March 22, 2022
Douglas R. Wilson
Town Engineer
Town of East Hartford
740 Main Street
East Hartford, CT
RE: Reconstruction of Brewer Street East Hartford, Connecticut Bid No. 22-07 Project No. 42-318/Federal Aid ID: 1042(130) Project No. L042-0001 WSP's Bid Analysis - Executive Summary

Dear Mr. Wilson:

WSP has completed a review of bids opened on March 16, 2022 at the Town of East Hartford for the Reconstruction of Brewer Street Project. Enclosed are pertinent Bid Analysis \& Summary of Findings documents for your records.

There were four (4) responsive bidders. The apparent low bid submitted by Empire Paving, Inc., is $\$ 7,735,889.65$, approximately $13.6 \%$ above engineer's estimate.

The second bid, submitted by C.J. Fucci Inc., was $\$ 7,944,980.53$ and is $102.70 \%$ of low bid. During analysis of Fucci's bid, it was found that the incorrect extended amount was entered for "Item \#0950019A - Turf Establishment - Lawn", "Item \#1209114 - Hot-Applied Painted Pavement Markings 4" Yellow", "Item \#1209124 - Hot-Applied Painted Pavement Markings 4" White", "Item \#1210101 - 4" White Epoxy Resin Pavement Markings", "Item \#1210102-4" Yellow Epoxy Resin Pavement Markings", "Item \#1210105 Epoxy Resin Pavement Markings, Symbols and Legends", "Item \#1211001 - Removal of Pavement Markings", "Item \#1212001 - Temporary Plastic Pavement Marking Tape - 4" Yellow", and "Item \#1212002-Temporary Plastic Pavement Marking Tape - 4" White". Based on the updated extended amount, C.J. Fucci's bid would be increased by $\$ 833.47$ resulting in a total bid price of $\$ 7,945,814.00$. Even with this correction, Empire Paving, Inc. remains the low bidder for the project.

The third bid, submitted by Coastline Construction Corporation, is $\$ 8,127,000.00$ and is $105.06 \%$ of low bid. The fourth bid, submitted by Tilcon CT, Inc., is $\$ 9,257,157.55$ and is $119.67 \%$ of low bid.

Based on our review of the bid and Pre-Award documents as submitted by Empire Paving, Inc. we offer the following:

- Empire Paving, Inc. has met all of the requirements of the bid.
- Background information submitted indicates Empire Paving, Inc. has been in business for 52 years in the industry and has completed several projects within the last five (5) years. Empire Paving, Inc. currently has seven (7) projects in progress approximately $35 \%$ complete in terms of combined Contract Value.
－Empire Paving，Inc．is a prequalified Contractor with the Connecticut Department of Transportation for the work to be performed（ie．Group No． 8 Minor Bridges）．
－Empire Paving，Inc．retains sufficient equipment capacity and has a readily available labor force to perform the above referenced project as prescribed in the solicitation．
－Empire Paving，Inc．has performed work of similar nature and size in the past for various governmental agencies．
－Information submitted indicates that Empire Paving，Inc．has never defaulted on a Contract or failed to complete any work awarded to it．

Please see attached Bid Analysis Report for more detailed information．In summary，the Bids were checked for accuracy and were reviewed for the following：
a）Items were broken down into two categories：Major and Minor Items．Major Items are defined as the minimum number of items totaling $60 \%$ of the contract value not including Estimated Cost Items．Minor Items are the remaining items that make up the remainder of the contract value．
b）The low bidder＇s schedule of values was compared to the values in the Engineer＇s Estimate to determine variance from the Engineer＇s Estimate．Any items that varied significantly from the Engineer＇s Estimate as well as the $2^{\text {nd }}, 3^{\text {rd }}$ ，and $4^{\text {th }}$ low bids were identified．No errors in the estimated quantities were identified that would underestimate the work required and achieve an artificially low bid in evaluation but ultimately higher price during performance．
c）The apparent low bid was analyzed for＂front loading＂which could be considered unbalancing a bid．In a ＂front load＂bid，the Contractor would，in effect，receive advance payment for later contract work．No evidence of front loading was apparent for the low bid．

In conclusion，based upon the review of information provided，WSP recommends that the Town of East Hartford award Empire Paving，Inc．the construction work for the Reconstruction of Brewer Street．If you should have any questions or require additional information，please do not hesitate to call．

Very truly yours，


Steven D．George，P．E．
Project Manager

Reconstruction of Brewer Street<br>East Hartford, Connecticut<br>Bid No. 22-07<br>Project No. 42-318/Federal Aid ID: 1042(130)<br>Project No. L042-0001<br>Bidding Phase Services - Statement of Correctness

The following is the list of bidders including bid amounts for the Brewer Street Reconstruction Project. The bid amounts have been checked for accuracy and are as written on the bottom of the Bid Forms* and as read aloud at the bid opening on March 16, 2022.

