DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION
(Justification for FAR subpart 6.3)

A. NATURE/DESCRIPTION OF THE ACTION BEING APPROVED.

1. Name of contracting activity:

U.S. Department of the Treasury
Bureau of Engraving and Printing (BEP)
Office of the Chief Procurement Officer (OCPO)
14th and C Streets, SW
Washington, DC 20228

2. Name of Proposed Source: Papierfabrik Louisenthal GmbH	
3. Requisition No.: N/A for Base IDV (will apply for individual Task Orders)	4. Cost Estimate: $47,474,246
5. ☒ New Contract or ☐ Modification	6. Bridge ☐ Yes ☒ No
7. Brand Name Yes ☐ ☒ No	8. Individual ☒ or Class ☐ Justification
9. Contract Type: Firm Fixed Price IDIQ	10. Attachments ☐ Yes ☒ No
11. Policy Tracking no. TBD	

12. Additional details:

The BEP, Office of Technology Development (OTD) has a requirement for continued research and development (R&D) of an [redacted] security feature; this effort will be referred as [redacted] The scope of the current effort is to further the technology with US exclusive [redacted] effects and unique physical properties suitable to the needs of the BEP and the United States Currency Program (USCP). To date, the current contract performance [redacted] contract 2031ZA20D00011 involves Phase II Feasibility, Phase III Test & Optimization (T&O) and Phase IV Technology Integration (TI) phases of the Technology Development Program (TDP) which also included the development of security features from concepts to a laboratory scale environment at the vendor's facility, Papierfabrik Louisenthal GmbH (Louisenthal), a subsidiary of the Giesecke+Devrient company. Based on significant technical and design progress made from the previous contracts, [redacted] feature has been selected to support [redacted] of future banknotes.

Consequently, BEP/OTD would like to accomplish continuation of Phase III ongoing studies and possible future work in advancing potential features from Phases II and III to subsequent phases of the TDP, such as Phases III & IV, respectively. These incremental phases involve the delivery of services and materials by the vendor to prototype features on roll-to-roll manufacturing, allowing the further potential to integrate the developed features into a relevant US banknote environment which includes providing the developed features and application of the features onto US distinctive paper substrate at a secure BEP facility with work performed by trained BEP personnel.

Therefore, BEP, Office of the Chief Procurement Officer (OCPO), Production Contracting Division, Research & Development Branch proposes to award a sole-source acquisition to Louisenthal for the

continuous development of [redacted] security features. These features will be unique to USCP and will retain the exclusivity rights for the proprietary technologies relating to [redacted] security features with [redacted] effects that is exclusive for the next generation of United States (U.S.) currency. In this instance, the proposed source shall furnish facilities, labor and materials to produce an [redacted] counterfeit deterrent feature in accordance with the Statement of Objectives at the task order level. The BEP anticipates a sole-source Firm-Fixed Price (FFP) Indefinite Delivery Indefinite Quantity (IDIQ) contract with a five (5) year ordering period to Louisenthal. The Government will provide a firm fixed price not to exceed amount for travel and consumables and will only pay for actual costs incurred for travel and consumable items.

Vendor Information:

Papierfabrik Louisenthal GmbH
UEI No. XH6XJLE3BT81
Papierfabrik Louisenthal GmbH
c/o Giesecke & Devrient
Prinzregentenstraße 159, 81677 München
Phone: +49-89-4119-1816
Fax: +49-89-4119-1140
http://www.louisenthal.com

The required technology is proprietary to Papierfabrik Louisenthal GmbH and only available from one responsible source. The BEP anticipates sourcing this requirement from the current development contractor in order to retain the investment in a technology that has been developed exclusively for use by the BEP.

B. DESCRIPTION OF THE SUPPLIES OR SERVICES REQUIRED TO MEET AGENCY NEEDS.

This requirement is for continued development for new overt features suitable for use in protecting the next generation of U.S. currency from counterfeiting threats. The successful development effort will provide the general public with a user-friendly feature with which to quickly and confidently validate banknotes passed in common, everyday transactions. Specifically for this requirement, this work is to continue the technology development effort, initiated in BEP Contract TEPD-15-1781 and continued through [redacted] contract 2031ZA20D00011. The main focus of [redacted] is to further the technology that resulted from the aforementioned works done within Phases II-IV of the BEP's Technology Development Process (TDP) and to continually incorporate new concepts as necessary.

