by the work in progress. The contractor shall hold the City harmless from any loss arising due to injury or accident to the public or the contractor's workers, or from theft of materials stored at the job site. All materials will be stored in locations other than on roof surfaces except as necessary

and shall then be placed on plywood or other type of material to protect the roof surface at all times.

## 1.05 SUBCONTRACTORS

- A. The Contractor's choice of subcontractors, suppliers, and fabricators shall be as approved by the City.
- B. The Contractor may not be required to use a specific subcontractor, fabricator, or supplier if there is an explicit reason not to that is confirmed by the City.

# 1.06 WORK BY OTHER CONTRACTORS

A. The Contractor and all subcontractors shall work in full cooperation on the project. This includes reasonable provision for storage and protection of City's, Contractor's, and subcontractor's materials and equipment.

### 1.07 CHANGES

A. Revisions, additions, or deletions to the Work under this agreement will be made by written order signed by the City's representative and Contractor. Such changes will not alter the remainder of this Agreement. If the revisions, additions, or deletions to the work affect the time and cost of project delivery, the Agreement will be amended accordingly.

#### 1.08 TIME

A. If Work in this agreement is delayed by City-requested changes, delays in required approvals, labor disputes, fire, severe weather, or other conditions over which the Contractor has no control, the time for completion shall be extended accordingly and amended in writing in the Contract.

### 1.09 DISPUTES

A. Claims or disputes between the Contractor and the City arising from this Agreement that are not settled through negotiation shall be offered for mediation according to the rules of the American Arbitration Association. Disagreements not settled by mediation shall be offered for arbitration as per the rules of the American Arbitration Association. Work shall not be halted or slowed by the Contractor during negotiation, mediation, or arbitration of such disputes.

# 1.10 PAYMENTS

- A. Payments will be made to the Contractor by the City according to the schedule in the Agreement.
- B. Payments may be withheld because of:
  - 1. Defective or nonconforming work not corrected.
  - 2. Failure of the Contractor to make payments to subcontractors, suppliers, labor, or for services.
  - 3. Failure to perform the Work according to the terms and conditions of this Agreement.
  - 4. Legal or other claims by third parties related to the work of this Agreement.
- C. Final payment shall be due when the Work is completed according to the Construction Documents and as stipulated in the Agreement between City and Contractor.

## 1.11 INSURANCE

- A. The Contractor shall furnish the City the following certificates of insurance as noted. The insurance amounts shall be as indicated or for larger amounts as required by law.
  - 1. Workers' Compensation Insurance for at least \$500,000 each occurrence and \$500,000 total for Bodily Injury including Personal Injury.
  - 2. Property Damage for at least \$100,000.
  - 3. Comprehensive Automobile Liability for at least \$250,000 for each person, \$500,000 each occurrence, and Property Damage for at least \$100,000 for each accident.
- B. The City shall maintain property insurance in the full amount of insurable value. The insurance shall include the interests of the bank, or other mortgage holder, if any, and the City shall insure against "all risks" of physical loss or damage.

# 1.12 TERMINATION OF THE AGREEMENT

A. The City is required to provide prompt payments to the Contractor. If payment is not forthcoming, through no fault of the Contractor, the Contractor may terminate the contract, after seven (7) days written notice to the City.

## 1.13 JURISDICTION

A. This agreement shall be enforced according to the laws of the jurisdiction of the project.

## PART 2- SCHEDULE OF VALUES

### 2.01 SUMMARY

- A. Provide a detailed breakdown of the Contract Sum as a Schedule of Values that is allocated to each part of the Work.
- B. Before submitting the first application for payment, submit a proposed Schedule of Values to the City.
- C. Provide copies of subcontracts and other data acceptable to the City to substantiate the sums described.

## PART 3- DESCRIPTION OF WORK

### 3.01 DESCRIPTION OF WORK

- A. Provide wood framing and finish carpentry as shown on the drawings and as specified herein to rebuild (2) dormers. If required, strip the existing roofing material down to the deck where the two dormers will be built in areas large enough to site the two dormers and to provide safe working conditions and setup for the workers.
- B. Where additional instruction is required, work shall be as directed by the designer.
- C. Work includes all lumber, connectors, and related hardware and materials.

#### 3.02 SUBMITTALS

- A. Provide all tests, certificates, and affidavits necessary to verify materials are as specified in:
  - 1. Species and grades.

# 3.03 QUALITY STANDARDS AND TOLERANCES

- A. Provide a work force that is:
  - 1. Sufficient in number for the work load and time schedule.
  - 2. Capable of handling any special heavy-duty or highlift operations.

- 3. Skilled, trained, experienced, and competent to do the work as specified.
- B. Unless otherwise directed, all work shall be as per building code and:
  - 1. Manual for Wood Frame Construction, American Forest and Paper Association (N FPA).
  - 2. National Design Specifications for Wood Construction of the NFPA.
  - 3. Plywood Specifications and Grade guide of the American Plywood Association.

#### C. Tolerances:

- 1. Vertical framing shall be plumb within 1/4" per 10 linear feet.
- 2. Horizontal framing shall be level within 1/4" per 10 linear feet.

#### D. Moisture contents and tests:

- 1. Moisture content of framing lumber shall be 19% or less by weight.
- 2. Tests will be conducted on all newly shipped lumber to confirm moisture content.
- 3. Kiln-dried or other lumber requiring lower moisture content shall be as specified.

#### E. Grading:

- 1. Do not accept or use wood panels that deviate from grade standards or have excessive:
  - Marred surfaces
  - Cracks
  - Defective patches
  - Loose knots
  - Split edges
  - Delaminations

#### 3.04 MATERIALS HANDLING AND STORAGE

- A. Store materials to avoid water damage and store rolled goods on end. Comply with manufacturer's recommendations for job-site storage and protection.
- B. Delivery and inspection:
  - 1. Reject any delivered framing lumber that is not

- grade-stamped.
- 2. Verify that delivered lumber is grade certified by a bona fide grading agency.
- 3. Identify framing lumber by grade, and store each grade separately.
- 4. Do not accept or use lumber that deviates from grade standards or has excessive:
  - Moisture content
  - Loose knots
  - Decay streaks
  - Rot
  - Insect damage
  - Splits
  - Pitch pockets
  - Wanes
  - Crooks
  - Warps
  - Twists
  - Bends
- 5. Do not accept or use wood panels that deviate from grade standards or have excessive:
  - Marred surfaces
  - Cracks
  - Defective patches
  - Loose knots
  - Split edges
  - Delaminations
- 6. Remove unstamped or defective lumber from the job site.

#### C. Handling:

- 1. Handle lumber to avoid damage during transport, unloading, and moving on the job site.
- 2. Reject and replace lumber that is damaged and made unusable in off-loading during delivery.
- 3. Handle chemically treated lumber and panels strictly according to manufacturers' instructions.

## F. Storage:

1. Store framing lumber and wood panels to prevent damage and moisture absorption:

- Well supported off the ground.
- Protected from weather.
- Away from traffic.
- Protected from all sources of water.
- Neatly stacked to prevent warping.
- Stacked with cross pieces for ventilation.
- Shored and with level support to prevent leaning or toppling.
- Store metal connectors that are subject to damage:
- In safe locations away from traffic or other sources of damage.
- In weathertight wrapping.
- Store chemically treated lumber and wood panels outdoors until installation.
- Keep chemically treated lumber and wood panels well ventilated if stored indoors.

# PART 4- MATERIALS

### 4.01 FASTENERS, CONNECTORS, AND SUPPORTS

#### A. Nails:

- 1. Follow all nail size requirements and nail spacings required by the governing building code.
- 2. Use hot-dip galvanized steel nails at exterior work, areas of high humidity or at treated wood.
- 3. Nails into redwood or cedar shall be of stainless steel. 4d box shall be long enough to penetrate sheathing 1/2 inch for cedar shingles
- 4. Plain finish materials may be used at interior and dry locations.
- 5. Electro-galvanized nails shall not be used on exterior surfaces.
- 6. Electro-galvanized nails shall not be used where corrosive staining might mar wood surfaces.
- 7. Aluminum nails for exterior work may be used at Contractor's discretion.
- B. Power-driven nailing: Comply with standards of the International Staple, Nail and Tool Association.

#### C. Bolts:

- 1. Machine bolts to comply with ASTM A307.
- 2. Lag bolts to comply with Federal Spec FF-N-1.
- 3. Drill holes 1/16" larger than bolt diameters.
- 4. Drill straight through from only one side.

- 5. Use washers under all nuts.
- 6. Do not bear bolt heads on wood; use washers.
- D. Hangers, connectors, and crossbridging:
  - 1. Use Galvanized steel Simpson Strong-Tie Joist Hangers or equivalent, sized to suit framing.
  - 2. Metal framing connectors.
  - 3. Metal crossbridging.

### 4.02 LUMBER

- A. For all framing:
  - 1. #2 grade or better Kiln-dried Douglas fir or equivalent. Dry unless otherwise indicated, grade marked complying with the following:
  - 2. No Utility grade.
- B. Sill boards: Pressure treated or redwood sill grade.
- C. Lumber for miscellaneous applications shall be Standard grade unless noted otherwise for:
  - 1. Nailers
  - 2. Blocking
  - 3. Furring

## 4.03 SHEATHING

A. ½ inch CDX plywood.

## 4.04 FLASHING

A. Roof flashings to be at least 26-gauge, corrosion resistant sheet metal, and preferably painted galvanized steel or painted aluminum.

### 4.05 WOOD SHINGLES FOR WALLS

A. No. 1 sawn and kiln-dried western red cedar shingles, 18" length.

# 4.06 UNDERLAYMENT FOR CHEEK WALLS

A. Underlayment: DuPont $^{\text{\tiny{TM}}}$  Tyvek $^{\text{\tiny{M}}}$  DrainWrap $^{\text{\tiny{TM}}}$  fType I or II. Or equivalent.

## 4.07 ICE BARRIER FOR CHEEK WALLS

A. Grace Ice and Water Shield or equivalent.

# PART 5- PREPARATION AND PRECONSTRUCTION

#### 5.01 GENERAL

- A. Clean substrate of any projections and substances detrimental to the work.
- B. While the dormers are being built and until the roofing for them is completed, provide protection for the building from leaks from water, animal infestation, etc.
- C. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with roofing nails.
- D. Coordinate installation of shingles with flashing and other adjoining work to ensure proper sequencing.

# PART 6- INSTALLATION

## 6.01 PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the roofing installation and associated work, conduct a meeting at the project site with the contractor, Building Official, and any other persons directly involved with the performance of the work. The contractor shall record conference discussions to include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party. The main purpose of this meeting is to review foreseeable methods and procedures related to the work.

# 6.02 GENERAL

- A. Provide labor, equipment, and materials to build and trim out (2) dormers and shingle dormer walls and install windows as identified on the drawing. Roofing for the dormers will be provided by others, but the contractor building the dormer must provide 15 lb. felt paper as a minimum to protect the roof of the dormer until the work on the rest of the roof is undertaken. Fasten felt with sufficient number of galvanized roofing nails to hold in place until the roofing application.
- B. Identify actual dimensions of rough opening for windows.
- C. Contractor is strongly encouraged to verify quantities prior to ordering materials.

## 6.03 JOB CONDITIONS

- A. Proceed with installation work only after roofing tearoff has been completed as described above.
- B. Proceed with installation work only when weather conditions are in compliance with manufacturer's recommendations and when substrate is completely dry and it is safe to do so.

## 6.04 ROUGH CARPENTRY, FRAMING MEMBERS - WALLS

- A. Install framing members as per framing plan, details, and as required by the building code:
  - 1. Grades
  - 2. Sizes and spacings
  - 3. Bracing
  - 4. Minimal notching or drilling
  - 5. Set with full bearing on plates.
- B. Sister double rafters and blocking where framed around roof openings.
- C. Install double nailers under dormer walls where required to provide solid base.
- D. Install joist hangers as per drawings, manufacturer's instructions, and building code requirements.
  - 1. Set straight.
  - 2. Aligned.
  - 3. Completely secured at all connection points.
  - 4. Secured with correct size and type fastenings.
- E. Install stud framing as per framing Drawings and building code requirements:
  - 1. Plumb.
  - 2. Square.
  - 3. Aligned.
  - 4. Substantially braced.
- F. Secured with correct sizes and types of fastenings.
- G. Position studs at corners to provide ample nailing backing for interior and exterior panels.
- H. Provide blocking and double top plate headers for wall openings.

- I. Lap top plates and set butt joints so they don't occur over openings.
- J. Install top plates to provide uninterrupted, ample nailing backing for interior and exterior panels.
- K. Install headers and lintels as per details and building code with:
  - 1. Ample bearing.
  - 2. Secure connection to supports.
  - 3. Provide complete and secure temporary bracing:
    - a. Double-sided prop bracing at walls.
  - 4. Braced walls won't move, waver, or shake when force is applied to them.

# 6.05 ROUGH CARPENTRY, WOOD FRAMING - ROOF

- A. Install ceiling and roof framing members as per framing plans, details, and building code requirements:
  - 1. Install ample bracing
  - 2. Minimal notching or drilling
  - 3. Install ceiling and roof joists:
    - a. Set with crowns upward.
    - b. Set with ample bearing on plates.
    - c. Securely anchored to plates.
  - 4. Provided with more tie downs than building code requires if subject to severe winds.
- B. Install rafters and sloped roof joists:
  - 1. Coordinated with roof drain design.
  - 2. Sloped for positive roof drainage.
  - 3. Make angled rafter cuts that are:
    - a. Tightly fitted.
    - b. Securely anchored.
- C. Install double roof joists and blocking where framed around roof openings.

#### 6.06 SHEATHING, SIDING, AND FINISH-UP WORK

- A. Installation:
  - 1. Stagger wall sheathing butt joints.

- B. Install wall sheathing panels so that edges have full bearing on framing.
- C. Comply with building code requirements for:
  - 1. Thicknesses of plywood
  - 2. Nail types and sizes
  - 3. Nailing pattern
  - 4. Install siding so that joints:
    - a. Are square.
    - b. Are staggered in alternate pieces if so designed.
    - c. Include 1/8" expansion joints between sheathing panels.
- D. Finishes Prepare plywood surfaces for paint or stain according to manufacturer's instructions on:
  - 1. Preservatives
  - 2. Patching
  - 3. Sanding
  - 4. Cleaning
  - 5. Priming

## 6.07 COORDINATION QUALITY CONTROL

- A. Do not allow trades to impair framing strength by cutting or drilling through members.
- B. Do not change framing member sizes without approval of the Building Official.

## 6.08 FASTENERS, CONNECTORS, AND SUPPORTS -- INSTALLATION

- A. Nailing and penetration:
  - 1. Where not shown on nailing schedule, nails shall penetrate not less 1/2 the than length of nail.
    - a. Exception: 16d nails may connect two pieces of 2".
- B. Nail at sufficient edge distance to avoid splitting wood.
- C. Predrill as required.
- D. Remove and replace split framing members.
- E. Check nailing at each stage of framing before installing subsequent framing.

- F. Quantities, spacing, and patterning as per building code.
- G. Minimal bends.
- H. Nail heads flush or recessed as required.
- I. Bent or used nails are not reused.
- J. Use nailing machines or power hammers according to manufacturer's requirements.
- K. Provide correct sizes and types of nails for use in nail quns.
- L. Check and tighten all bolt connections after they're installed.
- M. Recheck and retighten all bolt connections before final construction is completed.
- N. Install joist hangers as per Drawings and manufacturer's instructions:
  - Spacings as per Drawings.
  - 2. Set straight.
  - 3. Aligned.
  - 4. Completely secured at all connection points.
  - 5. Secured with correct size and type fastenings.

#### 6.09 FLASHING

A. Install metal flashing as needed and in accordance with details and recommendations of the Wood Shingle section of "The NRCA Roofing and Waterproofing Manual".

# 6.10 EXTRA STOCK

- A. Excess shingles are to be left for future maintenance use by the City.
- 6.11 <u>WOOD FRAMING -- BETWEEN PHASES AND AT CONCLUSION OF</u> FRAMING
  - A. Inspection and cleanup:
    - 1. Check and verify correctness of each stage of framing before installing subsequent framing:
      - a. Lumber grades, sizes, and spacing
      - b. Framing is plumb
      - c. Comers are square

- d. Plates are level
- e. Plates and cripples align vertically and horizontally
- 2. Remove all unusable wood scraps from site regularly and between each phase of framing to maintain a safe work environment.
- 3. Sweep work site clean regularly and between each phase of framing.
- 4. Do not bury any scraps or other trash on site.

## PART 7- FINISH CARPENTRY

# 7.01 GENERAL

A. Provide finish carpentry as shown on the drawings and as specified hereon.

### 7.02 MATERIALS AND PRODUCTS

- A. Provide materials as per detail drawings, applicable trade standards, or approved samples:
  - 1. Provide wood free of significant defects or deviations from grade standards.
  - 2. Plywood and finish wood panels.
  - 3. Fastenings and hardware.
  - 4. Millwork materials:
    - Clear all heart redwood trim.
    - ½" ADX plywood.
    - #1 edge grain western red shingles.
  - 5. Finish nails and putty.

## 7.03 PREPARATION

- A. Tests and quality standards:
  - 1. Reject any wood that is not certified as to grade.
  - 2. Verify that special wood is marked and certified:
    - a. Kiln-dried.
- B. Do not install finish panels with defects or deviations from grade standards:
  - 1. Marred surfaces.
  - 2. Cracks
  - 3. Defective patches.
  - 4. Loose knots.

- 5. Split edges.
- 6. Delaminations.