## BIDDER

Empire Paving, Inc.
C.J. Fucci, Inc.

Coastline Construction Corporation
Tilcon CT, Inc.

BID AMOUNT
\$7,735,889.65
\$7,944,980.53*
\$8,127,000.00
\$9,257,157.55
*Note: On the bid sheet for C.J. Fucci, Inc., it was found that the incorrect extended amount was entered for "Item \#0950019A - Turf Establishment - Lawn", "Item \#1209114 - Hot-Applied Painted Pavement Markings 4" Yellow", "Item \#1209124 - Hot-Applied Painted Pavement Markings 4" White" , "Item \#1210101-4" White Epoxy Resin Pavement Markings", "Item \#1210102-4" Yellow Epoxy Resin Pavement Markings", "Item \#1210105 - Epoxy Resin Pavement Markings, Symbols and Legends", "Item \#1211001 - Removal of Pavement Markings", "Item \#1212001 Temporary Plastic Pavement Marking Tape - 4" Yellow", and "Item \#1212002 - Temporary Plastic Pavement Marking Tape - 4" White". Based on the updated extended amount, C.J. Fucci's bid would be increased by $\$ 833.47$ resulting in a total bid price of $\$ 7,945, \mathbf{8 1 4 . 0 0}$. This correction will not change the apparent low bidder.

All other individual bid item amounts as shown on the Bid Form are correct. The final Bid Amount is as shown above.


Steven D. George, P.E.

Date: $\qquad$ $3 / 22 / 22$

## Introduction

Bids for the Reconstruction of Brewer Street Project were opened March 16, 2022, with there being four bidders. The apparent low bid, submitted by Empire Paving, Inc., is $\$ 7,735,889.65$. This is $13.58 \%$ above the Engineer's Estimate of approximately $\$ 6,811,213.83$. The second bid, submitted by C. J. Fucci, Inc., is $\$ 7,945,814.00$. This is $16.66 \%$ above the Engineer's Estimate. The third bid, submitted by Coastline Construction Corporation, is $\$ 8,127,000.00$. This is $19.32 \%$ above the Engineer's Estimate. The fourth bid, submitted by Tilcon CT, Inc., is $\$ 9,257,157.55$. This is $35.91 \%$ above the Engineer's Estimate.

The following issues/items are presented for the Town of East Hartford's consideration:

- In general, the unit prices appear reasonable; however, noted variances between the bid and the Engineer's Estimate have been identified for further evaluation.
- There are a few items of concern where the low bidder may be asked to explain their bid price.
- The current economic climate has reasonable impact on the item prices due to the COVID-19 Pandemic impacts on material supply chains, as well as current inflation and fuel prices


## Bid Analysis

The methodology utilized in the Bid Analysis is as follows:

1. The low bidder's schedule of values was compared to the values in the Engineer's Estimate to determine variance from the Engineer's Estimate. Dollar or penny bid items were identified along with any items that varied significantly from the Engineer's Estimate as well as the $2^{\text {nd }}, 3^{\text {rd }}$ and $4^{\text {th }}$ low bids.