The periodic project goals are for the contractor to present to the BEP and its stakeholders regular progress updates and functioning feature exemplars and to support the integration of the security feature into a functional banknote environment. The ultimate project goal is the technology development of a fully functional [redacted] public feature(s) for which the contractor is able to achieve proof of technology manufacturability on a full industrial scale and for the contractor to support the complete integration of the feature technology into the BEP's final product of a U.S. Federal Reserve Note (FRN).

The independent government cost estimate (IGCE) for the full five-year research and development services effort is $47,474,246. The purpose of this procurement is to determine feasibility of the potential feature(s) through research and development (R&D) efforts, which if proven successful could lead to future supply contracts if the technology is selected for inclusion in United States currency by the Secretary of the Treasury.

C. IDENTIFICATION OF THE STATUTORY AUTHORITY PERMITTING OTHER THAN FULL AND OPEN COMPETITION. (Check only one)

☒	41 U.S.C. 3304(a)(1), FAR 6.302-1 Only one responsible source and no other supplies or services will satisfy agency requirements
☐	41 U.S.C. 3304(a)(2), FAR 6.302-2 Unusual and compelling urgency
☐	41 U.S.C. 3304(a)(3), FAR 6.302-3 Industrial mobilization; engineering, developmental, or research capability; or expert services
☐	41 U.S.C. 3304(a)(4), FAR 6.302-4 International agreement
☐	41 U.S.C. 3304(a)(5), FAR 6.302-5 Authorized or required by statute
☐	41 U.S.C. 3304(a)(6), FAR 6.302-6 National security
☐	41 U.S.C. 3304(a)(7), FAR 6.302-7 Public interest

D. DEMONSTRATION THAT THE PROPOSED CONTRACTOR'S UNIQUE QUALIFICATIONS OR THE NATURE OF THE ACQUISITION REQUIRES USE OF THE AUTHORITY CITED.

As provided by 41 U.S.C. 3304 (a)(1), and as implemented by FAR 6.302-1(a)(2), the proposed Contractor is the "Only one responsible source and no other supplies or services will satisfy the agency requirements." This requirement is deemed to be available only from the original intellectual property owner of the [redacted] security features, Louisenthal. This is a follow-on for the continued development of a highly specialized service. Only the proposed source was identified to produce a [redacted] security feature that fulfills the BEP requirements for ease of interpretation due to strong and reliable visual effect, difficulty of simulation, and high barrier to reverse-engineering due to Louisenthal's proprietary precise manufacturing technique. In accordance with FAR subpart 6.302-1, this justification for other than full and open competition (JOFOC) is issued under the authority of 41 U.S.C. § 3304(a)(1), only one responsible source and no other supplies or services will satisfy agency requirements. The nature of the acquisition and the proposed source's unique qualifications require the use of the authority cited. The following supports the reason for use of this authority.

BEP completed an evaluation of the proposed source's unique and innovative technologies and has determined, based on the completion of this evaluation, that there are sufficient demonstrations of the unique technology's potential that it would be most advantageous and beneficial for the Government to continue the R&D process for the technologies developed under the [redacted] projects. As a result, a follow-on contract should be established with Louisenthal to advance the R&D process regarding the Louisenthal unique technology. The R&D efforts for this requirement are anticipated to result in achieving security feature exemplar advancement within the scope of the following phases of the approved Technology Development Process (TDP): Concept (Phase1), Feasibility (Phase 2), Test and Optimize (Phase 3), and Technology Integration (Phase 4) for one or more overt counterfeit deterrent security features for potential application in U.S. currency (see the Statement of Objectives for specific details).

The USCP has identified the technology as [redacted] and has a desire to give it further consideration as a potential overt security feature for future generations of U.S. Federal Reserve notes, in addition to the [redacted] Banknote, which [redacted] was selected to support [redacted] The basis of BEP pursuing this proprietary technology as principally a follow-on contract to the initial contract is the technical merit that has been demonstrated to-date and the importance of the BEP's counterfeit deterrence strategic goals to continually develop and implement new security features for U.S. currency. The following table identifies the previous contracts of which the COR is presently aware under which this technology has been developed to this point.

Contract #	Project(s)	Contractor	Awarded	Contract Price
TEPD-15-1781	[redacted]	LOUISENTHAL	9/30/2015	$20,000,000
2031ZA20D00011	[redacted]	LOUISENTHAL	9/29/2020	$42,000,000

This procurement is for R&D services for the continued development of new technology. The resultant outcome carries an inherent risk of uncertainty. As a result, the outcome of this procurement will determine whether or not the proposed innovative technology will be incorporated into the U.S. currency.