# 7.04 HANDLING

- A. Handle wood with care to avoid damage during:
  - 1. Transport
  - 2. Unloading
  - 3. Moving
  - 4. Stacking

### 7.05 STORAGE

- A. Store wood as required to prevent damage and moisture absorption:
  - 1. Off the ground.
  - 2. Protected from weather.
  - 3. Protected from all sources of water.
  - 4. Neatly stacked to prevent warping.
  - 5. Stacked with crosspieces for ventilation.
  - 6. Secure from leaning or toppling.
  - 7. In clean environment free of construction dust.
  - 8. Properly ventilate wood treated with preservatives; store away from work areas,
  - 9. Store kiln-dry materials to assure compliance with temperature and humidity restrictions.
  - 10. Add preservative or backpriming to wood that will be exposed to potential rot conditions.

## 7.06 PREPARATION FOR FINISHING

- A. Prepare siding and trim surfaces for paint or stain:
  - 1. Patch
  - 2. Sand
  - 3. Clean
  - 4. Preservatives
  - 5. Priming

# 7.07 CONSTRUCTION AND INSTALLATION - EXTERIOR WORK

- A. Install siding and trim so that joints:
  - 1. Are square.
  - 2. Are staggered/patterned exactly as per Drawings and Specifications.
  - 3. Include expansion space at edges as required by manufacturers.
  - 4. Miter exterior joints.

- 5. Keep number of joints to a minimum by consistently using maximum length material.
- 6. Install tight joints without gaps.
- B. Use Hot-Dipped galvanized, aluminum and stainless steel nails for cedar siding and redwood trim.
- C. Protect finish work from construction damage.

# 7.08 INSTALLATION OF CEDAR SHINGLE SIDING

- A. Install shingles, beginning at lower end with a double layer starter course, projecting shingles 1-1/2" beyond sheathing.
- B. Space adjoining shingles 4" apart.
- C. Stagger edge joints a minimum of 1-1/2" in succeeding courses.
- D. Install shingles to provide weather exposure as indicated. Cut and fit shingles at edges to provide maximum weather protection.
- E. Lay with butts as straight as practicable considering the texture of the shingles.
- F. Two nails per shingle at least 1 inch from edge and about 1 inch or 2 inches above the butt line of the following course.
- G. Make miter cuts at base of wall on one wide shingle.
- H. Weave corners as shown on drawing; corner boards will not be used.
- I. Adjust exposure as necessary so that coursing will appear uniform with a full exposure at the top course of each section.

## PART 8- CLEAN UP

#### 8.01 GENERAL

- A. All work areas are to be kept clean, clear and free of debris at all times.
- B. Do not allow trash, waste, or debris to collect on the roof. These items shall be removed from the roof on a regular basis.

- C. All tools and unused materials must be collected at the end of each workday and stored properly off of the roof surface and protected from exposure to the elements.
- D. Dispose of or recycle all trash and excess material in a manner conforming to current EPA regulations and local laws.
- E. Properly clean the roof surface after completion.
- F. Clean and restore all damaged surfaces to their original condition.

# PART 9- INSTALL WINDOWS

## 9.01 GENERAL

A. Install the window as per the manufacturer's instructions.

### PART 10- CONTRACT CLOSEOUT

#### 10.01 SUMMARY

- A. The following are prerequisites to substantial completion. Provide the following:
  - 1. Completed punch list and supporting documentation.
  - 2. Signed warranties.
  - 3. Certifications as specified.
  - 4. Occupancy permit from governing agencies as required.
- B. Provide the following prior to final acceptance:
  - 1. Final payment request with supporting affidavits.
  - 2. Completed punch list and supporting documentation.
- C. Provide sets of record drawings showing original design and all changes made during construction.
- D. Provide the following closeout procedures:
  - 1. Submit record documents.
  - 2. Submit maintenance manuals.
  - 3. Complete all repairs, call-backs, corrections, readjustments of equipment, final cleaning, and final touch-up. Remove all temporary facilities, equipment, tools and supplies.

#### PART 11- MEASUREMENT AND PAYMENT

## 11.01 MEASUREMENT

Measurement will not be made for the Work specified in this Section.

# 11.02 PAYMENT

- A. Payment for the Work specified in this Section will be made at the lump sum prices for the below listed Items, in the Schedule of Prices:
  - 01 11 00/02, Remove and Replace Existing Dormers on 1891 City Hall
- B. These prices shall be full compensation for furnishing all materials, equipment and labor as well as any and all incidentals necessary to complete the Items of Work to provide a complete and operational system.
- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices bid for the various items to which they pertain in the Schedule of Prices.

#### SECTION C - MASONRY

#### PART 1- GENERAL

#### 1.01 MASONRY

- A. The required work is to be executed on the building commonly known as "The 1891 Village Hall" (portion of Cook County pin #24-36-231-011-0000 as shown below). Address: 13051 S. Greenwood Avenue, Blue Island, Illinois 60406-2333.
- B. The Work includes all construction materials, labor, equipment, and services required by the Drawings, Specifications, and related Contract Documents. This includes labor, materials, etc. even if not explicitly required in the documents, as required to complete the project and provide for project safety and security.
- C. The project work shall comply with all applicable federal, state, county and/or city regulations. All building permits and other permits and approvals shall be obtained as required before starting work.

- D. Substitution of any specified item is not permitted except through written request and written approval by the Building Official of the City of Blue Island (hereinafter "Building Official"). The Contractor's request must provide all specification data and certification that the substitution meets all requirements of the originally specified item. Any cost savings from an accepted substitution shall be shared equally by the Contractor and the City.
- E. The Building Official of the City's Building Department shall be the City's Representative.

## 1.02 CITY'S RIGHTS AND RESPONSIBILITIES

- A. The accuracy of the information provided by the City is not guaranteed by the City and the Contractor is responsible for verifying actual site dimensions and field conditions.
- B. If the Contractor fails to complete or correct any of the Work according to the Construction Documents the City may stop work until the work is completed or corrected.
- C. The City reserves the right to occupy portions of the building space as work proceeds. If such occupancy interferes with the work, a negotiated fee or credit will be provided to the Contractor by the City and the required date of completion will be adjusted accordingly.

## 1.03 CONTRACTOR RIGHTS AND RESPONSIBILITIES

- A. The Contractor shall have complete responsibility for, and control over, construction methods, techniques, procedures and project safety and security.
- B. Any stated observation of possible safety or security hazards offered by the City in no way relieves the contractor of full responsibility for such conditions.
- C. The Contractor shall promptly pay for all labor, equipment, materials and services required to complete the Work as described in the Construction Agreement.
- D. The Contractor shall be held responsible for all damages caused by his employees or subcontractors. The Contractor shall be held responsible for all errors, omissions, negligence, non-compliance with drawings and specifications, or uncorrected work by employees, suppliers, fabricators, and subcontractors.

- E. The Contractor shall hold harmless the City from and against all claims, damages, losses, expenses, legal fees or other costs resulting from the Contractor's performance of the Work of the Construction Agreement.
- F. The Contractor shall provide free access to the work by the City and their representatives at all times.

### 1.04 SUBCONTRACTORS

- A. The Contractor's choice of subcontractors, suppliers, and fabricators shall be as approved by the City.
- B. The Contractor may not be required to use a specific subcontractor, fabricator, or supplier if there is an explicit reason not to that is confirmed by the City.

## 1.05 WORK BY OTHER CONTRACTORS

A. The Contractor and all subcontractors shall work in full cooperation on the project. This includes reasonable provision for storage and protection of City's, Contractor's, and subcontractor's materials and equipment.

#### 1.06 USE OF THE PREMISES

- A. Before beginning work, the contractor must secure approval from the building City's representative for the following:
  - 1. Areas permitted for personnel parking.
  - 2. Access to the site.
  - 3. Areas permitted for storage of materials and debris.
- B. Interior stairs may not be used for removing debris or delivering materials, except as authorized by the City's representative.

### 1.07 SAFETY

A. The contractor shall be responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. All related personnel shall be instructed daily to be mindful of the full time requirement to maintain a safe environment for the facility's occupants including staff, visitors, customers and the occurrence of the general public on or near the site. The contractor shall provide and maintain at all times any danger signs, guards and/or obstructions

necessary to protect the public and the workers from any dangers inherent with or created by the work in progress. The contractor shall hold the City harmless from any loss arising due to injury or accident to the public or the contractor's workers, or from theft of materials stored at the job site. All materials will be stored in locations other than on roof surfaces except as necessary and shall then be placed on plywood or other type of material to protect the roof surface at all times.

## 1.08 TEMPORARY FACILITIES AND CONTROLS

- A. Temporary Utilities:
  - Water, power for construction purposes and lighting are available at the site and will be made available to the contractor.
  - 2. Provide all hoses, valves and connections for water from source designated by the City when made available.
  - 3. When available, electrical power should be extended as required from the source. Provide all trailers, connections and fused disconnects.
- B. Temporary Sanitary Facilities. Sanitary facilities will not be available at the job site. The contractor shall be responsible for the provision and maintenance of portable toilets or their equal.

#### 1.09 CHANGES

A. Revisions, additions, or deletions to the Work under this agreement will be made by written order signed by the City's representative and Contractor. Such changes will not alter the remainder of this Agreement. If the revisions, additions, or deletions to the work affect the time and cost of project delivery, the Agreement will be amended accordingly.

### 1.10 TIME

A. If Work in this agreement is delayed by City-requested changes, delays in required approvals, labor disputes, fire, severe weather, or other conditions over which the Contractor has no control, the time for completion shall be extended accordingly and amended in writing in the Contract.

## 1.11 DISPUTES

A. Claims or disputes between the Contractor and the City

arising from this Agreement that are not settled through negotiation shall be offered for mediation according to the rules of the American Arbitration Association. Disagreements not settled by mediation shall be offered for arbitration as per the rules of the American Arbitration Association. Work shall not be halted or slowed by the Contractor during negotiation, mediation, or arbitration of such disputes.

## 1.12 PAYMENTS

- A. Payments will be made to the Contractor by the City according to the schedule in the Agreement.
- B. Payments may be withheld because of:
  - 1. Defective or nonconforming work not corrected.
  - 2. Failure of the Contractor to make payments to subcontractors, suppliers, labor, or for services.
  - 3. Failure to perform the Work according to the terms and conditions of this Agreement.
  - 4. Legal or other claims by third parties related to the work of this Agreement.
- C. Final payment shall be due when the Work is completed according to the Construction Documents and as stipulated in the Agreement between City and Contractor.

### 1.13 INSURANCE

- A. The Contractor shall furnish the City the following certificates of insurance as noted. The insurance amounts shall be as indicated or for larger amounts as required by law.
  - 1. Workers' Compensation Insurance for at least \$500,000 each occurrence and \$500,000 total for Bodily Injury including Personal Injury.
  - 2. Property Damage for at least \$100,000.
  - 3. Comprehensive Automobile Liability for at least \$250,000 for each person, \$500,000 each occurrence, and Property Damage for at least \$100,000 for each accident.
- B. The City shall maintain property insurance in the full amount of insurable value. The insurance shall include the interests of the bank, or other mortgage holder, if any, and the City shall insure against "all risks" of physical loss or damage.

## 1.14 TERMINATION OF THE AGREEMENT

A. The City is required to provide prompt payments to the Contractor. If payment is not forthcoming, through no fault of the Contractor, the Contractor may terminate the contract, after seven (7) days written notice to the City.

# 1.15 JURISDICTION

A. This agreement shall be enforced according to the laws of the jurisdiction of the project.

# PART 2- SCHEDULE OF VALUES

## 2.01 SUMMARY

- A. Provide a detailed breakdown of the Contract Sum as a Schedule of Values that is allocated to each part of the Work.
- B. Before submitting the first application for payment, submit a proposed Schedule of Values to the City.
- C. Provide copies of subcontracts and other data acceptable to the City to substantiate the sums described.

## PART 3- SUMMARY OF WORK

#### 3.01 SUMMARY

A. Project: Restoration and repointing, Blue Island City Hall 1891 building, 13050 Greenwood Ave., Blue Island, Illinois.

## B. Project summary:

- The building is the oldest portion of the Blue Island municipal campus, the buildings of which were built between 1891 and 1974. Work described below is called out on drawings, where drawings are provided.
- 2. Project includes: Repointing brick and stonework as complete the necessarv to work restoration of three archways (two blind, one thru the wall), reopening of bricked-in window and restoration of stone transom bar as indicated on the drawing. The intent is to use existing brick that is removed as a result of the opening up of the second material for patching where window as required; the Indiana limestone transom bar in four pieces must be purchased new by the contractor. The

new transom bar(s) must match the material and geometry of the transom bar(s) existing in the second floor windows to the south on this facade. The transom bars must project on either side of the end windows to the same dimensions to match the transom bars adjacent to them.

- 3. is assumed that the two arches that were originally recessed to the left of the front door on the first floor were merely decorative, originally being only single or double wythe in depth, with the remaining wall behind them being of standard construction with horizontally laid brick courses for the remaining thickness, which measures about 14". While the arches themselves are designed to support the brickwork over them, the thickness of the wall not constructed with arches cannot be disturbed without compromising the structural integrity of the wall over them. This being the case, the Contractor must determine the original depth of the arches before completing the work associated with them. The (2) elliptical arches can be recreated thru the wall only if it is deemed safe to do so.
- 4. Repoint mortar joints in stone foundation where mortar has deteriorated.
- 5. Performance requirements for completed work: See section 13.
- C. Project requirements: (A summary list of work included)
  - 1. Requirements for construction schedule, and sequence of work.
  - 2. Masonry and apertures re-created or modified must accommodate windows and doors which are purchased to fit them.
  - 3. Windows and Doors will be installed by the Vendor supplying them.
  - 4. The campus in its entirety will continue to be used during this renovation.
- D. Comply with all applicable building codes and rules of all governing regulatory agencies.
- E. Verify field dimensions before ordering fabrications or products to fit in place. Notify Building Official of existing conditions and dimensions that differ from those shown in the Drawings if these dimensions are critical.
- F. Unless noted otherwise, the subject of all imperative sentences in the Specifications is the Contractor. For example, "Provide and install . ." means "Contractor

shall provide and install . .".

- G. Remove brick infill and steel lintel at main front door on Greenwood Avenue in preparation for new semi-circular transom and transom and doors.
- H. Remove brick infill and steel lintel at (2) bricked-in elliptical arches over the door and windows currently serving the building department. It is assumed that these were blind recessed arches that are faced with the same brick that is featured on the outside of the building. Determine the approach to be used before these steel lintels are modified or removed.
- I. Water for Cleaning: Clean, potable, free of oils, acids, alkalis, salts and organic matter.
- J. Brushes: Fiber bristle only.
- K. Mortar strength shall not exceed strength in existing masonry construction.
- L. Repointing mortar shall not be denser than original mortar; repointing mortar shall be prehydrated.
- M. Mortar: Color match to existing.
- N. Recovered cleaned brick from areas of selective demolition.

## PART 4- CUTTING AND PATCHING

## 4.01 SUMMARY

- A. Cut and patch as required to complete the work for:
  - 1. Visual quality as directed by the Building Official.
  - 2. Inspection, preparation, and performance.
- B. Cut and patch with care to avoid damage to work, safety hazards, violation of warranty requirements, building code violations, or maintenance problems.

### PART 5- MATERIALS AND PRODUCTS

#### 5.01 MATERIALS

A. Match existing materials with new materials so that patching work is undetectable.

#### 5.02 INSTALLATION

- A. Inspect field conditions to identify all work required.
- B. Notify Building Official of work that might disrupt building operations.
- C. Perform work with workmen skilled in the trades involved. Prepare sample area of each type of work for approval. Protect adjacent work from damage and dirt.
- D. For cutting work, use proper cutting tools, not chopping tools. Make neat holes. Minimize damage to adjacent work. Check for concealed utilities and structure before cutting.
- E. Make patches, seams, and joints durable and inconspicuous. Tolerances for patching shall be the same as for new work.
- F. Support structure in advance of cutting out units to maintain stability of remaining materials.
- G. Cut away loose or unsound adjoining masonry and mortar to provide firm and solid bearing for new Work.
- H. Salvage as many whole, undamaged bricks as possible.
- I. Remove mortar, loose particles and soil from salvaged brick before using.
- J. Lay replacement brick with completely filled bed, head and collar joints.
- K. Butter ends with sufficient mortar to fill head joints and shove into place.
- L. Use wetting methods, which ensure that units are nearly saturated but surface dry when laid.
- M. Maintain joint width for replacement units to match existing.
- N. Tool exposed mortar joints in repaired areas to match joints of surrounding existing brickwork.
- O. Clean work areas and areas affected by cutting and patching operations as described in Section CLEANING AND MAINTENANCE.

## 5.03 REPOINTING BRICKWORK AND LIMESTONE FOUNDATION

- A. Cut out loose or disintegrated mortar in joints to depths equal to 2-1/2 times their width, but not less than minimum 1/2 inch depth or until sound mortar is reached.
- B. Utilize power tools only after test cuts determine no damage to masonry units results.
- C. Do not damage masonry units, spall edge of masonry unit or widen joints; replace any masonry units which become damaged during this project at the Contractor's expense.
- D. When cutting is complete, remove dust and loose material by brushing with air jet; brush, vacuum or flush joints to remove dirt and loose debris.
- E. Premoisten joint and apply mortar; joint surfaces shall be damp but free of standing water.
- F. Apply first layer of pointing mortar to areas where existing mortar was removed to depths greater than surrounding areas; apply in layers not greater than 3/8 inch until a uniform depth is formed; compact each layer thoroughly and allow to become thumb-print-hard before applying next layer.
- G. After joints have been filled to a uniform depth, place remaining pointing material in three layers with each of the first and second layers filling approximately 2/5 of joint depth and third layer the remaining 1/5; fully compact each layer and allow to become thumb-print-hard before applying next layer.
- H. Where existing units have rounded edges, recess final layer slightly from face.
- I. Take care not to spread mortar over edges onto exposed surfaces or to feather edge mortar.
- J. When mortar is thumb-print-hard, tool joints to match original appearance of joints, unless otherwise indicated.
- K. Moist cure for 72 hours.
- L. Where repointing Work precedes cleaning of existing masonry and stone, allow mortar to harden not less than 30 days before beginning cleaning Work.