The following items of concern were identified:

|  |  |  | Engineer's <br> Item No. | Bid <br> Unit Price | $\%$ <br> Unit Price |
| :--- | :--- | :--- | :--- | :--- | ---: |
| Difference |  |  |  |  |  |


| 0943001 | Water for Dust Control | M GAL | $\$ 2$ | $\$ 0.01$ | $-99.50 \%$ |
| :--- | :--- | :--- | :--- | :--- | ---: |
| 0950036 | Erosion Control Matting Type E | SY | $\$ 5$ | $\$ 15$ | $200.00 \%$ |
| 0980020 | Construction Surveying | LS | $\$ 102,114.04$ | $\$ 200,000$ | $95.86 \%$ |
| 0981101 A | Opposing Traffic Lane Divider | EA | $\$ 100$ | $\$ 200$ | $100 \%$ |
| 1008015 | 2" Rigid Metal Conduit - Surface | LF | $\$ 24$ | $\$ 51$ | $112.50 \%$ |
| 1008115 | 2" Rigid Metal Conduit in Trench | LF | $\$ 12.40$ | $\$ 34.10$ | $175 \%$ |
| 1008215 | 2" Rigid Metal Conduit Under Roadway | LF | $\$ 16$ | $\$ 37.10$ | $131.88 \%$ |
| 1008217 | 3" Rigid Metal Conduit Under Roadway | LF | $\$ 36.20$ | $\$ 77.25$ | $113.40 \%$ |
| 1008907 A | Clean Existing Conduit | HR | $\$ 128$ | $\$ 325$ | $153.91 \%$ |
| 1015034 A | Grounding and Bonding | LS | $\$ 500$ | $\$ 2,550$ | $410 \%$ |
| 1111201 A | Temporary Detection (Site No. 1) | LS | $\$ 5,000$ | $\$ 12,300$ | $146 \%$ |
| $1208931 A$ | Sign Face-Sheet Aluminum (Type |  |  |  |  |
|  | IX Retroreflective Sheeting) | SF | $\$ 40$ | $\$ 78$ | $95 \%$ |
| 1220027 | Construction Signs | SF | $\$ 21$ | $\$ 2$ | $-90.48 \%$ |
| $1301082 A$ | 8" Ductile Iron Pipe (Water Main) | LF | $\$ 130$ | $\$ 292$ | $124.62 \%$ |

As shown above, thirty-seven items of concern were identified. The combined low bid value of these items is $\$ 1,330,488.40$. This is 135.42 percent more than the value of this work in the Engineer's Estimate ( $\$ 565,148.94$ ). This work is valued at $\$ 1,050,980$ in the $2^{\text {nd }}$ low bid, $\$ 1,183,948.20$ in the $3^{\text {rd }}$ low bid and $\$ 1,181,013.25$ in the $4^{\text {th }}$ low bid.
The list above was reviewed and determined reasonable considering the following:

- Bid pricing for many items tends to vary significantly from project to project and bidder to bidder and is closely tied to the Contractor's assumed 'Means and Methods'.
- There are multiple lump sum items which are of less concern since the cost will only incur once.
- Cofferdam and Dewatering was significantly higher than the Engineer's Estimate, however, the unit price for this item was still much less than the $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders.
- The bid prices for Water for Dust Control were $\$ 0.01 /$ MGAL and $\$ 2 /$ SF, respectively. The contractor may be asked to explain their bid price for these items.
- Multiple items above have very low quantities (i.e., Environmental Work - Solidification, Rock Excavation, Controlled Low Strength Material, 1 ½" Polyvinyl Chloride Plastic Pipe (Bridge), 1/2" Preformed Expansion Joint Filler for Bridges, Thrie Beam Bridge Attachment - (Painted Black), R-B End Anchorage - Type I - (Painted Black), R-B End Anchorage - Type II - (Painted Black), 3' Chain Link Gate 7’ High, 3' Chain Link Gate 3' High, Clean Existing Conduit, etc.).

2. Items were broken down into two categories: Major and Minor Items. Major Items are defined as the minimum number of items totaling $60 \%$ of the contract value not including Estimated Cost Items. Minor Items are the remaining items that make up the remainder of the contract value.

The analysis (see the attached spreadsheet) identified the Major Items as follows:
$\left.\begin{array}{lllllr} & & & \begin{array}{l}\text { Engineer's } \\ \text { Item No. }\end{array} & \begin{array}{l}\text { Did } \\ \text { Description }\end{array} & \text { Unit } \\ \text { Unit Price }\end{array}\right)$