Proposed Source's unique qualifications:

The proposed source has been determined to be the only source, current or potential, of the [redacted] technology with added feature effects [redacted] unique visual appearance of effects such as [redacted], including the feature application media, process, and materials necessary to develop a [redacted] security feature suitable to the needs of the BEP and the USCP.

The proposed source is capable of providing the required R&D services including the supply of physical exemplars of new features and has the manufacturing capacity and/or potential manufacturing capacity, know-how including trained personnel, and experience with developing security features for banknotes. There are no other known sources that have the capability to produce a feature that meets the required physical characteristics and functionality which the proposed source has demonstrated. The proposed source has the rights to all intellectual property associated with the [redacted] projects. No other source has this intellectual property.

The use of an alternate vendor to further develop the proposed source's unique technology is not a viable option. The BEP cannot pursue the development of this unique technology that has been initially developed by the proposed source under the above-mentioned contract(s) with another vendor due to the existing proprietary information and unique technology developed by the proposed source without directly infringing upon the Intellectual Property and Non-Disclosure Agreement (NDA) signed by both parties. As a result, the use of any alternate vendor's unique technology inhibits the BEP's ability to advance the current progress of development activity within the existing project. In order to

maintain the current security feature development, the proposed source is the only responsible source.

Overall, the nature of this acquisition demonstrates that the proposed source is the only responsible and qualified source that has access to the Intellectual Property of the materials as well as the specialized technical expertise, knowledge and capability to develop, design, manufacture, supply, deliver and thereby perform the required R&D effort to further develop the overt characteristics of these unique technologies as a potential security feature for incorporation into U.S. currency. As a result, the USCP is interested in the further investigation of the [redacted] security feature and the proposed source has agreed to temporarily reserve the specific feature effects exclusively for the USCP.

E. DESCRIPTION OF EFFORTS MADE TO ENSURE THAT OFFERS ARE SOLICITED FROM AS MANY POTENTIAL SOURCES AS IS PRACTICABLE, INCLUDING WHETHER A NOTICE WAS OR WILL BE PUBLICIZED AS REQUIRED BY FAR SUBPART 5.2 AND, IF NOT, WHICH EXCEPTION UNDER FAR 5.202 APPLIES.

The BEP maintains continuous sources sought announcements on the GPE (Government Point of Entry) for Federal Government procurement on the SAM.gov website. These announcements are revisited annually and specifically request industry to submit their unique technologies for consideration as a potential US currency security feature. These RFIs specifically seek to identify information and sources for technologies and/or materials with potential application as an overt feature on future generations of U.S. currency. Interested parties are encouraged to respond to these notices with information for technologies which provide effective counterfeit deterrence against all types of threats including traditional printing as well as digital reproduction. BEP continues to receive responses via various RFIs, Request for Proposals (RFPs), and Broad Agency Announcement (BAA) notices associated with the BEP security features development program, as well as to identify other potential sources via other market research avenues, as mentioned above. The BEP will continue to review and evaluate responses received from the RFI to determine as warranted the possibility of establishing a competitive R&D procurement with the intent to evaluate security features in U.S. currency.

There are some general industry standards to which to compare the activity of the types of effect that were developed under the prior contracts. The most relevant information would be related to [redacted] As expected, no known feature exists in either of these categories that display the level of technical complexity or perceived effect uniqueness that would make for a sufficient competition to the current effort. The technologies would therefore be judged by the BEP Project team's subject matter experts on activity versus a range of [redacted] characteristics.

Listed below are additional details regarding the solicitation.

- Request For Information (RFI) – There is an ongoing RFI posting on SAM.gov for [redacted] security feature technologies, which is an open channel for companies or individuals who are unknown to

the marketplace to submit their [redacted] technologies for consideration. The RFI postings are valid for a total of 12 months and expires November 2025.