### PART 6- CONSTRUCTION PROCEDURES

## 6.01 SUMMARY

- A. Provide administrative coordination of all work, including qualified, trained employees and subcontractors, and supervisory personnel.
- B. Arrange and conduct preconstruction and construction meetings with Building Official and any other parties that the Building Official may request.
- C. Submit progress schedule, updated monthly. Provide submittal schedule, coordinated with progress schedule. Submit schedule of required tests including payment and responsibility.
- D. Submit schedule of values.
- E. Submit payment request procedures.
- F. Provide to the Building Official and post at the construction site, a phone and address list of individuals to be contacted in case of emergency.
- G. Maintain and update record drawings and specifications as work progresses. Submit a complete, updated set of record documents upon conclusion of the work.
- H. Keep all work clean and well protected from dirt, weather, theft, and damage.

## 6.02 MATERIALS HANDLING

- A. Provide all materials required to complete the work as shown on the Drawings and specified herein.
- B. Deliver, store, and transport materials to avoid damage to the materials or to any other work.

#### 6.03 PRECONSTRUCTION AND PREPARATION

- A. Examine and verify that job conditions are satisfactory for speedy and acceptable work.
  - 1. Maintain and use all up-to-date construction documents on site.
  - 2. Maintain and use up-to-date trade standards and materials supplier's instructions.
  - 3. Confirm there is no conflict between this work and governing building and safety codes.

- 4. Confirm there are no conflicts between this work and work of other trades.
- 5. Confirm that work of other trades that must precede this work has been completed.
- B. Planning and coordination.
- C. If required by the Building Official, a preconstruction meeting will be held with all concerned parties.
- D. Use agreed schedule for installation and for field observation by the Building Official.
- E. Close off, seal, mask and board up areas, landscaping, materials and surfaces not receiving Work to protect from damage.

## PART 7- SITEWORK - DEMOLITION

## 7.01 GENERAL

A. Provide all related materials, equipment, and labor required to complete the work as required.

### 7.02 PROTECTIVE BARRIERS AND COVERS

A. Provide demolition materials, barriers, protective covers, etc. to complete the work as specified.

#### 7.03 DEMOLITION

- A. Demolish and remove all work indicated on Drawings:
  - 1. Follow all permit requirements and governing regulations.
  - 2. Provide City with proof of compliance with permit requirements and governing regulations.
  - 3. Verify demolition shown in Drawings in onsite review with the Building Official.
  - 4. Start demolition at topmost level, and proceed downward.
  - 5. Provide water supply and hoses for spray, to control dust.
  - 6. Provide operational plan and timeline for demolition.
  - 7. Keep stairs, corridors, and entries/exits clear.
- B. Protection of property:
  - 1. Don't allow debris or dust to contaminate the area.

- 2. Check and correct potential demolition hazards in existing construction.
- 3. Identify utilities for cutoff.
- 4. Locate any hidden utilities.
- 5. Build and test the strength of protective bracing.
- 6. Provide braces or shores wherever structural elements will be removed in partial demolition.
- 7. Do not allow any dislodged materials to fall outside demolition area.
- 8. Protect all public areas and adjacent property with secure protective barriers.

### C. Cleanup:

- 1. Provide debris chutes ample in size, thoroughly supported and secure from movement.
- 2. Completely control and remove all demolition debris, scraps, and dust.

## PART 8- CONSTRUCTION

### 8.01 SITEWORK PREPARATION

- A. Regulations and permits:
  - 1. Obtain all required approvals.
  - 2. Obey all restrictions, deadlines, notification requirements, etc. of governing agencies.
  - 3. Notify Building Official of impending sitework.

#### B. Coordination:

- 1. Keep and use the latest construction documents on site:
- 2. Architectural and Specification relating to sitework.
- 3. A preconstruction meeting will be held with all concerned parties, to review coordination.

## 8.02 CONSTRUCTION PROTECTION

- A. Provide sturdy barriers and covers as necessary for safety and to protect remaining work:
  - 1. Pedestrian barriers
  - 2. Shoring
  - 3. Covers over paving, drives, and ramps
  - 4. Tree and shrub protectors
- B. Provide security lighting, fencing, and warning signs.

- 1. Protect property from intruders.
- 2. Provide warning lights to protect users of this and adjacent buildings.
- 3. Provide warning lights as necessary to protect those in public areas near this work.

### 8.03 PLANT PROTECTION

- A. Erect barricades and fences as required to protect planting and related property.
  - 1. Keep oil and other chemicals away from paving and planting.
  - 2. Protect planting areas from foot and wheel traffic.
  - 3. Do not prune trees except as approved by the Building Official.
  - 4. Pruning can only be done by qualified landscaping specialists.

## 8.04 CONSTRUCTION

- A. Masonry work as follows:
  - 1. Restoration of the three archways per the drawing and as noted in Section 3.1
  - Reopen bricked-in window and restoration of stone transom bar on the second floor as indicated on the drawing.
  - 3. Repointing brick and stonework as necessary on foundation stonework and on areas renovated as described above.

## PART 9- CHANGE ORDER PROCEDURES

#### 9.01 SUMMARY

- A. Changes in the work may be required which will be authorized by a Change Order.
- B. Change Orders, signed by the Building Official, to authorize changes in the work will include equivalent changes in the Contract Sum and/or Time of Completion.
- C. Change orders will be numbered in sequence and dated.
- D. A request for estimates for possible changes is not a Change Order or a direction to proceed with the proposed changes. That can only be authorized through a signed Change Order.

### PART 10- SUBMITTALS

## 10.01 SUMMARY

- A. Provide all submittals as specified. Provide four copies where multiple copies are specified but the number is not stated.
- B. Provide re-submittals when submittals are not approved.
- C. Drawings shall be prepared specifically for this project by the city. Drawings shall include dimensions and details, including adjacent construction and related work. Note special coordination required. Note any deviations from requirements of the Contract Documents.
- D. Provide warranties as specified. Warranties shall be signed by supplier or installer responsible for performance. Warranties shall not limit liability for negligence or non-compliance with documents.
  - 1. Submit the following within seven calendar days after receiving the Notice to Proceed:
    - a. Submit list of materials to be provided for this work.
    - b. Submit manufacturer's specifications required to prove compliance with these specifications.
    - c. Submit manufacturer's installation instructions.

#### PART 11- PRODUCTS AND SUBSTITUTIONS

## 11.01 REQUIREMENTS

- A. Provide products selected or approved equal. Products submitted for substitution shall be submitted with acceptable documentation, and include costs of substitution including related work.
- B. Conditions for substitution include:
  - 1. An 'or equal' phrase in the specifications.
  - 2. Specified material cannot be coordinated with other work.
  - 3. Specified material is not acceptable to authorities having jurisdiction.
  - 4. Substantial advantage is offered the City in terms of cost, time, or other valuable consideration.

C. Substitutions shall be submitted prior to award of contract, unless otherwise acceptable. Approval of shop drawings, product data, or samples is not a substitution approval unless clearly presented as a substitution at the time of submittal.

### PART 12- CLEANING AND MAINTENANCE

### 12.01 SUMMARY

- A. Keep the buildings and site well-organized and clean throughout the construction period.
- B. Provide general clean up daily and complete weekly pickup and removal of all scrap and debris from the site. Exception: Reusable scrap shall be stored in a neatly maintained, designated storage area.
- C. Daily pickup shall include a thorough broom—clean sweep of all interior spaces in current use. Also, each day, and as required during the day to keep the public areas safe for pedestrians and the building's users, sweep paved areas on the site and public paved areas adjacent to the site. Completely remove swept dirt and debris. These cleanings will not replace required clean up after the work of specific trades such as specified herein.
- D. At completion of the Work, remove from the job site all tools and equipment, surplus materials, equipment, scrap and debris.
- E. Exterior of building: Inspect exterior surfaces and remove all waste materials, mortar droppings, smudges, spots, stains or dirt.
- F. Interior of building: Inspect interior surfaces and remove all waste materials, mortar droppings, smudges, spots, stains or dirt.
- G. Glass: Clean inside and outside so there are no spots or dirt, and no smudges or streaks remain from the cleaning process.
- H. Schedule final cleaning as approved by the Building Official to enable the City to accept a completely clean Work.
- I. Clean surfaces and remove large particles with wood scrapers or non-ferrous wire brush.

- J. Final cleaning will be comparable to that provided by professional, skilled cleaners using commercial grade cleaning materials. Cleaning materials will be used with care and will be compatible with building materials and finishes. Final cleaning will include removal of scraps or waste in landscaped areas and thorough cleaning of walkways, decks, paved areas and public paved areas adjacent to the site.
- K. After installation, inspect all work for improper installation or damage. Repair or replace any defective work. Repair work will be undetectable. Redo repairs if work is still defective, as directed by the Building Official.

## PART 13- CONTRACT CLOSEOUT

## 13.01 SUMMARY

- A. The following are prerequisites to substantial completion. Provide the following:
  - 1. Completed punch list and supporting documentation.
  - 2. Signed warranties.
  - 3. Certifications as specified.
  - 4. Occupancy permit from governing agencies as required.
- B. Provide the following prior to final acceptance:
  - 1. Final payment request with supporting affidavits.
  - 2. Completed punch list and supporting documentation.
- C. Provide sets of record drawings showing original design and all changes made during construction.
- D. Provide the following closeout procedures:
  - 1. Submit record documents.
  - 2. Submit maintenance manuals.
  - 3. Complete all repairs, call-backs, corrections, readjustments of equipment, final cleaning, and final touch-up. Remove all temporary facilities, equipment, tools and supplies.

# PART 14- MEASUREMENT AND PAYMENT

## 14.01 MEASUREMENT

Measurement will not be made for the Work specified in this Section.

# 14.02 PAYMENT

- A. Payment for the Work specified in this Section will be made at the lump sum prices for the below listed Items, in the Schedule of Prices:
  - 01 11 00/03, Exterior Masonry Repairs
- B. These prices shall be full compensation for furnishing all materials, equipment and labor as well as any and all incidentals necessary to complete the Items of Work to provide a complete and operational system.
- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices bid for the various items to which they pertain in the Schedule of Prices.



## SECTION D - GUTTERS AND DOWNSPOUTS

## PART 1- GENERAL

## 1.01 GUTTERS AND DOWNSPOUTS

A. The required work is to be executed on the building commonly known as "The 1891 Village Hall" (portion of Cook County pin #24-36-231-011-0000 as shown below). Address: 13051 S. Greenwood Avenue, Blue Island, Illinois 60406-2333.

- B. The Work includes all construction materials, labor, equipment, and services required by the Drawings, Specifications, and related Contract Documents. This includes labor, materials, etc. even if not explicitly required in the documents, as required to complete the project and provide for project safety and security.
- C. The project work shall comply with all applicable federal, state, county and/or city regulations. All permits and approvals shall be obtained as required before starting work.
- D. Substitution of any specified item is not permitted except through written request and written approval by the Building Official of the City of Blue Island (hereinafter "Building Official"). The Contractor's request must provide all specification data and certification that the substitution meets all requirements of the originally specified item. Any cost savings from an accepted substitution shall be shared equally by the Contractor and the City.
- E. The Building Official of the City's Building Department shall be the City's Representative.
- F. Unless noted otherwise, the subject of all imperative sentences in the Specifications is the Contractor. For example, "Provide and install . ." means "Contractor shall provide and install . .".

## 1.02 CITY'S RIGHTS AND RESPONSIBILITIES

- A. The accuracy of the information provided by the City is not guaranteed by the City and the Contractor is responsible for verifying actual site dimensions and field conditions.
- B. If the Contractor fails to complete or correct any of the Work according to the Construction Documents the City may stop work until the work is completed or corrected.

## 1.03 CONTRACTOR RIGHTS AND RESPONSIBILITIES

- A. The Contractor shall have complete responsibility for, and control over, construction methods, techniques, procedures and project safety and security.
- B. Any stated observation of possible safety or security hazards offered by the City in no way relieves the contractor of full responsibility for such conditions.

- C. The Contractor shall promptly pay for all labor, equipment, materials and services required to complete the Work as described in the Construction Agreement.
- D. The Contractor shall be held responsible for all damages caused by his employees or subcontractors. The Contractor shall be held responsible for all errors, omissions, negligence, non-compliance with drawings and specifications, or uncorrected work by employees, suppliers, fabricators, and subcontractors.
- E. The Contractor shall hold harmless the City from and against all claims, damages, losses, expenses, legal fees or other costs resulting from the Contractor's performance of the Work of the Construction Agreement.
- F. The Contractor shall provide free access to the work by the City and their representatives at all times.

## 1.04 SUBCONTRACTORS

- A. The Contractor's choice of subcontractors, suppliers, and fabricators shall be as approved by the City.
- B. The Contractor may not be required to use a specific subcontractor, fabricator, or supplier if there is an explicit reason not to that is confirmed by the City.

## 1.05 WORK BY OTHER CONTRACTORS

A. The Contractor and all subcontractors shall work in full cooperation on the project. This includes reasonable provision for storage and protection of City's, Contractor's, and subcontractor's materials and equipment.

#### 1.06 CHANGES

A. Revisions, additions, or deletions to the Work under this agreement will be made by written order signed by the City's representative and Contractor. Such changes will not alter the remainder of this Agreement. If the revisions, additions, or deletions to the work affect the time and cost of project delivery, the Agreement will be amended accordingly.

#### 1.07 TIME

A. If Work in this agreement is delayed by City-requested changes, delays in required approvals, labor disputes, fire, severe weather, or other conditions over which the

Contractor has no control, the time for completion shall be extended accordingly and amended in writing in the Contract.

### 1.08 DISPUTES

A. Claims or disputes between the Contractor and the City arising from this Agreement that are not settled through negotiation shall be offered for mediation according to the rules of the American Arbitration Association. Disagreements not settled by mediation shall be offered for arbitration as per the rules of the American Arbitration Association. Work shall not be halted or slowed by the Contractor during negotiation, mediation, or arbitration of such disputes.

## 1.09 PAYMENTS

- A. Payments will be made to the Contractor by the City according to the schedule in the Agreement.
- B. Payments may be withheld because of:
  - 1. Defective or nonconforming work not corrected.
  - 2. Failure of the Contractor to make payments to subcontractors, suppliers, labor, or for services.
  - 3. Failure to perform the Work according to the terms and conditions of this Agreement.
  - 4. Legal or other claims by third parties related to the work of this Agreement.
- C. Final payment shall be due when the Work is completed according to the Construction Documents and as stipulated in the Agreement between City and Contractor.

#### 1.10 INSURANCE

- A. The Contractor shall furnish the City the following certificates of insurance as noted. The insurance amounts shall be as indicated or for larger amounts as required by law.
  - 1. Workers' Compensation Insurance for at least \$500,000 each occurrence and \$500,000 total for Bodily Injury including Personal Injury.
  - 2. Property Damage for at least \$100,000.
  - 3. Comprehensive Automobile Liability for at least \$250,000 for each person, \$500,000 each occurrence, and Property Damage for at least \$100,000 for each accident.

B. The City shall maintain property insurance in the full amount of insurable value. The insurance shall include the interests of the bank, or other mortgage holder, if any, and the City shall insure against "all risks" of physical loss or damage.

# 1.11 TERMINATION OF THE AGREEMENT

A. The City is required to provide prompt payments to the Contractor. If payment is not forthcoming, through no fault of the Contractor, the Contractor may terminate the contract, after seven (7) days written notice to the City.

### 1.12 SCHEDULE OF VALUES

- A. Provide a detailed breakdown of the Contract Sum as a Schedule of Values that is allocated to each part of the Work.
- B. Before submitting the first application for payment, submit a proposed Schedule of Values to the City.
- C. Provide copies of subcontracts and other data acceptable to the City to substantiate the sums described.

## 1.13 JURISDICTION

A. This agreement shall be enforced according to the laws of the jurisdiction of the project.

### 1.14 CHANGE ORDER PROCEDURE

- A. Changes in the work may be required which will be authorized by a Change Order.
- B. Change Orders, signed by the Building Official, to authorize changes in the work will include equivalent changes in the Contract Sum and/or Time of Completion.
- C. Change orders will be numbered in sequence and dated.
- D. A request for estimates for possible changes is not a Change Order or a direction to proceed with the proposed changes. That can only be authorized through a signed Change Order.

# 1.15 USE OF THE PREMISES

A. Before beginning work, the contractor must secure approval from the building City's representative for the

### following:

- Areas permitted for personnel parking.
- 2. Access to the site.
- 3. Areas permitted for storage of materials and debris.
- Interior stairs may not be used for removing debris or В. delivering materials, except as authorized by the City's representative.

#### 1.16 TEMPORARY FACILITIES AND CONTROLS

- Α. Temporary Utilities:
  - Water, power for construction purposes and lighting are available at the site and will be made available to the roofing contractor.
  - 2. Provide all hoses, valves and connections for water source designated by the City when made from available.
  - 3. When available, electrical power should be extended as required from the source. Provide all trailers, connections and fused disconnects.
  - 4. Temporary Sanitary Facilities. Sanitary facilities will not be available at the job site. contractor shall be responsible for the provision and maintenance of portable toilets or their equal.