| 0601064 | Abutment and Wall Concrete | C.Y. | $\$ 1,056$ | $\$ 680$ | $-35.61 \%$ |
| :--- | :--- | :--- | :--- | :--- | ---: |
| 0202000 | Earth Excavation | C.Y. | $\$ 20$ | $\$ 24.50$ | $22.50 \%$ |
| 0921001 A | Concrete Sidewalk | S.F. | $\$ 12$ | $\$ 14.25$ | $18.75 \%$ |
| 0980020 | Construction Surveying | L.S. | $\$ 102,114.04$ | $\$ 200,000$ | $95.86 \%$ |
| 0971001 A | Maintenance and Protection of Traffic | L.S. | $\$ 272,304.10$ | $\$ 160,000$ | $-41.24 \%$ |
| 0602030 | Deformed Steel Bars - Galvanized | LB. | $\$ 2.95$ | $\$ 2.90$ | $-1.69 \%$ |
| 0970007 | Trafficperson (Uniformed Flagger) | HR. | $\$ 55$ | $\$ 59$ | $7.27 \%$ |
| 0601062 | Footing Concrete | C.Y. | $\$ 625.17$ | $\$ 500$ | $-20.02 \%$ |
| 0586002.1 | Type "C" Catch Basin (4' Sump) - 0' - 10' Deep | EA. | $\$ 3,700$ | $\$ 4,950$ | $33.78 \%$ |
| $0969062 A$ | Construction Field Office, Medium | MO. | $\$ 3,100$ | $\$ 4,500$ | $45.16 \%$ |

As shown above highlighted in yellow, twelve Major Items deviated from the Engineer's Estimate by 20\% or more.

- Mobilization and Project Closeout: At $\$ 750,000$ ( $\$ 750,000 / \mathrm{LS}$ ), the amount bid for this item is 46.89 percent higher than the Engineer's Estimate ( $\$ 510,570.19$ ). The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 600,000$, $\$ 300,000$, and $\$ 935,250$, respectively for this item.

Although the bid price for this item is higher than the Engineer's Estimate and the $2^{\text {nd }}$ and $3^{\text {rd }}$ bidders, it is less than the price for this item submitted by the $4^{\text {th }}$ bidder. The cost for this item can vary based on the contractor's approach to mobilizing. Therefore, the price provided is reasonable.

- Cofferdam and Dewatering: At $\$ 395,250$ ( $\$ 850 / \mathrm{LF}$ ), the amount bid for this item is 162.65 percent higher than the Engineer's Estimate ( $\$ 150,487.95$ ). The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 558,000, \$ 674,250$, and $\$ 627,750$, respectively for this item.

Although the bid price for this item is higher than the Engineer's Estimate, it is much less than the price for this item submitted by the other three bidders. This price may be dependent on supply chains which likely have been impacted by the COVID 19 impacts on the economy. Therefore, the price provided is reasonable.

- Clearing and Grubbing: At $\$ 290,000$ ( $\$ 290,000 / L S$ ), the amount bid for this item is 113.00 percent higher than the Engineer's Estimate ( $\$ 136,152.05$ ). In comparison, the $2^{\text {nd }}, 3{ }^{\text {rd }}$, and $4^{\text {th }}$ bidder included $\$ 80,000$, $\$ 99,340.20$, and $\$ 35,650$, respectively for this item.
The bid price for this item is higher than the Engineer's Estimate and the other three bidders. The $2^{\text {nd }}$ and $3^{r d}$ bidders lump sum price is more in line with the Engineer's Estimate. However, the Contractor's assumed 'Means and Methods' may relate to the higher lump sum price.
- 5 " X 18" Granite Stone Curbing: At $\$ 286,200$ ( $\$ 53 / L F$ ), the amount bid for this item is 51.43 percent higher than the Engineer's Estimate ( $\$ 189,000$ ). In comparison, the $2^{\text {nd }}, 3{ }^{\text {rd }}$, and $4^{\text {th }}$ bidder included $\$ 280,800$, $\$ 253,800$, and $\$ 232,200$, respectively for this item.

Although the bid price for this item is higher than the Engineer's Estimate, it is in line with the price submitted by the $2^{\text {nd }}$ bidder and close with the $3^{\text {rd }}$ bidder. Therefore, the price provided is reasonable.

- Subbase: At $\$ 274,450$ ( $\$ 55 / \mathrm{CY}$ ), the amount bid for this item is 34.15 percent higher than the Engineer's Estimate $(\$ 204,590)$. The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 209,580, \$ 249,500$, and $\$ 341,815$, respectively for this item.