- Latest RFIs can be found on SAM.gov:

1. 2031ZA25N00003 - Bureau of Engraving and Printing (BEP) Request for Information (RFI) - R&D Hidden Machine-Readable Security Features
2. 2031ZA25N00004 - Bureau of Engraving and Printing (BEP) Request for Information (RFI) - R&D Overt Security Features
3. 2031ZA25N00005 - Bureau of Engraving and Printing (BEP) Request for Information (RFI) - R&D Device Assisted Security Features

BEP is and will continue to promote competition for the development of unique technologies for the expressed purpose of their use as a security feature on U.S. currency. In this instance, BEP has conducted and is currently conducting multiple standalone R&D efforts regarding various unique and novel technologies for possible use as a security feature on U.S. currency. The actions BEP will continue to take to promote competition and identify such potential sources include but are not limited to: holding vendor conferences, attending conferences and other similar forums regarding emerging trends and leading technologies within and outside of the banknote industry, and posting RFIs and Sources Sought Notices.

Recently completed market research showed new [redacted] technologies aimed at use as [redacted] have appeared since market research in support of the original contract. However, in all cases there was a shortcoming in: the required deployment (for example, on a banknote), and/or [redacted] and/or complexity of effect (and challenge to counterfeiters) as judged by a team of subject matter experts. Thus, the advancement of specific new Louisenthal technologies under BEP contract has increased the differentiation from the market and it would be even more difficult to find another suitable source now, compared to the outset of the [redacted] project.

A Notice of Intent to Award Sole Source will be publicized on SAM.Gov prior to solicitation release.

F. DETERMINATION BY THE CONTRACTING OFFICER THAT THE ANTICIPATED COST TO THE GOVERNMENT WILL BE FAIR AND REASONABLE.

The BEP Contracting Officer will determine the price to be fair and reasonable in accordance with FAR Part 15.404-1, Proposal analysis techniques. Proposed prices will be compared with historical prices paid which were found fair and reasonable on previous purchases for similar requirements. Overall, the Government will use various price analysis techniques and procedures to arrive at a fair and reasonable price determination, including but not limited to comparison of proposed prices to historical prices paid, comparison with competitive published prices, published market prices, similar indexes, Certified Cost or Pricing Data, if applicable, data other than Certified Cost or Pricing Data, and comparison of proposed prices with the IGCE.

G. DESCRIPTION OF THE MARKET RESEARCH CONDUCTED (SEE FAR PART 10) AND THE RESULTS OR A STATEMENT OF THE REASON MARKET RESEARCH WAS NOT CONDUCTED.

The OCPO's Contract Specialist conducted market research of Treasury mandatory sources, AbilityOne, and the Federal Procurement Data System (FPDS-NG). The market research under these websites did not identify sources that are able to meet this requirement. Extensive market research efforts have been on-going for this requirement since 2009 to ensure that no known [redacted] feature effect exists that displays the level of technical complexity or perceived effect uniqueness with a comparable activity that would make for a sufficient competition to the current effort. Please see attached SF 1010, Market Research for full details.

Listed below are additional details regarding the various market research techniques utilized by the OTD and the OCPO:

- Semi-annual and Annual meetings and discussions with the existing [redacted] vendor Papierfabrik Louisenthal were regularly held, last one being in November 2024, as well as monthly telephone meetings and project reports. It includes reports and samples providing physical manifestations of unique [redacted]
- [redacted] as a technology effort linked to the [redacted] as well as [redacted] press that is currently under development for a press acquisition initiated by OPE. [redacted] banknotes.
- Applied personal knowledge/Contacted Knowledgeable Individuals – The PM and direct project team have an extended combined government/industry experience in the area of currency counterfeit deterrent features. As a result of this experience, the project team is confident that the current technology and effect category is novel in the industry.

- Market-specific trade shows were attended by various members of the OTD team to gather information on the state of the technology of [redacted] Examples of recently attended trade shows include the following:
    - Label Expo Americas 2024, Chicago, IL, September 10-12, 2024
- Contractor Site Visit – PMs visited [redacted] site in [redacted] multiple times.

The state of the market was judged against the type of feature that is the desired outcome of the current project. No known [redacted] effect exists that displays the level of technical complexity or perceived effect uniqueness with a comparable activity that would make for a sufficient competition to the current effort. Only Louisenthal was identified that could produce a [redacted] based security feature that fulfills the BEP requirements for ease of interpretation due to strong and reliable visual effect, difficulty of simulation, high barrier to reverse-engineering due to the precision manufacturing technique, and US Currency Program (USCP) exclusive effects.

In conclusion, based on the above analysis, and the follow-on nature of this action, no other vendors were found to be capable of providing a security feature with the unique effect that this feature provides, besides the proposed vendor. The BEP will continue searching for other possible vendors. Based on the results of this market research, the proposed vendor is the only possible vendor with the intellectual property of this unique effect.