#### 1.17 SAFETY

The contractor shall be responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. All related personnel shall instructed daily to be mindful of the full time requirement to maintain a safe environment for the facility's occupants including staff, visitors, customers and the occurrence of the general public on or near the site. The contractor shall provide and maintain at all times any danger signs, guards and/or obstructions necessary to protect the public and the workers from any dangers inherent with or created by the work in progress. The roofing contractor shall hold the City harmless from any loss arising due to injury or accident to the public or the contractor's workers, or from theft of materials stored at the job site. All materials will be stored in locations other than on roof surfaces except as necessary and shall then be placed on plywood or other type of material to protect the roof surface at all times.

### PART 2- GENERAL

# 2.01 SCOPE

A. This specification covers the installation and material requirements for the replacement of the gutters and downspouts on Blue Island's 1891 Ctiy Hall, 13051 Greenwood Ave, Blue Island Illinois, and any necessary repair of fascia and related existing structure.

# 2.02 SCOPE OF WORK

A. Provide all labor, materials and equipment required to replace gutters/downspouts on existing building, and repair any deterioration or damage to fascia or other affected area. Fascia repair not discovered at the time of bidding will be charged to the City on a time and material basis, approved by the Building Official.

# 2.03 QUALITY ASSURANCE

- A. Manufacturer shall have a minimum of five years' experience in the manufacture of aluminum gutters and downspouts.
- B. Installer shall meet the following:
  - 1. Successfully applied metal gutter systems of comparable size and complexity, which reflect a quality installation.
  - Have been in business for a minimum period of three years in the region where the work will be performed.

# 2.04 SUBMITTALS

A. Manufacturer's Literature: Material description and recommended installation instructions, or wrapper showing installation instructions.

# 2.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. All material shall be covered and protected during transit to protect all coated finishes.
- B. Deliver materials with manufacturer's labels intact and legible.
- C. Protect against standing water and condensation between adjacent surfaces.

- D. Store materials on raised platform or pallets and protect with coverings if stored in the weather.
- E. Protect against damage and discoloration.
- F. When hoisting, handle gutter and downspouts with non-marring slings.
- G. Stack pre-formed material in manner to prevent twisting, bending and rubbing.
- H. Provide protection for pre-coated surfaces.

# 2.06 WARRANTY

- A. Materials: Manufacturer's Limited Material Warranty terms and conditions to apply.
- B. Workmanship: Bids shall include applicators'/contractors' full coverage warranty (100%) against defects in labor for two years, from the date of completion of the job. Manufacturer shall be responsible for 100% of defects in labor and materials for 1 year from date of completed and accepted installation, and prorate thereafter for the limited warranty.

## PART 3- PRODUCT SELECTION

# 3.01 GUTTERS

- A. Gutters shall be 5" K-style and fabricated of 0.032 inch thick aluminum roll. Gutters shall be hung with high points equidistant from downspout. Lap joint, except for expansion joints shall be at least one inch thick in the direction of flow. Secure aluminum gutter to the fascia with nails (7") and aluminum brackets at intervals not exceeding 32 inches.
- B. Gutters shall have a slope to downspout of  $1^{\prime\prime}$  per  $32^{\prime}$  of run.
- C. Connections and fittings shall be snug and water tight.

# 3.02 DOWNSPOUTS

A. Downspouts shall be fabricated of 0.032 inch thick aluminum roll. Downspouts shall be set plumb and clear of wall and wall protruberances. Each section of downspout shall be anchored to wall at top and bottom and shall be slotted to allow not less than 1/2 inch movement for each 10 feet of downspout. Elbows, offsets and shores are to

be provided where required.

- B. Downspouts shall be installed plumb and in accordance to SMACNA's Architectural Sheet Metal Manual.
- C. The contractor will mortar seal downspout(s) into the existing sewer line to match current conditions.
- D. The contractor will install cleanouts at the bottom of downspouts at all locations where a downspout joins an existing sewer line.
- E. The contractor will ensure that all gutters are secured properly and are aligned at the correct slope to carry away water.
- F. Downspouts to be  $3\times4$ -inch rectangular.
- G. Downspouts anchors shall be made of the same material and color as the downspouts and installed every 60".

## 3.03 FINISH

A. Aluminum gutter and downspout colors shall be selected by the City at the time gutters, downspouts and fascia shop drawings are submitted to the City for review and approval.

# 3.04 FLASHING

A. Material, gauge and finish to match gutters.

# PART 4- DESCRIPTION OF WORK

# 4.01 EXAMINATION

- A. All areas of rain drainage system installation shall be examined for any conditions that may be detrimental to proper installation. Substrate shall be level, flat and true to avoid gutter stresses and distortion.
- B. Proceed with gutter installation only after satisfactory conditions are met.
- C. Start of installation means acceptance of existing conditions.

# 4.02 PROTECTION

A. The installer shall be responsible for protecting materials and work before and during the installation

process.

# 4.02 REMOVAL OF EXISTING AND INSTALLATION OF NEW

- A. Remove existing gutters and downspouts and replace. New drip edges will be installed by roofing contractor for this project.
- B. Removed material must be legally disposed of.
- C. Downspouts will be installed as they are currently positioned, unless otherwise requested by the Building Official.

#### PART 5- EXECUTION

## 5.01 FABRICATION

A. Fabricate gutters, flashings and accessories in longest practical lengths.

## 5.02 PROTECTION

- A. Treat, or isolate with protective material, any contacting surfaces of dissimilar materials to prevent electrolytic corrosion.
- B. Protect Work of other trades against damage and discoloration.

# 5.03 SURFACE PREPARATION

A. Clean and dry surfaces prior to applying sealant.

### 5.04 GUTTERS

- A. Comply with gutter manufacturer's instructions for assembly and installation.
- B. Secure gutters without warp or deflection.
- C. If gutter hangers are used, the straps will be installed under the roofing shingles.

# 5.05 ALLOWABLE ERECTION TOLERANCE

A. Maximum substrate Variation: 1/4 inch in 20 feet.

# 5.06 FLASHING

A. Install in compliance with Manufacturer's installation

instructions.

B. Install flashings to allow for thermal movement.

## 5.07 CUTTING AND FITTING

A. Neat, square and true. Torch or saw cutting is prohibited.

# 5.08 FITTINGS

A. The contractor will make all connections within the gutter system using appropriate fittings (i.e., preformed corners, elbows, end caps, and connectors.) that match the gutter and downspout material in appearance, properties, and quality.

# 5.09 SEALANT

A. Install sealant as required to ensure all joints are watertight.

# 5.10 TESTING

A. When work is completed, provide a water test to ensure there are no leaks and that all of the water runs to the bottom of each downspout.

## PART 6- CLEAN UP AND CLOSE OUT

# 6.01 GUTTER DAMAGE AND FINISH SCRATCHES

- A. Touch-up paint should be applied to damaged paint areas that involve minor scratches or abrasions.
- B. Gutters or flashings that have severe paint and/or other damage shall be replaced as directed by the Building Official.

## 6.02 CLEANING

A. The contractor will be responsible for properly maintaining the work site, for storing materials in a safe and secure manner, for removal and disposal of any and all debris generated by the work performed within 24 hours, and, upon completion, for cleaning the site to a pre-work condition. At completion of each day's work, sweep the Gutters, and Flashings clean. Do not allow fasteners, cuttings, filings or scraps to accumulate.

### PART 7- CONTRACT CLOSEOUT

# 7.01 SUMMARY

- A. The following are prerequisites to substantial completion. Provide the following:
  - 1. Completed punch list and supporting documentation.
  - 2. Signed warranties.
  - 3. Certifications as specified.
- B. Provide the following prior to final acceptance:
  - 1. Final payment request with supporting affidavits.
  - 2. Completed punch list and supporting documentation.
- C. Provide the following closeout procedures:
  - 1. Submit record documents.
  - 2. Submit maintenance manuals.
  - 3. Complete all repairs, call-backs, corrections, readjustments of equipment, final cleaning, and final touch-up. Remove all temporary facilities, equipment, tools and supplies.

## PART 8- MEASUREMENT AND PAYMENT

### 8.01 MEASUREMENT

Measurement will not be made for the Work specified in this Section.

### 8.02 PAYMENT

- A. Payment for the Work specified in this Section will be made at the lump sum prices for the below listed Items, in the Schedule of Prices:
  - 01 11 00/04, Remove and Replace Existing Gutters, Downspouts and Metal Clad Fascia
- B. These prices shall be full compensation for furnishing all materials, equipment and labor as well as any and all incidentals necessary to complete the Items of Work to provide a complete and operational system.
- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices bid for the various items to which they pertain in the Schedule of Prices.

# SECTION E - WINDOWS AND DOORS

### PART 1- GENERAL

## 1.01 WINDOWS AND DOORS

- A. The subject building is "The 1891 Village Hall" and the 1927 addition to that building (portion of Cook County pin #24-36-231-011-0000 as shown below). Address: 13051 S. Greenwood Avenue, Blue Island, Illinois 60406-2333.
- B. The Work includes all materials, labor, equipment, and services required by the Drawings, Specifications, and related Contract Documents to replace the exterior windows and doors as noted on the drawing and other documents. This includes labor, materials, etc. even if not explicitly required in the documents, as required to complete the project and provide for project safety and security.
- C. Window types and sizes are aluminum clad with black as the specified color and shall be as per the Drawings and Window Schedule.
- D. The project work shall comply with all applicable federal, state, county and/or city regulations. All permits and approvals shall be obtained as required before starting work.
- E. Substitution of any specified item is not permitted except through written request and written approval by the Building Official of the City of Blue Island (hereinafter "Building Official"). The Contractor's request must provide all specification data and certification that the substitution meets all requirements of the originally specified item. Any cost savings from an accepted substitution shall be shared equally by the Contractor and the City.
- F. The Building Official of the City's Building Department shall be the City's Representative.

### 1.02 CITY'S RIGHTS AND RESPONSIBILITIES

- A. The accuracy of the information provided by the City is not guaranteed by the City and the Contractor is responsible for verifying actual site dimensions and field conditions.
- B. If the Contractor fails to complete or correct any of the Work according to the Construction Documents the City may

stop work until the work is completed or corrected.

C. The City reserves the right to occupy portions of the building space as work proceeds. If such occupancy interferes with the work, a negotiated fee or credit will be provided to the Contractor by the City and the required date of completion will be adjusted accordingly.

## 1.03 CONTRACTOR RIGHTS AND RESPONSIBILITIES

- A. The Contractor shall have complete responsibility for, and control over, construction methods, techniques, procedures and project safety and security.
- B. Any stated observation of possible safety or security hazards offered by the City in no way relieves the contractor of full responsibility for such conditions.
- C. The Contractor shall promptly pay for all labor, equipment, materials and services required to complete the Work as described in the Construction Agreement.
- D. The Contractor shall be held responsible for all damages caused by his employees or subcontractors. The Contractor shall be held responsible for all errors, omissions, negligence, non-compliance with drawings and specifications, or uncorrected work by employees, suppliers, fabricators, and subcontractors.
- E. The Contractor shall hold harmless the City from and against all claims, damages, losses, expenses, legal fees or other costs resulting from the Contractor's performance of the Work of the Construction Agreement.
- F. The Contractor shall provide free access to the work by the City and their representatives at all times.
- G. Unless noted otherwise, the subject of all imperative sentences in the Specifications is the Contractor. For example, "Provide and install . ." means "Contractor shall provide and install . .".

### 1.04 SUBCONTRACTORS

- A. The Contractor's choice of subcontractors, suppliers, and fabricators shall be as approved by the City.
- B. The Contractor may not be required to use a specific subcontractor, fabricator, or supplier if there is an explicit reason not to that is confirmed by the City.

# 1.05 WORK BY OTHER CONTRACTORS

A. The Contractor and all subcontractors shall work in full cooperation on the project. This includes reasonable provision for storage and protection of City's, Contractor's, and subcontractor's materials and equipment.

## 1.06 CHANGES

A. Revisions, additions, or deletions to the Work under this agreement will be made by written order signed by the City's representative and the Contractor. Such changes will not alter the remainder of this Agreement. If the revisions, additions, or deletions to the work affect the time and cost of project delivery, the Agreement will be amended accordingly.

# 1.07 TIME

A. If Work in this agreement is delayed by City-requested changes, delays in required approvals, labor disputes, fire, severe weather, or other conditions over which the Contractor has no control, the time for completion shall be extended accordingly and amended in writing in the Contract.

### 1.08 DISPUTES

A. Claims or disputes between the Contractor and the City arising from this Agreement that are not settled through negotiation shall be offered for mediation according to the rules of the American Arbitration Association. Disagreements not settled by mediation shall be offered for arbitration as per the rules of the American Arbitration Association. Work shall not be halted or slowed by the Contractor during negotiation, mediation, or arbitration of such disputes.

## 1.09 PAYMENTS

- A. Payments will be made to the Contractor by the City according to the schedule in the Agreement.
- B. Payments may be withheld because of:
  - 1. Defective or nonconforming work not corrected.
  - 2. Failure of the Contractor to make payments to subcontractors, suppliers, labor, or for services.
  - 3. Failure to perform the Work according to the terms and conditions of this Agreement.

- 4. Legal or other claims by third parties related to the work of this Agreement.
- C. Final payment shall be due when the Work is completed according to the Construction Documents and as stipulated in the Agreement between City and Contractor.

# 1.10 INSURANCE REQUIREMENTS

- A. Contractors shall, during the term of the contract with City or any renewal or extension thereof, provide and maintain the types and amounts of insurance set forth. Contractor must provide the following insurance certificate with current issuance date, within ten (10) business days of notification by the City (Faxed/E-mailed certificates are acceptable). All insurance and certificate(s) of insurance shall contain the following provisions:
- B. The awarded contractor shall furnish and keep in full force the following insurance during the term of this Contract:
  - 1. Commercial General Liability minimum \$500,000.00
  - 2. Commercial Automobile Liability minimum \$300,000.00 - Combined Single Limit
  - 3. Illinois Workers Compensation
  - 4. Name the City, its officers, agents, representatives, and employees as additional insured as to all applicable coverage with the exception of workers compensation insurance.
  - 5. Waive subrogation against the City.
- C. It is the responsibility of the contractor for coverage not to be cancelled, non-renewed, or materially changed except after 30 days written notice by e-mail or certified letter.

# 1.12 TERMINATION OF THE AGREEMENT

A. The City is required to provide prompt payments to the Contractor. If payment is not forthcoming, through no fault of the Contractor, the Contractor may terminate the contract, after seven (7) days written notice to the City.

## 1.13 JURISDICTION

A. This agreement shall be enforced according to the laws of the jurisdiction of the project.

# 1.14 USE OF THE PREMISES

- A. Before beginning work, the contractor must secure approval from the building City's representative for the following:
  - 1. Areas permitted for personnel parking.
  - 2. Access to the site.
  - 3. Areas permitted for storage of materials and debris.
- B. Interior stairs may not be used for removing debris or delivering materials, except as authorized by the City's representative.

# 1.15 TEMPORARY FACILITIES AND CONTROLS

- A. Temporary Utilities:
  - 1. Water, power for construction purposes and lighting are available at the site and will be made available to the contractor.
  - Provide all hoses, valves and connections for water from source designated by the City when made available.
  - 3. When available, electrical power should be extended as required from the source. Provide all trailers, connections and fused disconnects.
- B. Temporary Sanitary Facilities. Sanitary facilities will not be available at the job site. The contractor shall be responsible for the provision and maintenance of portable toilets or their equal.

# 1.16 JOB SITE PROTECTION

- A. The contractor shall adequately protect building, paved areas, service drives, lawn, shrubs, trees, etc. from damage while performing the required work. Provide canvas, boards and sheet metal (properly secured) as necessary for protection and remove protection material at completion. The contractor shall repair or be responsible for costs to repair all property damaged during the window installation.
- B. During the window installation, the City will continue to occupy the existing buildings. The contractor shall take precautions to prevent the spread of dust and debris, particularly where such material may sift into the building. The contractor shall provide labor and materials to construct, maintain and remove necessary temporary enclosures to prevent dust or debris in the

construction area(s) from entering the remainder of the building.

- C. Do not overload any portion of the building, either by use of or placement of equipment, storage of debris, or storage of materials.
- D. Protect against fire and flame spread. Maintain proper and adequate fire extinguishers.
- E. Remove debris at the completion of each day's work.
- F. Store moisture susceptible materials above ground and protect with waterproof coverings.
- G. Remove all traces of piled bulk materials and return the job site to its original condition upon completion of the work.

# 1.17 SAFETY

The contractor shall be responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that safety related. All related personnel shall instructed daily to be mindful of the full time requirement to maintain a safe environment for the facility's occupants including staff, visitors, customers and the occurrence of the general public on or near the site. The contractor shall provide and maintain at all times any danger signs, guards and/or obstructions necessary to protect the public and the workers from any dangers inherent with or created by the work in progress. The contractor shall hold the City harmless from any loss arising due to injury or accident to the public or the contractor's workers, or from theft of materials stored at the job site.

## 1.18 MATERIALS HANDLING

- A. Provide all materials required to complete the work.
  - 1. Deliver and transport materials to avoid damage to the product or to any other work.
  - 2. Return any products or materials delivered in a damaged or unsatisfactory condition.
  - 3. Materials and products delivered will be certified by the manufacturer to be as specified.
- B. Delivery:

- 1. Deliver after interior finish materials are dry.
- 2. Packaging must be sealed with clear manufacturer and identification markings.
- 3. Provide manufacturer's representative's certification that doors delivered are as specified.