Although the bid price for this item is higher than the Engineer's Estimate, it falls within the prices submitted by the $3^{\text {rd }}$ and $4^{\text {th }}$ bidders. Therefore, the price provided is reasonable.

- Abutment and Wall Concrete: At $\$ 246,160(\$ 680 / C Y)$, the amount bid for this item is 35.61 percent lower than the Engineer's Estimate $(\$ 382,272)$. The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 253,400, \$ 276,930$, and $\$ 262,812$, respectively for this item.
The bid price for this item is lower than the Engineer's Estimate, however, the price is in line with the prices of the other three bidders. Therefore, the price provided is reasonable.
- Earth Excavation: At $\$ 231,035$ ( $\$ 24.50 / \mathrm{CY}$ ), the amount bid for this item is 22.50 percent higher than the Engineer's Estimate ( $\$ 188,600$ ). The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 264,040, \$ 424,350$, and $\$ 240,465$, respectively for this item.

Although the bid price for this item is higher than the Engineer's Estimate, it is in line with the $2^{\text {nd }}$ and $4^{\text {th }}$ bidders and lower than the $3^{\text {rd }}$ bidder. Therefore, the price provided is reasonable.

- Construction Surveying: At $\$ 200,000$ ( $\$ 200,000 / L S$ ), the amount bid for this item is 95.86 percent higher than the Engineer's Estimate ( $\$ 102,114.04$ ). The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 120,000, \$ 92,000$, and $\$ 227,450$, respectively for this item.

Although the bid price for this item is higher than the Engineer's Estimate and the $2^{\text {nd }}$ and $3^{\text {rd }}$ bidders, it is less than the price for this item submitted by the $4^{\text {th }}$ bidder. The cost for this item can vary based on the contractor's approach to construction surveying. Therefore, the price provided is reasonable.

- Maintenance and Protection of Traffic: At $\$ 160,000$ ( $\$ 160,000 / \mathrm{LS}$ ), the amount bid for this item is 41.24 percent lower than the Engineer's Estimate ( $\$ 272,304.10$ ). The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 400,000$, $\$ 72,000$, and $\$ 710,350$, respectively for this item.

Although the bid price for this item is lower than the Engineer's Estimate and the $2^{\text {nd }}$ and $4^{\text {th }}$ bidders, it is higher than the price for this item submitted by the $3^{\text {rd }}$ bidder. The cost for this item can vary based on the contractor's approach to maintenance and protection of traffic. Therefore, the price provided is reasonable.

- Footing Concrete: At $\$ 127,500(\$ 500 / C Y)$, the amount bid for this item is 20.02 percent lower than the Engineer's Estimate ( $\$ 159,418.35$ ). The $2^{\text {nd }}, 3{ }^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 146,625, \$ 87,975$, and $\$ 83,640$, respectively for this item.

The bid price for this item is lower than the Engineer's Estimate, however, the price is in line with the price of the 2nd bidder. Therefore, the price provided is reasonable.

- Type "C" Catch Basin (4' Sump) - 0' - 10' Deep: At $\$ 108,900$ ( $\$ 4,950 / E A$ ), the amount bid for this item is 33.78 percent higher than the Engineer's Estimate ( $\$ 81,400$ ). The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 96,800$, $\$ 143,000$, and $\$ 130,900$, respectively for this item.

Although the bid price for this item is higher than the Engineer's Estimate, it is in line with the price submitted by the $2^{\text {nd }}$ bidder, but lower than the price of the $3^{\text {rd }}$ and $4^{\text {th }}$ bidders. Therefore, the price provided is reasonable.

- Construction Field Office, Medium: At $\$ 108,000$ ( $\$ 4,500 / \mathrm{MO}$ ), the amount bid for this item is 45.16 percent higher than the Engineer's Estimate ( $\$ 74,400$ ). The $2^{\text {nd }}, 3^{\text {rd }}$, and $4^{\text {th }}$ bidders included $\$ 120,000, \$ 72,000$, and $\$ 147,600$, respectively for this item.

Although the bid price for this item is higher than the Engineer's Estimate and the $3^{r d}$ bidder, it is in line with the price submitted by the $2^{\text {nd }}$ bidder, but lower than the $4^{\text {th }}$ bidder. Therefore, the price provided is reasonable.


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