## C. Storage:

- 1. Store flat on 2x4's spaced at 12" centers.
- 2. Provide sheet materials at bottom and top sides; to protect doors from damage.
- 3. Lift and carry doors and windows when moving them, do not drag into position.
- 4. Store delivered doors and windows:
  - a. Consistently vertical or flat.
  - b. Supported off floor.
  - c. Protected from weather and moisture.
  - d. Protected from construction damage.

# 1.03 SUBMITTALS

- A. Submit the following within 30 calendar days after receiving the Notice to Proceed:
  - 1. Submit list of materials to be provided for this work.
  - 2. Submit manufacturer's data required to prove compliance with these Specifications.
  - 3. Submit manufacturer's installation instructions.
  - 4. Submit 8" x 8" samples of each specified door face material.

# PART 2- SCHEDULE OF VALUES

#### 2.01 SUMMARY

- A. Unless otherwise stated in the Agreement, provide a detailed breakdown of the Contract Sum as a Schedule of Values that is allocated to each part of the Work.
- B. Before submitting the first application for payment, submit a proposed Schedule of Values to the City.
- C. Provide copies of subcontracts and other data acceptable to the Owner to substantiate the sums described

# PART 3- PRODUCTS & MATERIALS

# 3.01 DESCRIPTION

- This specification covers the replacement, purchase and installation of all windows and doors shown on the window schedule and on the drawings, and the purchase and installation of casement windows in the restored dormers in the attic. The windows shall be Marvin Ultimate Wood windows or equivalent of the various types described in the window schedule and on the drawings. The windows will be Cashmere Clad on the exterior and bare pine on the interior, finished as described in the window schedule, and have aluminum screens as noted thereon. The windows will also feature insulated glass with U-Factor of 0.3, Solar Heat Gain Coefficient of 0.26, Visible Light Transmittance of 0.44, and Condensation Resistance of 58, and where noted SDL simulated divided lights with spacer bars. The doors shall be Marvin Ultimate Commercial Doors or equivalent with insulated glass and Cashmere Clad exteriors and finished as noted in the schedule, with standard clad brick mould.
- B. Doors shall be manufactured by Marvin Windows and Doors or equivalent.
- C. The contractor will supply all of the materials, fasteners and other equipment and supplies to mount all of the doors and windows per Marvin Windows' best practices or equivalent.

### 3.02 WOOD DOORS

- A. Provide doors that are straight, free of defects and blemishes, and that have:
  - 1. Smooth edges.
  - 2. Clean joints.
  - 3. Consistent, blemish-free finishes.
  - 4. Correct finish material thickness.
- B. Verify that factory preparation and prefitting follow required hardware templates:
  - 1. Cuts
  - 2. Drilling
  - 3. Routing
  - 4. Accessories
- C. Provide door glazing with:

- 1. Stops as required.
- 2. Labeled safety glass.
- D. Provide fire-rated doors that comply with all building code and fire code requirements:
  - 1. Openings/glass are as required.
  - 2. Hinges are as required.
  - 3. Undercut does not exceed the allowable code maximum.
  - 4. Correct identification labels and/or certification.
  - 5. Correct factory-applied hardware.
  - 6. Automatic closure hardware.
  - 7. Thresholds.
- E. Wood construction and finish for wood doors shall be as shown in Door Schedule.

# 3.03 WINDOWS

- A. Provide windows complete with glazing as per Drawings and Window Schedule.
- B. Windows shall be as manufactured by Marvin Windows and Doors or equivalent.

# PART 4- CONSTRUCTION AND INSTALLATION

# 4.01 PRECONSTRUCTION AND PREPARATION

- A. Examine and verify that job conditions are satisfactory for speedy and acceptable work.
- B. Maintain and use all up-to-date construction documents on site.
- C. Maintain and use up-to-date trade standards and materials supplier's instructions.
- D. Confirm there is no conflict between this work and governing building and safety codes.
- E. Confirm there are no conflicts between this work and work of other trades.
- F. Confirm that work of other trades that must precede this work has been completed.
- G. Store materials safely to avoid damage and located to expedite the work.

NOTE: Ultimate Wood windows must be installed using jamb screws or Structural brackets.

## 4.02 GENERAL

- A. Installing doors:
  - 1. Schedule door installation to avoid construction damage.
  - 2. Hang doors:
  - 3. Straight
  - 4. Level
  - 5. Plumb
  - 6. Smooth in opening
  - 7. Smooth and secure in closing
- B. Mount window and door frames plumb, straight, and securely braced.
- C. Provide clearances below doors as necessary to allow for:
  - 1. Thresholds
  - 2. Weatherstripping
  - 3. Gasketing
- D. Window dimensions and alignments shall be as per Drawings and Window Schedule.
  - 1. Heads and sills are at correct elevations
  - 2. Heads and sills level
  - 3. Jambs at locations dimensioned on plan.
  - 4. Jambs plumb and aligned with other facade elements
- E. Installing windows:
  - 1. Install and tightly secure frame braces and anchors.
  - 2. Install sash free of bends, warps, and dents.
  - 3. Protect clad frames and other materials especially vulnerable to damage.
  - 4. Protect materials from contact with mortar or other sources of staining and chemical damage.
  - 5. Place windows into openings without forcing.
  - 6. Do not use windows at any time as supports or rests for ladders and scaffolds.
  - 7. Prepare weep holes adequate in size and spacing.
  - 8. Keep weep holes clean.
  - 9. Install windows that are weathertight and that allow no air infiltration.
  - 10. Use closures that are uniform and tight when units are closed and locked.

- 11. Install operable windows that open and close smoothly, without rattling or sticking.
- F. Technical Installation Specifications The following details are specified for proper installation and for the unit to meet the advertised design pressure (DP) rating:
  - 1. If using less than a nominal  $2 \times buck$  in masonry openings; the rough opening must be no more than 1/2 wider and 1/4 taller than the outside measurement of the frame.
  - 2. Installation methods are limited to Jamb Screw method using 3/16 concrete screws.
  - 3. For recessed masonry openings: the window frame must not come in direct contact with masonry/concrete/concrete block.
  - 4. Construct framing (if necessary) from treated lumber or plywood and fasten to the masonry opening jambs, header, and sill. This framing must be designed (and anchored to the opening) properly to withstand certified and advertised performance grade (PG) ratings for the particular unit.
  - 5. For installations in concrete block, or masonry construction, etc., follow local codes for sealing and water management details.
  - Properly flash and/or seal all windows 6. exterior perimeter. Sealants used for installation must be Grade NS Class 25 per ASTM C920 and building exterior, compatible with the and flashing/water management exterior surface, materials. Flashing materials must comply with ASTM E2112-01, section 5.13 and be compatible with all materials used in installation including barriers and building papers, sheathing, and the window unit. Flashing material must not contain asphalt and must be compatible with flexible PVC (vinyl) when used in conjunction with nailing fin.
  - 7. Optional foams used for installation must be low expansion only. Foam and foam application must comply with ASTM E2112-01, SEC 5.9.2.
  - 8. Shims are required between the window frame and framing members at all locking points and at every point of attachment (excluding nailing fin and brick mould casing) as well as at all points detailed within these instructions. For units with flat casing install with installation brackets, structural masonry brackets, or jamb screws.
  - 9. Do not use chemically treated products for shim material. Fasteners penetrating chemically treated lumber must be a minimum of 0.90 oz/ft2 zinc hot dipped galvanized or stainless steel type 304 or

316.

10. Clad window frames must not come into direct contact with chemically treated wood products.

## 4.03 ROUGH OPENINGS

- A. Rough Opening Width: 1/4-1 (6-25) wider than window/door frame outside measurement. Rough Opening Height: 1/4-1/2 (6-13) higher than window/door frame outside measurement. Masonry Opening Width: 1/4-1/2 (6-13) wider than window/door frame outside measurement. Masonry Opening Height: 1/8-1/4 (3-6) higher than window/door frame outside measurement.
- B. Plan sizing of rough opening and clearance from exterior finishing systems to allow for normal materials shrinkage or shifting (e.g. wood structure with brick veneer, allow adequate clearance at sill). Failure to do so can void the Marvin warranty coverage or equivalent.
- C. Refer to the Technical Installation Specifications section for technical specifications regarding the installation of this product. These installation requirements as well as the details in this section must be followed to achieve the advertised performance grade (PG) rating of this product.
- D. It is the responsibility of the installer and subcontractors to protect the interior and exterior of windows or doors from excessive contact with harsh chemical washes, construction material contamination and moisture. Damage to glazing, hardware, weatherstrip and cladding/wood can occur. Protect with painters tape and/or protective sheathing as required.
- E. Follow all guidelines regarding material use, preparation, personal safety and disposal.

## 4.04 STANDARD PARTS

- A. Clad units are sent with:
  - 1. Four (4) nailing fin corner gaskets. Follow installation instructions included with part if applicable. Units are sent with a fastening package and supplemental installation instructions.
  - 2. Sealant must be Grade NS Class 25 per ASTM C920 and compatible with building exterior and window surface. Optional, use low expansion foam insulation only. Foam and foam application must comply with ASTM E2112, section 5.9.2. 3APA rated AFG-01 spec

Before You Begin Installer and Builder Information.

# 4.05 ROUGH OPENING AND FRAMING REQUIREMENTS

- A. This section gives requirements for framing and rough opening clearances. Masonry or concrete openings must be lined with a treated wood product (wood buck). You must fasten the buck to the masonry opening in a fashion that will withstand conditions which would be encountered under the certified and advertised PG ratings for this window. The structural integrity of this installation is only as good as the bond between the wood buck and the masonry opening.
  - 1. Use existing buck if it is in usable condition, or on concrete block, masonry, or similar situations, line the sides, head jamb, and sill with treated lumber. Attach the lumber to the masonry opening with construction adhesive and masonry anchors which should penetrate the masonry opening by at least 1"-1 ½".
  - 2. NOTE: Wood buck material thickness may vary. Installations using material less than 2nominal material must use the jamb screw method of attachment and use 3/16 concrete anchors.
- B. If the installation requires screwing through the sill for structural purposes, place a bead of sealant where the screws will penetrate the rigid sill panning.
- C. The window frame must not come in contact with treated lumber. If the installer will not be using rigid panning or shimming at the sill, apply a barrier such as a self-sealing adhesive flashing to the rough opening sill. Be aware that use of rigid sill pans and other barriers will decrease the rough opening height clearance. Adjust opening dimensions accordingly.
- D. Care must be taken to ensure the sill is level and the opening is square, straight and plumb.

# 4.06 UNIT PREPARATION

- A. Remove the protective packaging from the unit and dispose/recycle properly. Inspect unit for any hidden damage.
- B. Remove any shipping clips unless noted otherwise. Do not remove the vinyl shipping blocks or shipping tube assembly until installation is complete unless installing with jamb screws.

- C. Extend nailing fin.
- D. Apply back-caulking to BMC.
- E. If used on clad units, position the factory applied nailing fin/drip cap in the upright position.
- F. On wood units with brick mould casing, apply sealant at the casing to frame joint along the jambs and head jamb, at the sill horn to casing joint, and at the miter corners of the casing. Tool the bead to ensure proper adhesion to both surfaces.
- G. If installing a window with structural brackets, fasten to the window now. Follow the fastener spacing in the "Jamb/Sill Screw Chart". Follow the instructions provided with the brackets for details on how to fasten to unit. Ultimate Double Hung Magnum units are sent with supplemental instructions which detail how to remove the sash and jamb fillers.
- H. If you will be fastening with screws through the jambs, head jambs, and sill, remove your sash and covers or liners at this time.
- I. Install jamb extension before installing the window in the rough or masonry opening. Follow instructions provided with the jamb extension.

### 4.07 INSTALLING THE WINDOWS

- A. Plumb and square unit. The following steps provide details for structural fastening of the window to the opening. When installing windows with nailing fin or wood brick mould casing, it may be desirable to first attach the window using these fastening methods in conjunction with steps 1-5. Then complete the installation by fastening with structural brackets or screws. Always follow fastener spacing outlined per Marvin recommendations or equivalent.
  - 1. If rigid sill pan is not used, pan sill with alternate methods or shim under window sill to ensure it does not come in direct contact with treated lumber.
  - 2. On some larger units such as the Ultimate Double Hung Magnum, it may be necessary to remove the sash prior to installation. See the sash removal section for details
  - 3. Center the window in the opening. Level at the sill and plumb the frame (interior/exterior) to desired

depth.

- 4. Fasten and shim the jambs at the bottom with the appropriate fastener.
- 5. Fasten and shim at the top corners to square the unit in the opening. Take diagonal measurements of the window. When equal, the window is square in the opening. Adjust the shims and fasteners until the unit is square in the opening. Proper shimming is extremely important. Under-shimming or shimming will result in bowed jambs and or head jamb. Both conditions can contribute to improper window operation and performance. On operating units, one method to ensure that the unit installed square is to check the reveal between the operating sash and the frame. An even reveal around the entire sash generally indicates a correctly installed unit and will ensure smooth operation. Measure diagonally for square.
- 6. Complete shimming and fastening per Marvin standards or equivalent.
- 7. Recheck the diagonals one more time to make sure the unit is square in the opening. Adjust fasteners as necessary to bring to square.
- 8. Once the unit is installed square and plumb, check the sash on operable units to make sure it is operating properly. If not, you may have to make additional adjustments to the shims and fasteners.
- 9. If removed, replace your stops, covers, and liners.

### 4.08 ALTERNATE FASTENING METHODS

- A. Although structural installations may involve fastening with wood brick mould casing or nailing fin, there are two ways to fasten jambs to the opening for structural purposes:
  - 1. #8 Wood screws (or 3/16 concrete anchors), 6" from all corners and 15" on center around the perimeter, or
  - 2. Structural brackets, 6" from all corners and 15" on center around the perimeter.
- B. All mulled units require fastening with two screws or brackets on each side of the mull joint no more than 6" from mull joint.

## 4.09 STRUCTURAL BRACKETS

A. Wrap brackets around the framing/buck/opening, fasten with two #8 x 1 5/8" screws. Angle the screws approximately 15 degrees away from the window. Always

shim above or behind installation brackets.

# 4.10 JAMB/SILL SCREWS

- A. Space fasteners along jambs and head jambs no more than 6" from each corner and 15" on center. Follow same spacing for sills when applicable. NOTE: Structural brackets are allowable replacements for screws if fastening at the sill is necessary.
- B. After removing covers or liners, fasten units to the framing with #8 wood screws or 3/16concrete anchors1. Adjust length of fastener so that it penetrates no less than 1 ¼" into framing/opening. When fastening through the sill, always pre-drill and fill hole with sealant before driving the screw. Always place a shim behind or above the screw location on jambs and head jambs. NOTE: When using masonry anchors, be sure to follow manufacturer's guidelines for proper installation. Some types require pre-drilling.
- C. Use concrete anchors when wood buck material is less than 2" nominal thickness.
- D. On Ultimate Casement units, position the screw so that it misses any operating hardware (if applicable). Locate the screw in the center groove in the frame and adjust to the exterior of the kerf that holds the head jamb stop.
- E. On Wood Ultimate Double Hung units, locate the screw in the jamb carrier kerf (jambs) and in the kerf used to hold the parting stop (head jamb). Make sure to countersink the screw so that it doesn't interfere with installation of the jamb liner and/or parting stop.

#### 4.11 FINAL INSTALLATION PROCEDURES

- A. Place a bead of sealant at the wood buck to masonry joint. For recessed masonry applications, seal at the buck to frame joint with appropriate width backer rod and sealant around the entire perimeter. Finish as applicable local code dictates.
- B. For sealing recessed masonry openings, apply a bead of sealant between the brick mould and the masonry at the head jamb and jamb sections. Leave the sill portion unsealed to allow water to escape.
- C. Apply a 1"-2" thick bead of low expansion foam insulation on the back side of the nailing fin, brick mould casing or other trim. Do not apply too much as it is possible to

bow the jambs. Insulate loosely around the window with fiberglass insulation.

D. Interior and mullion trim: Install mullion trim after interior trim or casing is applied. On Wood Ultimate Double Hung units, be sure to use nails and staples that are no longer than 3/4". Place fasteners at least 1" from the edge of interior jamb liner. Insulating the rough opening with Low expansion foam Fiberglass insulation 1.

# 4.12 INSPECTION, REPAIR, AND TOUCH-UP

- A. After installation, inspect all windows and frames to find and repair damage.
- B. Repair or replace any damaged materials as directed by the Manufacturer.
- C. Repair or replace any other materials damaged during installation.
- D. Make undetectable repairs before applying final finish.
- E. Repair or replace any related damaged or non-complying materials.
- F. Repair or replace windows that do not operate freely and smoothly.
- G. Replace any windows that are not in compliance with Specifications.
- H. Any costs for replacing windows for non-compliance will be paid by the Contractor.
- I. Final windows mounted:
  - 1. Square
  - 2. Smooth operating
- J. Protection and repair:
  - 1. Provide barriers or clear separations between dissimilar metals.
  - 2. Protect shop coat treatment from damage.
- K. Touch up damaged shop coats before final painting.
- L. Keep hardware clean.

- M. After installation, protect finishes from physical and chemical damage.
- N. Clean and protect metal and glass after installation.
- O. Make undetectable repairs to damaged materials or finishes.

# PART 5- CLEAN UP

## 5.01 SUMMARY

- A. All work areas are to be kept clean, clear and free of debris at all times.
- B. Do not allow trash, waste, or debris to collect. These items shall be removed on a daily basis.
- C. All tools and unused materials must be collected at the end of each workday and stored properly and protected from exposure to the elements.
- D. Dispose of or recycle all trash and excess material in a manner conforming to current EPA regulations and local laws.
- E. Clean and restore all damaged surfaces to their original condition.

#### PART 6- CONTRACT CLOSEOUT

### 6.01 SUMMARY

- A. The following are prerequisites to substantial completion. Provide the following:
  - 1. Completed punch list and supporting documentation.
  - 2. Signed warranties.
  - 3. Certifications as specified.
  - 4. Occupancy permit from governing agencies as required.
- B. Provide the following prior to final acceptance:
  - 1. Final payment request with supporting affidavits.
  - 2. Completed punch list and supporting documentation.
- C. Provide sets of record drawings showing original design and all changes made during construction.
- D. Provide the following closeout procedures:

- 1. Submit record documents.
- 2. Submit maintenance manuals.
- 3. Complete all repairs, call-backs, corrections, readjustments of equipment, final cleaning, and final touch-up. Remove all temporary facilities, equipment, tools and supplies.

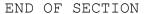
### PART 7- MEASUREMENT AND PAYMENT

# 7.01 MEASUREMENT

Measurement will not be made for the Work specified in this Section.

# 7.02 PAYMENT

- A. Payment for the Work specified in this Section will be made at the lump sum prices for the below listed Items, in the Schedule of Prices:
  - 01 11 00/05, Existing Window and Door Removal and Replacement
- B. These prices shall be full compensation for furnishing all materials, equipment and labor as well as any and all incidentals necessary to complete the Items of Work to provide a complete and operational system.
- C. Payment will not be made for any other items except as listed above. All other costs associated with such Work shall be considered incidental and shall be included in the prices bid for the various items to which they pertain in the Schedule of Prices.





#### PROJECT MEETINGS

### **SECTION 01 31 19**

#### PART 1-GENERAL

#### 1.01 PRECONSTRUCTION CONFERENCE

#### Α. General

Within 10 days after issuance of the Notice to Proceed, a preconstruction conference will be held at the location, date, and time to be designated by the Owner. Contractor shall be readily available to attend this meeting and shall make the necessary arrangements to have those individuals (including subcontractors) experienced and knowledgeable, and who will be in the direct charge of the Work, to also attend the meeting.

#### В. Agenda

The matters to be discussed will include:

- 1. Set final completion date for the Work of this Contract in accordance with Notice to Proceed and identify time period.
- 2. Details of construction sequence, including the bar chart submitted with the Bid, lead times of equipment procurement, as well as the date by which the Contractor must place his/her material or equipment order to complete the Work within the construction schedule time limitations set in Section 00 72 23.
- 3. Communication and general correspondence procedures between the involved parties. The Owner will designate his/her representative and/or Engineer at the time of this meeting.
- 4. The names and titles of all persons authorized by the Contractor to represent and execute documents for the Contractor.
- 5. The names, addresses, and telephone numbers of all those authorized by the Contractor to act for him/her in emergencies. Contractor to provide phone/fax/pager numbers of those individuals who will be available and responsible for the Work on a 24-hour per day basis, 7 days per week.
- 6. Access and rights-of-way furnished by the Owner.

#### PROJECT MEETINGS

- 7. Forms and procedures for Contractor's Submittals as described in Section 01 33 23.
- 8. Construction equipment and methods proposed by the Contractor. The Contractor shall submit a list of equipment to be used in the Work.
- 9. Administrative and general matters as needed.
- 10. Parking areas for public and Contractor.
- 11. Subcontractors.
- 12. Payment estimates and submittals for payment.
- 13. Progress meetings during the course of the Work.

# 1.02 WEEKLY CONSTRUCTION MEETINGS

Construction meetings shall be held once every week or more frequently as needed or called by the Contractor or the Owner. All matters bearing on the progress and performance of the Work since the preceding progress meetings shall be discussed and resolved, including, without limitation, any previously unresolved matters, deficiencies in the Work or the methods being employed for the Work, and problems, difficulties, or delays which may be encountered, in order that the Work may be constructed on schedule and within cost.

# PART 2- PRODUCT

Minutes of construction meetings shall be prepared by the Contractor subject to the review of the Owner or Owners Representative having participated in the meeting.

### PART 3- EXECUTION

Minutes of construction meetings shall be submitted to the Owner or Owners Representative no later than 72 hours following the meeting.

# PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All cost of such Work shall be considered incidental and shall be included in the prices bid for the various items to which they pertain in the Schedule of Prices.

END OF SECTION

#### MATERIAL AND EQUIPMENT

### **SECTION 01 33 16**

#### PART 1- GENERAL

## 1.01 SCOPE

# A. <u>Description</u>

This Section covers minimum general requirements related to and including, but not limited to the following:

- 1. Products.
- 2. Transportation and handling.
- 3. Storage and protection.
- 4. Product options.
- 5. Substitutions.

## B. Related Work

- 1. All Sections of the Contract Documents including Bidding Documents and Drawings.
- 2. Refer to related Specification Sections for details.

#### 1.02 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing facilities or premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer, for similar components.

# 1.03 TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct and products are

#### MATERIAL AND EQUIPMENT

undamaged.

C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement or damage.

# 1.04 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Provide off-site storage and protection when site does not permit on-site storage or protection.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area. Do not allow mixing with foreign matter.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

# 1.05 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications.

## 1.06 SUBSTITUTIONS

- A. Owner will consider requests for Substitutions only at time of Bid. Where Specifications indicate "No Substitutions Allowed", the Contractor shall provide the designated manufacturers equipment without exception.
- B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- C. Document request with complete data substantiating compliance of proposed Substitution with Contract Documents.

#### MATERIAL AND EQUIPMENT

- D. A request constitutes a representation that the Contractor:
  - Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the Substitution as for the specified product.
  - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
  - 5. Will reimburse Owner for review or redesign services associated with re-approval by authorities.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
  - 1. Submit three copies of request for Substitution for consideration 10 days prior to bid date. Limit each request to one proposed Substitution.
  - 2. Submit shop drawings, product data and certified test results attesting to the proposed product equivalence.
  - 3. The Owner will notify Contractor, in writing, of decision to accept or reject request.

END OF SECTION

## **SECTION 01 33 23**

# PART 1- GENERAL

## 1.01 SCOPE

- A. This Section establishes minimum requirements and procedures for Equipment Submittals made by the Contractor for materials and equipment provided for under the Work of this Contract. Specific details for additional drawings, data and information to be submitted shall be in accordance with the applicable requirements of other Sections of these Specifications.
- B. Acceptable Manufacturers and Equipment Suppliers for various items of equipment are specified in respective Sections of these Contract Documents. For convenience of designation in the Contract Documents, certain equipment, articles, materials, and processes are designated by manufacturer trade name or catalog name and number. Such designation shall be deemed to be followed by the words "or equal" whether such words are shown or not. The Contractor may offer material or processes which are equal to that so indicated or specified at the time of Bid. The burden of proof as to comparative quality and suitability of alternatives shall be upon the Contractor. Specified items are preferred.

# 1.02 SUBMITTAL SCHEDULE

The Contractor shall, within 10 days after receiving the Notice to Proceed, prepare and submit for review a detailed list of all the submittals which he/she proposes to make to meet the requirements stated herein and those cited in other Sections of the Contract Documents including the dates on which he/she proposes to make such submittals. The list shall include Working Drawings, Field Detail Drawings, Project Record Documents, Quality Control Procedures, and all other items for which a submittal is required. The list shall include identifying references for each item to relate it to the specific item of the Contract Documents.

With each revision or certification of the Construction Schedule, the Contractor shall either revise this schedule of submittals and submit it for review or certify that the previously furnished schedule is still in effect.

After the Submittal Schedule is reviewed by the Owner's Representative, it shall become the basis for the submittal of all items by the Contractor.

# 1.03 SUBMITTAL REQUIREMENTS

#### A. General

The Contractor shall furnish for review his/her Submittals as outlined herein and in the Specifications. Submittals shall confirm compliance with the requirements of the Contract Documents. Submittals of equipment drawings shall be made prior to the fabrication of the equipment. The sequence of submission shall be such that information is available for review of each Submittal when it is received. All Submittals furnished formally shall bear an approval stamp or a certification. The stamp or certification shall be signed by an authorized representative of the Contractor. The Contractor's stamp or certification on any Submittals shall constitute a representation to the Owner that the Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data, or that he/she assumes full responsibility for doing so, and that he/she has reviewed and coordinated each Submittal with the requirements of the Contract Documents. Before submitting any drawings for review, the Contractor shall obtain approval of the list of drawings he/she proposes to submit, showing sequence of submittal and submittal dates. All drawings shall be submitted in accordance with the Submittal Schedule as previously specified herein.

B. All submittals shall be addressed to the Owner or as otherwise directed by the Owner.

# C. Outline Drawings

The Contractor shall submit outline drawings of the equipment to be furnished together with estimated weights, operating forces, external forces, anchoring details, and sufficient overall dimensions, to facilitate preparation of final designs of the structures into which the equipment is to be incorporated.

### D. Wiring Diagrams

The Contractor shall submit complete schematic and full-line wiring diagrams for all equipment furnished by him/her. The Contractor shall furnish drawings of switch developments for all instrument and control switches and internal connection diagrams for all instruments, relays, regulators, and other devices. One print of each wiring diagram will be returned on which will be marked the wire notations and cable numbers for outgoing circuits where this information is not otherwise available to the Contractor. The Contractor shall add this

information to his/her drawings. Adequate space shall be allowed on the wiring diagrams to accomplish this.

# E. Detail Drawings and Erection Drawing

Before proceeding with fabrication or manufacture of the material and equipment designed and furnished by him/her, the Contractor shall submit the designs, design computations when requested, apparatus ratings, detailed specifications, general assembly drawings, sufficient subassembly drawings, details, and control and wiring diagrams to demonstrate fully that all parts will conform to the provisions and intent of the Contract Documents and to the requirements of their installations, operations, and maintenance. These drawings shall substantially conform to the Bid and Contract Drawings and shall show all necessary dimensions; all field joints and subassemblies in which the Contractor proposes to ship the equipment; locations and sizes of auxiliary connections for oil, grease, water and air; and the terminal boxes and wire sizes for electrical circuits. Before proceeding with fabrication or purchase, the Contractor shall submit shop drawings and/or catalog cuts as appropriate of items designed but not detailed on the Contract Drawings including, but not limited to structural steel and metal frames, covers, and gratings.

## F. Field Detail Drawings

Layout drawings for any and all embedded components of the equipment such as but not limited to, piping, conduit, anchor bolts/plates, thimbles, etc. shall be submitted. These drawings shall be based on the Contract Drawings and shall contain sufficient detail for construction in the field.

# G. Review of Drawings

- 1. The Contractor shall make all required submittals in .pdf format. All drawings submitted shall, insofar as practicable, be of one standard size, measuring approximately 24 x 36 inches. The Contractor's drawings shall have a blank area of 4 x 4 inches adjacent to the drawing title block for the review stamp of the Owner's Representative. The Contractor shall verify by inspection of sample reproductions that good legible reproductions can be obtained from the reproducible before submittal.
- 2. Within two weeks of receipt of shop drawings or manufacturer's data, the Owner's Representative will return one copy of each drawing and/or data sheet marked to indicate the result of the Owner's Representative's

review, as follows:

- "REVIEWED" Revision of drawing or data will not a. be required.
- "REVIEWED WITH CORRECTIONS" Contractor shall b. revise the drawings or data and shall submit four print copies and one reproducible copy for Owner's Representative's records.
- "REVISE AND RESUBMIT" Contractor shall revise the C. drawing or data and shall resubmit the revised drawing or data to the Owner's Representative for review.
- d. "REJECTED" - Drawings are non-conforming and do not meet intent of Specifications.
- Copies marked "REVIEWED" or "REVIEWED WITH CORRECTIONS" 3. authorize the Contractor to proceed with construction or fabrication covered by those drawings or data sheets with corrections, if any, incorporated.
- 4. Review will not relieve the Contractor of responsibility for conformity to the Contract Documents and correct detail and fit of parts when installed.
- 5. If minor revisions are made after a drawing has been returned to the Contractor marked "REVIEWED", the Contractor shall furnish without delay one print copy and one reproducible copy subsequent to each revision. No major revision affecting the design shall be made after a drawing has been marked "REVIEWED" without resubmitting the drawing.
- When prints of drawings have been marked "REVIEWED WITH 6. CORRECTIONS" or "REVISE AND RESUBMIT" the Contractor shall make the necessary corrections and submit four print copies and one paper-type reproducible. Every revision shall be shown by number, date, and subject in a revision block, and in addition, each revised drawing shall have its latest revision clearly indicated. Submitted drawings which do not illustrate these indications will be considered non-conforming.
- 7. The applicable parts of the requirements of the above paragraphs with reference to the drawings shall apply equally to design data, catalog cuts, illustrations, printed specifications, draft reports or any other submittals furnished for review.

### EQUIPMENT & MATERIAL SUBMITTALS

- 8. The Contractor shall make any changes in the designs which are necessary to make the equipment conform to the provisions and intent of the Contract Documents, without additional cost to the Owner.
- 9. Should an error be found in a Contractor's drawing during the erection of structures or installation of equipment, the correction, including any field changes found necessary, shall be noted on the drawing, and it shall be resubmitted for review, and recorded as outlined above.

# H. Record Drawings

Prior to completion of the Work under the Contract Documents, the Contractor shall furnish one complete set of full-size permanent reproducible copies of approved quality and type and 3 full size sets of prints of all Contractor's drawings and equipment as finally built, including any field changes.

### I. Operating and Maintenance Instructions

- 1. Two hard copy sets and one .pdf version of detailed operating and maintenance instruction manuals which shall include reduced-size copies of applicable drawings, applicable parts lists and catalogs covering all equipment furnished and which may be needed or useful in operation, maintenance, repairs, dismantling or assembling, and for repair and identification of parts for ordering replacements, shall be furnished as specified.
- 2. Furnish operation and maintenance manuals for the various types of equipment and systems, as required by the Contract Documents. Unless otherwise indicated, a separate manual shall be furnished for each piece of equipment and/or system. The manual shall include complete information necessary to operate, maintain and repair the equipment and/or system and shall include the following specific requirements:
  - a. Table of contents and index.
  - b. Brief description of the equipment/system and principal components.
  - c. Starting and stopping procedures both normal and emergency.
  - d. Installation, maintenance and overhaul instructions which shall include detailed assembly

### EQUIPMENT & MATERIAL SUBMITTALS

drawings with parts list and numbers, and recommended spare parts list with recommended quantity, manufacturer's price, suppliers address and telephone number.

- e. Recommended schedule for servicing including technical data sheets that indicate weights and types of oil, grease or other lubricants recommended for use and their application procedures.
- f. One copy of each component wiring diagram and the system wiring diagram showing wire size and identification.
- g. One approved copy of each submittal with any changes made during construction properly noted including test certificates, characteristic curves, factory and field test results.
- h. For electrical systems include dimensioned installation drawings, single line diagrams, control diagrams, wiring and connection diagrams, list of material for contactors, relays and controls, outline drawings showing relays and controls, outline drawings showing relays, meters, controls and indication equipment mounted on the equipment or inside cubicles, control and protective schematics and recommended relay settings.
- 3. Submittal Requirements: One preliminary copy of the manual in .pdf format shall be submitted no later than the date of shipment of equipment, and installation shall not begin until they are accepted by the Owner's Representative. One approved hard copy and one in .pdf format of complete manual shall be delivered to the Owner's Representative prior to Owner's Representative inspections and tests.

### J. Language

All drawings, design data, reports, instructions, catalogs, illustrations, and printed specifications shall be submitted in English.

# K. System of Units of Measurement

All units of measurement used shall be in the U.S. Customary System.

### EQUIPMENT & MATERIAL SUBMITTALS

#### PART 2-PRODUCTS

(Refer to Paragraph 1.03, Submittal Requirements, of this Section.)

#### PART 3-EXECUTION

(Refer to Paragraph 1.02, Submittal Schedule, of this Section.)

#### PART 4-MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs of such Work shall be considered incidental and shall be included in the prices bid for the various items to which they pertain in the Schedule of Prices.

### SPECIAL PROJECT PROCEDURES

### **SECTION 01 35 13**

### PART 1- GENERAL

# 1.01 SCOPE

This Section establishes certain minimum requirements for special project procedures unique to the area which the Contractor shall be responsible for during the execution of the Work of this Contract.

# 1.02 CONTRACTOR CONDUCT

The Contractor and all of the Contractor's personnel shall at all times behave and conduct themselves professionally in every way and manner when performing the Work of this Contract. Any conduct deemed unbecoming and/or non-professional shall be grounds for immediate discharge of the individuals behaving in said manner.

### PART 2- PRODUCTS

(Not applicable to this Section.)

### PART 3- EXECUTION

# 3.00 CONTRACTOR'S SITE SUPERVISOR

A. The Contractor shall be responsible for providing a full-time site supervisor, who shall be fluent in English and skilled in all phases of the Work of this Contract. The Contractor's site supervisor shall act as a liaison between the general public and users of the facility who may be affected in some way by this Project, and shall be on-site and available whenever Work of this Project is being performed. The Contractor's site supervisor shall be experienced in the actual Work to be performed.

# 3.01 GENERAL NOTIFICATION

The Contractor shall notify Christopher B. Burke Engineering, Ltd. at 847-823-0500, attention: Mr. Travis Parry and the **City of Blue Island** at (708) 597-8603, Mr. Tom Wogan, City Administrator, at least two (2) working days (48 hours) in advance of commencement of construction. (Notification to the Engineer and Owner shall be in writing.)

# 3.02 NOTICE TO GENERAL PUBLIC

Whenever the Contractor anticipates starting Work, whether at the beginning of the Contract or starting a phase, or after

### SPECIAL PROJECT PROCEDURES

any cessation of Work, the Contractor shall at least two (2) working days (48 hours) prior to starting said Work, post notifications at the Work site location. Such notifications shall first be approved by the **City**.

The Contractor shall also notify users of the facility, individual property owner's and/or tenants in close proximity of anticipated Work and/or affected in any way (either directly or indirectly) by the Work. Such notification shall be coordinated with the **City** prior to notification.

The Contractor shall utilize an approved Notification Form for notification. An example copy of this Notification Form shall be subject to the review of the Owner and the Owner's Representative. The Contractor shall submit a copy of the proposed Notification Form for review at the Preconstruction Meeting in accordance with Section 00 72 23.

# 3.03 PROPERTY ACCESS

The Contractor shall be required to provide access to **City Hall** at all times during construction operations.

# 3.04 LANDSCAPE & TREE PROTECTION

Protect all landscaping and trees as may be required.

# 3.05 INITIAL CLEAN-UP

All garbage and debris shall be removed from the site daily in accordance with the applicable requirements of Section 01 74 16, Maintenance of Work Site and Daily Clean-Up. Under no circumstances shall any type of garbage or debris be placed in containers other than as provided by the Contractor.

All pavement areas shall be kept clear and clean on a daily basis during the course of the Work.

### MOBILIZATION AND DEMOBILIZATION

# **SECTION 01 71 13**

# PART 1- GENERAL

# 1.01 MOBILIZATION

Mobilization shall include, but is not necessarily limited to the following:

Moving of construction materials, tools, supplies, equipment, accessories, and personnel to the job site.

Setting up the Contractor's complete construction/ erection equipment, and other construction facilities.

# 1.02 DEMOBILIZATION

Demobilization shall include the removal from the job site of all construction/erection equipment, equipment and accessories, materials, supplies, appurtenances, construction debris, and the like upon completion of the Work.

# 1.03 NOTIFICATION

Provide Owner and **Owner's Representative** 48 hours advance notice of any mobilization/demobilization activities.

### CUTTING AND PATCHING

### **SECTION 01 73 29**

### PART 1- GENERAL

# 1.01 SCOPE

This Section covers cutting and patching where required to perform the Work of these Contract Documents.

# 1.02 QUALITY ASSURANCE

Cutting and patching shall be performed in accordance with recognized and applicable standards of construction using materials equal to or exceeding those of the parent structure.

### 1.03 SUBMITTALS

A. Before doing any cutting as required to complete the Work, submit a written notice to Owner's Representative, and the Owner of the specific item involved requesting consent, including:

Description of affected work

Necessity for cutting

Scope of cutting and patching

Trades and products to be used and extent of refinishing

B. Prior to doing cutting and patching identified in writing by Owner's Representative as additional work, submit a cost estimate.

### PART 2- PRODUCT

Materials used for replacement of work removed shall be of the same type, style, size, thickness, etc. of like new materials for the type of work to be performed.

# PART 3- EXECUTION

### 3.01 GENERAL

- A. Perform all cutting and patching required to complete the Work.
- B. Cutting and patching shall include the cutting, fitting, or patching necessary to:

### CUTTING AND PATCHING

- 1. Accomplish/perform modifications to existing structures as shown on the Drawings.
- 2. Remove and replace defective or deteriorated work.
- 3. Remove and replace work not conforming to the Contract Documents.
- C. All Work shall be performed by skilled workers licensed to perform the Work of the trade involved and/or as may be required.

### 3.02 EXECUTION

- A. Protect adjacent portions of the Work and existing facilities from damage due to cutting and patching operations.
- B. Restore work which has been cut or removed. Install new products to provide completed Work meeting all requirements of the Contract Documents.
- C. Refinish entire surfaces as necessary to provide an even and uniform finish.

### MAINTENANCE OF WORK SITE & DAILY CLEAN-UP

### **SECTION 01 74 16**

# PART 1- GENERAL

This Section covers general maintenance of the Work Site and daily clean-up which the Contractor shall be responsible for the duration of the Project, and includes, but is not limited to storage, stockpiling and/or protection of materials and Work.

### PART 2- PRODUCTS

(Not applicable to this Section.)

### PART 3- EXECUTION

### 3.00 GENERAL

Contractor shall comply with all applicable requirements specified in Section 00 72 23.

# 3.01 MAINTENANCE OF WORK SITE

The Contractor shall keep the site of the Work and adjacent premises as free from material, debris and rubbish as is practicable, and shall remove same from any portion of the site, if, in the opinion of the Owner's Representative, such material, debris, or rubbish constitutes a nuisance or is objectionable in any way to the public. The Contractor shall remove all machinery, materials, barricades, staging, false-work, debris and rubbish connected with, or caused by said Work, immediately upon the completion of the same and shall clean all structures and Work constructed under this Contract to the satisfaction of the Owner's Representative and leave the premises in an approved condition insofar as affected by the Work under this Contract.

# 3.02 DAILY CLEAN-UP

Each day before the Contractor shuts down Work operations for the day, the Contractor shall clean all areas in/around/adjacent to the Work site of all dirt, mud, debris, or other items deposited thereupon resulting from the Work.

# 3.03 RESPONSIBILITY FOR PROTECTION OF MATERIALS

The Contractor shall be responsible for the safe storage of all equipment and materials furnished by, or to, or accepted by the Contractor, and intended for the Work until such equipment or material has been incorporated into the completed Project. Such equipment and materials as well as their related

### MAINTENANCE OF WORK SITE & DAILY CLEAN-UP

appurtenances and accessories shall, unless otherwise directed by the Owner, be unloaded at the "staging site" point of delivery, hauled to, and distributed as necessary to the specific Work site of the Project, by the Contractor. They shall at all times be handled with care to avoid damage.

All construction shall be protected by the Contractor to prevent accidental or pre-meditated damage. All cost associated with the supervision, the repair, or the replacement of damaged areas shall be considered incidental to the Contract.

#### 3.04 STOCKPILING MATERIAL

Materials shall be so stockpiled as not to endanger the Work and so that free access may be had at any time to all parts of the Work, and shall be kept neatly piled so as not to inconvenience public travel, private property owners, or adjoining tenants.

At no time shall material be stored in the street.

### FINAL INSPECTION AND ACCEPTANCE

### **SECTION 01 80 00**

# PART 1- GENERAL

- 1.01 Upon completion of all Work specified in the Contract Documents, the Contractor shall perform final field alignments, adjustments, and tests to verify that the overall performance as specified have been satisfied. Acceptance tests conducted on the completed installation will be witnessed and subject to the approval of the Owner's Representative.
- 1.02 When all Work has been completed and the equipment has been installed, tested, placed into operation, and subsequently has satisfactorily operated, a thorough inspection will be made by the Owner in the company of the Contractor and the Owner's Representative, and if the Work is found to comply with the Specifications, the Work will be formally accepted and the Contractor so notified in writing as to the Final Acceptance of the Work by the Owner.
- 1.03 Should any Work be found to be inadequate, faulty, or otherwise not in accordance with these Specifications, it shall be the Contractor's responsibility to correct such Work at the Contractor's own expense, prior to Final Acceptance.
- 1.04 The period of equipment and workmanship guarantees shall commence immediately after Final Acceptance. Upon being notified of the Final Acceptance, the Contractor shall supply, to the Owner, a certificate of guarantee which shall guarantee all equipment and workmanship for a period of not less than one year or as otherwise specified in subsequent Sections of the Specifications. Guarantees shall be unconditional. Limited guarantees are not acceptable.

### PART 2- PRODUCT

A "Final Inspection" report prepared by the Contractor shall be submitted to the Owner's Representative documenting the results of the Final Inspection.

### PART 3- EXECUTION

Advise Owner's Representative a minimum of 72 hours prior to performing the Final Inspection.

# PART 4- MEASUREMENT AND PAYMENT

Separate measurement or payment will not be made for the Work specified in this Section. All costs of such Work shall be considered incidental and shall be included in the prices bid

# FINAL INSPECTION AND ACCEPTANCE

for the various items to which they pertain in the Schedule of Prices.

# **SECTION 06 10 63**

### PART 1- GENERAL

# 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

# 1.02 SUMMARY

### A. Section Includes:

1. Elevated decks including support framing.

# B. Related Sections:

- 1. Division 06 Section "Exterior Finish Carpentry."
- 2. Division 07 Section "Standing Metal Seam Roofing" for sheet metal flashing used with exterior rough carpentry.

# 1.03 DEFINITIONS

- A. <u>Boards</u>: Lumber of less than 2 inches nominal in thickness and 2 inches nominal or greater width.
- B. <u>Dimension Lumber</u>: Lumber of 2 inches nominal or greater but less than 5 inches nominal in least dimension.
- C. <u>Timber</u>: Lumber of 5 inches nominal or greater in least dimension.
- D. Lumber grading agencies, and the abbreviations used to reference them, include the following:
  - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
  - 2. NLGA: National Lumber Grades Authority.
  - 3. RIS: Redwood Inspection Service.
  - 4. SPIB: The Southern Pine Inspection Bureau.
  - 5. WCLIB: West Coast Lumber Inspection Bureau.
  - 6. WWPA: Western Wood Products Association.

# 1.04 ACTION SUBMITTALS

A. <u>Product Data</u>: For preservative-treated wood products and metal framing anchors.

- 1. For preservative-treated wood products, include chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
- 2. For metal framing anchors, include installation instructions.

# 1.05 INFORMATIONAL SUBMITTALS

### A. Material Certificates:

- 1. For lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by ALSC's Board of Review.
- 2. For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
- B. <u>Certificates of Inspection</u>: Issued by lumber grading agency for exposed wood products not marked with grade stamp.

### C. Evaluation Reports:

- 1. Preservative-treated wood products.
- 2. Plastic decking.
- 3. Expansion anchors.
- 4. Metal framing anchors.
- 5. Decking fasteners.

### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store materials under cover and protected from weather and contact with damp or wet surfaces. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.
- B. Handle and store plastic lumber to comply with manufacturer's written instructions.

### PART 2- PRODUCTS

# 2.01 LUMBER, GENERAL

A. <u>Lumber</u>: Comply with DOC PS 20 and with applicable rules of grading agencies indicated. If no grading agency is

indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by ALSC's Board of Review. Provide lumber graded by an agency certified by ALSC's Board of Review to inspect and grade lumber under the rules indicated.

- 1. Factory mark each item with grade stamp of grading agency.
- 2. For items that are exposed to view in the completed Work, mark grade stamp on end or back of each piece or omit grade stamp and provide certificates of grade compliance issued by grading agency.
- 3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry wood products.
- 4. Provide dressed lumber, S4S, unless otherwise indicated.
- B. <u>Certified Wood</u>: Wood products shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."

### 2.02 DIMENSION LUMBER

- A. <u>Maximum Moisture Content</u>: 15 percent for 2-inch nominal thickness or less.
- B. Exposed Lumber: Provide material hand selected for freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot holes, shake, splits, torn grain, and wane.
- C. <u>Framing</u>: Structural No. 1 grade and the following species:
  - 1. Hem-fir (North); NLGA.
  - 2. Southern pine; SPIB.
  - 3. Douglas fir-larch; WCLIB or WWPA.
  - 4. Mixed southern pine; SPIB.
  - 5. Spruce-pine-fir; NLGA.
  - 6. Douglas fir-south; WWPA.
  - 7. Hem-fir; WCLIB or WWPA.
  - 8. Douglas fir-larch (North); NLGA.
  - 9. Spruce-pine-fir (South); NeLMA, WCLIB, or WWPA.
- D. <u>Framing</u>: Any species and grade with a modulus of elasticity of at least 1,000,000 psi for 2-inch nominal

thickness and 12-inch nominal width for single-member use.

- E. <u>Dimension Lumber Decking</u>: No. 2 grade and any of the following species:
  - 1. Hem-fir or hem-fir (North); NLGA, WCLIB, or WWPA.
  - 2. Douglas fir-larch, Douglas fir-larch (North), or Douglas fir-south; NLGA, WCLIB, or WWPA.
  - 3. Mixed southern pine; SPIB.
  - 4. Redwood; RIS.

# 2.03 BOARDS

- A. Maximum Moisture Content: 15 percent.
- B. Provide boards hand selected for freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot holes, shake, splits, torn grain, and wane.
- C. <u>Decking</u>: 1-1/4-inch thick radius-edged decking of[ any of] the following species and grades:
  - 1. Douglas fir-larch or Douglas fir-south, [Patio 1] [Patio 2], WWPA.
  - Douglas fir-larch, [Select Dex] [Commercial Dex], WCLIB.
  - 3. Douglas fir-larch (North), [Select Patio] [Commercial Patio], NLGA.
  - 4. Hem-fir, [Patio 1] [Patio 2], WWPA.
  - 5. Hem-fir, [Select Dex] [Commercial Dex], WCLIB.
  - 6. Hem-fir (North), [Select Patio] [Commercial Patio], NLGA.
  - 7. Redwood, [Heart Clear] [Heart B or Select Heart]; RIS.
  - 8. Southern pine, [Premium] [Standard], SPIB.
  - 9. Western red cedar, [Patio 1] [Patio 2], WWPA.
  - 10. Western red cedar, [Select Dex] [Commercial Dex], WCLIB.
  - 11. Western red cedar (North), [Select Patio] [Commercial Patio], NLGA.

### 2.04 TIMBER

- A. Maximum Moisture Content: 19 percent.
- B. <u>Dressing</u>: Provide dressed timber unless otherwise indicated.

# 2.05 PRESERVATIVE TREATMENT

- A. Pressure treat boards and dimension lumber with waterborne preservative according to AWPA C2.
- B. Pressure treat timber with waterborne preservative according to AWPA C15 requirements for "sawn building poles and posts as structural members."
  - 1. Treatment with CCA shall include post-treatment fixation process.
- C. <u>Preservative Chemicals</u>: Acceptable to authorities having jurisdiction.
  - 1. Do not use chemicals containing arsenic or chromium.
- D. Use process that includes water-repellent treatment.
- E. Use process that does not include water repellents or other substances that might interfere with application of indicated finishes.
- F. After treatment, redry lumber to 19 percent maximum moisture content.
- G. Mark treated wood with treatment quality mark of an inspection agency approved by ALSC's Board of Review.
  - 1. For items indicated to receive a stained or natural finish, mark each piece on surface that will not be exposed.
- H. <u>Application</u>: Treat all exterior rough carpentry unless otherwise indicated.
  - 1. Framing members less than 18 inches.
  - 2. Sills and ledgers.
  - 3. Members in contact with masonry or concrete.
  - 4. Posts.
  - 5. Round wood poles.
  - 6. Decking.
  - 7. Stair treads.

### 2.06 FASTENERS

A. <u>General</u>: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.

- 1. Use fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M or ASTM F 2329 unless otherwise indicated.
- 2. For pressure-preservative-treated wood, use stainless-steel fasteners.
- 3. For wood decking, use stainless-steel fasteners.
- B. Nails: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Lag Screws: ASME B18.2.1 (ASME B18.2.3.8M).
- F. Carbon-Steel Bolts: ASTM A 307 (ASTM F 568M) with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers all hot-dip zinc coated.
- G. Stainless-Steel Bolts: ASTM F 593, Alloy Group 1 or 2 (ASTM F 738M, Grade A1 or A4); with ASTM F 594, Alloy Group 1 or 2 (ASTM F 836M, Grade A1 or A4) hex nuts and, where indicated, flat washers.

### 2.07 METAL FRAMING ANCHORS

- A. <u>Manufacturers</u>: Subject to compliance with requirements, provide products by one of the following:
- B. <u>Basis-of-Design Products</u>: Subject to compliance with requirements, provide products by one of the following:
  - 1. Cleveland Steel Specialty Co.
  - 2. Harlen Metal Products, Inc.
  - 3. KC Metals Products, Inc.
  - 4. Simpson Strong-Tie Co., Inc.
  - 5. Southeastern Metals Manufacturing Co., Inc.
  - 6. USP Structural Connectors.
- C. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those of basis-of-design products. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.
- D. <u>Galvanized-Steel Sheet</u>: Hot-dip, zinc-coated steel sheet complying with ASTM A 653/A 653M, G60 coating designation.

- E. Stainless-Steel Sheet: ASTM A 666, Type 316.
- F. <u>Joist Hangers</u>: U-shaped, with 2-inch long seat and 1-1/4-inch wide nailing flanges at least 85 percent of joist depth.
  - 1. Thickness: 0.050 inch.
- G. <u>Top Flange Hangers</u>: U-shaped joist hangers, full depth of joist, formed from metal strap with tabs bent to extend over and be fastened to supporting member.
  - 1. Strap Width: 1-1/2 inches.
  - 2. Thickness: 0.050 inch.
- H. <u>Joist Ties</u>: Flat straps, with holes for fasteners, for tying joists together over supports.
  - 1. Width: 3/4 inch.
  - 2. Thickness: 0.050 inch.
  - 3. Length: 16 inches.

### 2.08 CONCEALED DECKING FASTENERS

- A. <u>Deck Splines</u>: Plastic splines designed to fit in grooves routed into the sides of decking material and be fastened to deck framing with screws. Splines provide uniform spacing of decking material.[ Splines are made from UV-resistant polypropylene.]
  - 1. Products: Subject to compliance with requirements, provide the following that may be incorporated into the Work include, but are not limited to, the following:
    - a. Blue Heron Enterprises, LLC.; Eb-Ty Hidden Deck-Fastener.
    - b. KK Mfg. Co., Inc.; Lumber Loc Hidden Deck Fasteners.
- B. <u>Deck Clips</u>: Black oxide coated stainless-steel clips designed to be fastened to deck framing with screws, and to secure decking material with teeth that also provide uniform spacing of decking material.
  - 1. Products: Subject to compliance with requirements, provide the following may be incorporated into the Work include, but are not limited to, the following:
    - a. Tiger Claw Inc.; Tiger Claw Hidden Deck Fasteners.

- C. <u>Deck Tracks</u>: Formed metal strips designed to be fastened to deck framing and to secure decking material from underside with screws. Made from [epoxy powder-coated, hot-dip galvanized steel] [stainless steel].
  - Products: Subject to compliance with requirements, provide the following that may be incorporated into the Work include, but are not limited to, the following:
    - a. Grabber Deckmaster, a division of John Wagner Associates, Inc.; Deckmaster.
    - b. Ty-Lan Enterprises Inc.; Shadoe Track.

### PART 3- EXECUTION

# 3.01 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.02 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.
- B. Prime lumber to be painted, including both faces and edges. Cut to required lengths and prime ends. Comply with requirements in Division 09 Section "Exterior Painting."

# 3.03 INSTALLATION, GENERAL

- A. Set exterior rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit exterior rough carpentry to other construction; scribe and cope as needed for accurate fit.
- B. <u>Framing Standard</u>: Comply with AF&PA's "Details for Conventional Wood Frame Construction" unless otherwise indicated.
- C. Install wood decking with crown up.
- D. Secure decking to framing with concealed decking fasteners.

- E. Install metal framing anchors to comply with manufacturer's written instructions.
- F. Do not splice structural members between supports unless otherwise indicated.
- G. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
- H. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- I. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
  - 1. Use inorganic boron (SBX) for items that are continuously protected from liquid water.
  - 2. Use copper naphthenate for items not continuously protected from liquid water.
- J. Securely attach exterior rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
  - 1. NES NER-272 for power-driven fasteners.
  - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
  - 3. Table 23-II-B-1, "Nailing Schedule," in ICBO's Uniform Building Code.
  - 4. Table 2305.2, "Fastening Schedule," in BOCA's BOCA National Building Code.
  - 5. Table 2306.1, "Fastening Schedule," in SBCCI's Standard Building Code.
  - 6. Table R602.3(1), "Fastener Schedule for Structural Members".
- K. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view. Make tight connections between members. Install fasteners without splitting wood; do not countersink nail heads unless otherwise indicated.
- L. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered. END OF SECTION

### **SECTION 06 40 13**

### PART 1- GENERAL

# 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

# 1.02 SUMMARY

- A. This Section includes the following:
  - Exterior standing and running trim.
  - 2. Exterior ornamental work.
  - 3. Shop priming exterior woodwork.
  - 4. Shop finishing exterior woodwork.
- B. Related Sections include the following:
  - 1. Division 06 Section "Rough Carpentry" for exposed framing.

# 1.03 ACTION SUBMITTALS

- A. <u>Product Data</u>: For each type of product and process indicated and incorporated into items of exterior architectural woodwork during fabrication, finishing, and installation.
  - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.
  - 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.

### B. LEED Submittals:

1. Certificates for Credit MR 6 or Credit MR 7: Chain-of-custody certificates indicating that wood products comply with forest certification requirements. Include documentation that manufacturer is certified for chain of custody by an FSC-accredited certification body. Include statement indicating cost for each certified wood product.

- C. <u>Shop Drawings</u>: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
  - 1. Show details full size.
  - 2. Show locations and sizes of blocking and nailers, including concealed blocking and reinforcement specified in other Sections.
  - 3. Apply WI-certified compliance label to first page of Shop Drawings.

# D. Samples for Verification:

- 1. Lumber for exterior wood stain finish, not less than 50 sq. in. (300 sq. cm), for each species, with 1/2 of exposed surface finished.
- 2. Lumber for transparent finish, not less than 50 sq. in. (300 sq. cm), for each species, with 1/2 of exposed surface finished.
- 3. Lumber and panel products for shop-applied opaque finish, 8 by 10 inches (200 by 250 mm) for panels and 50 sq. in. (300 sq. cm) for lumber, for each finish system and color, with 1/2 of exposed surface finished.

# 1.04 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and fabricator.
- B. <u>Product Certificates</u>: For each type of product, signed by product manufacturer.
- C. <u>Woodwork Quality Standard Compliance Certificates</u>: AWI Quality Certification Program certificates.

# 1.05 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance. Shop is a certified participant in AWI's Quality Certification Program.
- B. <u>Installer Qualifications</u>: Fabricator of products, Certified participant in AWI's Quality Certification Program, [Licensee of WI's Certified Compliance Program.
- C. <u>Quality Standard</u>: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of exterior architectural woodwork indicated for

construction, finishes, installation, and other requirements.

- 1. Provide AWI Quality Certification Program certificates indicating that woodwork, including installation, complies with requirements of grades specified.
- D. <u>Quality Standard</u>: Unless otherwise indicated, comply with WI's "Manual of Millwork" for grades of exterior architectural woodwork indicated for construction, finishes, installation, and other requirements.
  - 1. Provide WI-certified compliance certificates indicating that woodwork, including installation, complies with requirements of grades specified.
- E. Fire-Test-Response Characteristics: Where fire-retardant materials or products are indicated, provide materials and products with specified fire-test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate markings of applicable testing and inspecting agency in the form of separable paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.

### 1.06 PROJECT CONDITIONS

- A. <u>Weather Limitations</u>: Proceed with installation of exterior woodwork only when existing and forecasted weather conditions permit work to be performed and at least one coat of specified finish to be applied without exposure to rain, snow, or dampness.
- B. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
  - 1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed and indicate measurements on Shop Drawings.
  - 2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish

dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

# 1.07 COORDINATION

A. Coordinate sizes and locations of framing, blocking, reinforcements, and other related units of Work specified in other Sections to ensure that exterior architectural woodwork can be supported and installed as indicated.

### PART 2- PRODUCTS

# 2.01 WOODWORK FABRICATORS

- A. <u>Available Fabricators</u>: Subject to compliance with requirements, fabricators offering exterior architectural woodwork that may be incorporated into the Work include, but are not limited to, the following:
- B. <u>Fabricators</u>: Subject to compliance with requirements, provide exterior architectural woodwork by one of the following:

### 2.02 MATERIALS

- A. <u>General</u>: Provide materials that comply with requirements of AWI's and WI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
- B. <u>Certified Wood</u>: Wood products shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- C. Wood Products: Comply with the following:
  - 1. Hardboard: AHA A135.4. Finish color to be selected by Owner during submittal review.
  - 2. Softwood Plywood: DOC PS 1, Exterior. Finish color to be selected by Owner during submittal review.

# 2.03 WOOD-PRESERVATIVE-TREATED MATERIALS

A. <u>Preservative Treatment by Nonpressure Process</u>: Comply with AWPA N1 using the following preservative for woodwork items indicated to receive water-repellent preservative treatment:

- 1. Water-Repellent Preservative: Formulation made specifically for dip treatment of woodwork items and containing 3-iodo-2-propynyl butyl carbamate (IPBC) complying with AWPA P8 as its active ingredient.
- 2. Water-Repellent Preservative/Insecticide: Formulation made specifically for dip treatment of woodwork items and containing 3-iodo-2-propynyl butyl carbamate (IPBC) as its active ingredient, combined with an insecticide containing chlorpyrifos as its active ingredient, both complying with AWPA P8.
- B. Preservative Treatment by Pressure Process: AWPA C2 (lumber) and AWPA C9 (plywood) and the following:
  - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Use chemical formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.
  - 2. Kiln-dry lumber and plywood after treatment to a maximum moisture content, respectively, of 19 and 15 percent. Do not use materials that are warped or do not comply with requirements for untreated materials.
  - 3. Mark each treated item with treatment quality mark of an inspection agency approved by the American Lumber Standards Committee Board of Review.
- C. Extent of Treatment: Treat blocking and nailers by pressure process and treat other exterior architectural woodwork either by pressure or nonpressure process.
  - 1. Items fabricated from the following wood species need not be treated:
    - a. Western red cedar.
    - b. Teak.
    - c. African mahogany.

### 2.04 FIRE-RETARDANT-TREATED MATERIALS

- A. <u>General</u>: Where fire-retardant-treated materials are indicated, provide materials that comply with performance requirements of AWPA C20 (lumber) and AWPA C27 (plywood), exterior type.
  - 1. Fire-Retardant Chemicals: Use chemical formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to

- distinguish treated materials from untreated materials.
- 2. Mill lumber before treatment and implement special procedures during treatment and drying processes that prevent lumber from warping and developing discolorations from drying sticks or other causes, marring, and other defects affecting appearance of treated woodwork.
- 3. Kiln-dry materials before and after treatment to levels required for untreated materials.
- 4. Do not use treated materials that do not comply with requirements of referenced woodworking standard or that are warped, discolored, or otherwise defective.
- 5. Identify fire-retardant-treated materials with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.

### 2.05 INSTALLATION MATERIALS

- A. <u>Blocking</u>, <u>Shims</u>, <u>and Nailers</u>: Softwood or hardwood lumber, pressure-preservative treated and fire-retardant treated, kiln dried to less than 15 percent moisture content.
- B. Nails: Hot-dip galvanized.
- C. Screws: Hot-dip galvanized or stainless steel.
  - 1. Provide self-drilling screws for metal framing supports, as recommended by metal-framing manufacturer.
- D. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts, unless otherwise indicated. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

### 2.06 FABRICATION, GENERAL

- A. Wood Moisture Content: 9 to 15 percent.
- B. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
  - 1. Edges of Solid-Wood (Lumber) Members 3/4 Inch Thick or Less: 1/16 inch.

- 2. Edges of Rails and Similar Members More Than 3/4 Inch Thick: 1/8 inch.
- C. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
- D. Shop cut openings, to maximum extent possible, to receive hardware, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Smooth edges of cutouts and seal with a water-resistant coating suitable for exterior applications.

# 2.07 EXTERIOR STANDING AND RUNNING TRIM FOR TRANSPARENT FINISH

- A. Grade: Premium.
- B. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
- C. Assemble casings in plant except where shipping limitations require field assembly.
- D. Wood Species: Eastern white pine.
  - 1. Do not use plain-sawn lumber with exposed, flat surfaces more than 3 inches wide.
- E. Finish color to be selected by Owner during submittal review.

# 2.08 EXTERIOR STANDING AND RUNNING TRIM FOR OPAQUE FINISH

- A. Grade: Premium.
- B. Backout or groove backs of flat trim members, and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
- C. Assemble casings in plant except where shipping limitations require field assembly.
- D. <u>Wood Species</u>: Eastern white pine, sugar pine, or western white pine.

- 1. Do not use plain-sawn lumber with exposed, flat surfaces more than 3 inches wide.
- E. Finish color to be selected by Owner during submittal review.

# 2.09 EXTERIOR FRAMES AND JAMBS FOR TRANSPARENT FINISH

- A. Grade: Premium.
- B. Wood Species: White oak.
  - 1. Do not use plain-sawn lumber with exposed, flat surfaces more than 3 inches wide.
- C. All window frames shall be aluminum. Finish color to be black.

# 2.10 SHOP PRIMING

- A. <u>Woodwork for Opaque Finish</u>: Shop prime woodwork for paint finish with one coat of wood primer specified in Division 09 painting Sections.
- B. Woodwork for Transparent Finish: Shop seal woodwork for transparent finish with stain (if required), other required pretreatments, and first coat of finish as specified in Division 09 painting Sections:
- C. <u>Preparations for Finishing</u>: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural woodwork, as applicable to each unit of work.
  - 1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. [ Apply two coats to surfaces installed in contact with concrete or masonry and to end-grain surfaces.]

# 2.11 SHOP FINISHING

- A. <u>Grade</u>: Provide finishes of same grades as items to be finished.
- B. Grade: Premium.
- C. <u>General</u>: Entire finish of exterior architectural woodwork is specified in this Section. To greatest extent possible, finish architectural woodwork at

fabrication shop. Defer only final touchup and cleaning until after installation.

- D. <u>Preparations for Finishing</u>: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural woodwork, as applicable to each unit of work.
  - 1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to surfaces installed in contact with concrete or masonry and to end-grain surfaces.

# E. Opaque Finish:

- 1. AWI Finish System: Conversion varnish.
- 2. AWI Finish System: Catalyzed polyurethane.
- 3. WI Finish System 4: Conversion varnish.
- 4. WI Finish System 5: Catalyzed polyurethane.
- 5. WI Finish System 7a: Synthetic enamel.
- 6. Color: As selected by Owner from manufacturer's full range.
- 7. Sheen: Gloss 61-100 gloss units measured on 60-degree gloss meter per ASTM D 523.
- F. Owner to select color for shop finishes.

# 2.12 ROOF CAST IRON CRESTING

A. Existing cast iron roof cresting shall be reused if salvageable and/or replaced with an alternative material approved by Owner. The price for the work shall be incidental to the line item price for Item #1, Remove and Replace Existing Shingled Roofing Material on 1891 City Hall.

# PART 3- EXECUTION

### 3.01 PREPARATION

- A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.
- B. Deliver concrete inserts and similar anchoring devices to be built into substrates well in advance of time substrates are to be built.
- C. Before installing architectural woodwork, examine shopfabricated work for completion and complete work as required, including removal of packing and backpriming.

# 3.02 INSTALLATION

- A. <u>Quality Standard</u>: Install woodwork to comply with same grade specified in Part 2 for type of woodwork involved.
- B. Install woodwork true and straight with no distortions. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches.
- C. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.
- D. <u>Fire-Retardant-Treated Wood</u>: Handle, store, and install fire-retardant-treated wood to comply with chemical treatment manufacturer's written instructions, including those for adhesives used to install woodwork.
- E. <u>Preservative-Treated Wood</u>: Where cut or drilled in field, treat cut ends and drilled holes according to AWPA M4.
- F. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk concealed fasteners and blind nailing. Use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork.
- G. Standing and Running Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Do not use pieces less than 36 inches long, except where shorter single-length pieces are necessary. Scarf running joints and stagger in adjacent and related members.
  - 1. Install standing and running trim with no more variation from a straight line than 1/8 inch in 96 inches.
- H. Complete finishing work specified in this Section to extent not completed at shop or before installation of woodwork. Fill nail and screw holes with matching filler where exposed.
- I. Refer to Division 09 Sections for final finishing of installed architectural woodwork.

# 3.03 ADJUSTING AND CLEANING

- A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; replace woodwork where not possible to repair. Adjust joinery for uniform appearance.
- B. Clean woodwork on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

### RIGID BOARD INSULATION

### **SECTION 07 21 00**

### PART 1- GENERAL

### 1.01 REFERENCES

- A. ASTM C578-05a: Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- B. ASTM C208-95 (2001): Standard Specification for Cellulosic Fiber Insulating Board.

### 1.02 DELIVERY, STORAGE AND HANDLING

- A. Handle products carefully, ensuring board corners are not broken and boards are not damaged.
- B. Do not store product exposed to direct sunlight. If stored outdoors, cover product with light-colored opaque tarpaulins to protect from solar radiation.

# PART 2- PRODUCTS

# 2.01 MATERIALS

- A. Roof Board Insulation: Poly Isocyanurate board to ASTM C578, Type X, rigid, closed cell type, with integral high density skin.
  - 1. Thermal Resistance (ASTM C518): Two staggered layers of R-15 per 2.6 inch of thickness for a total minimum R-value of 30.
  - 2. Board Size: 4 x 8 feet, 2.6 inches thick (as indicated on Drawings).
  - 3. Water Vapor Permeance (ASTM E96): <1.5 perms.
  - 4. Flame Spread/Smoke Developed Values (ASTM E84):

### 5/165.

- 5. Manufacturer: Johns Manville.
- B. Roof Deck Plywood (if required): 1/2" inch thick marine grade plywood in 4' x 8' sheets, square edges.

Note: Additional information and a more detailed description for INSTA STIK $^{\text{TM}}$  Quik Set Commercial Roofing Adhesive can be found by referring to the Dow Guide Specification - Adhesives for Thermal Protection.

C. Adhesive: Oly Bond 500 2 Part Chemical Adhesive.

### RIGID BOARD INSULATION

# PART 3- EXECUTION

# 3.01 EXAMINATION

- A. Verify that the insulation boards and adjacent materials are compatible.
- B. Ensure vapor retardant membrane is clean and dry.
- C. Verify that substrate is flat, sound, clean and free of oil, grease, objectionable air surface voids, fins, irregularities, materials or substances that may impede adhesive bond.

### 3.01 INSTALLATION - INSULATION

- A. Apply full bed of adhesive to insulation at a rate as recommended by the manufacturer. Spread only enough adhesive to install four (4) boards at a time. Press boards in place to ensure complete bond with substrate. Apply adhesive fully around protrusions.
- B. Apply insulation boards parallel to roof perimeter edges.
- C. Lay second layer of insulation with joints staggered from first layer.
- D. Lay insulation boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetration through roof.
- E. Cut boards to slope for a distance of 24 inches (600 mm) back from roof drains for positive drainage.
- F. Apply no more insulation than can be sealed with membrane in same day.
- G. Keep insulation minimum 3 inches (75 mm) from heat emitting devices, and minimum 2 inches (50 mm) from sidewalls of Type A chimneys and Type B and L vents.
- H. Install dual layer of overlay board, with joints staggered over insulation joints.