H. ANY OTHER FACTS SUPPORTING THE USE OF OTHER THAN FULL AND OPEN COMPETITION.

The BEP and other members of the USCP have a strategic goal of developing security features for future generations of U.S. currency. In order to achieve that goal, BEP must continuously identify, evaluate and source new technologies to stay ahead of counterfeiting and to maintain the trust and confidence that the world has in U.S. currency. In identifying sources, BEP often looks for sources that have technologies that are inherently unique or exclusive so as to maintain a limited distribution to only BEP for use only on U.S. currency.

The objective of the BEP Technology Development Program is to identify, develop, and recommend new and emerging security feature technologies and sources for potential U.S. currency application. As part of the program, the BEP receives and evaluates relevant technologies and sources for potential contracts using various market research techniques. A technical recommendation, combined with BEP management, determines whether to pursue further investigation of the information submitted by the vendor or otherwise obtained by BEP.

Security features fall into three categories depending on the intended usage of the feature. The first major category is that of low level overt, unassisted features that helps the general public authenticate a banknote. A higher level is a device-assisted overt feature that may be used by the general public and especially by the cash-handling community and Banknote Equipment Manufacturers (BEM) who produce, distribute, and maintain equipment that reads banknotes. The high level, high-speed covert features are those used by the central bank only.

Security features must exhibit certain attributes depending on the intended usage of the feature. As a continual effort to find, assess and eventually choose unique and US exclusive security features, BEP enters into contractual arrangements with vendors possessing certain proprietary technologies and unique features in order to fully test, develop and properly implement the features.

I. LISTING OF THE SOURCES, IF ANY, THAT EXPRESSED, IN WRITING, AN INTEREST IN THE ACQUISITION.

Louisenthal is the only known source available and qualified in fulfilling this Government requirement. No other source responded to the latest RFI as described above.

J. STATEMENT OF THE ACTIONS, IF ANY, THE AGENCY MAY TAKE TO REMOVE OR OVERCOME ANY BARRIERS TO COMPETITION BEFORE ANY SUBSEQUENT ACQUISITION FOR THE SUPPLIES OR SERVICES REQUIRED.

The Bureau, in conjunction with the Federal Reserve Board of Governors, continues to focus on identifying new counterfeit deterrents to improve the security of U.S. currency.

To support the BEP mission, the BEP has a continuous effort to seek sources via the BEP Home Page, OCPO, Counterfeit Deterrence, at https://www.bep.gov/currency/currency-redesign. Vendors who believe they have the technologies or materials with potential application as a counterfeit deterrent feature in United States currency are continuously invited to provide their unique capabilities for the Bureau's consideration. Further, the BEP also issues yearly Request for Information (RFI's) on the SAM.gov website to provide vendors in the industry an opportunity to submit capability statements or sample technologies.

K. JUSTIFICATION CERTIFICATIONS AND APPROVALS.

1. TECHNICAL/REQUIREMENT PERSONNEL CERTIFICATION (Requiring activity) (Required for ALL dollar thresholds). I hereby certify that the necessary supporting information and data provided (e.g., verifying the Government's minimum needs or schedule requirements or other rationale), which form the basis for the recommendation for this justification for other than full and open competition, is accurate and complete to the best of my knowledge and belief.

Name/Title	**Signature and Date**
[redacted]	[redacted]

2. BUREAU SMALL BUSINESS SPECIALIST REVIEW (Required for ALL dollar thresholds). I have reviewed this justification, including any attached documentation, if applicable, and concur/☒ ☐ do not concur with the findings.

Name/Title	**Signature and Date**
[redacted]	[redacted]

3. BUREAU CHIEF INFORMATION OFFICER APPROVAL (Required for purchases of Information Technology (IT) when over $15 million and not exceeding $75 million) (Contracting Activity). I have reviewed this justification and find it to be accurate and complete to the best of my knowledge and belief. Therefore, unless additional approvals are required as prescribed herein, as the Bureau Chief Information Officer, I hereby approve this justification for other than full and open competition.

Name/Title	**Signature and Date**

4. CONTRACTING OFFICER CERTIFICATION AND APPROVAL (Certification required for ALL dollar thresholds) (Approval applies only when not exceeding $750K). I have reviewed this justification and have determined the circumstances of this acquisition support the justification for other than full and open competition. I also certify this justification is accurate and complete to the best of my knowledge and belief. Therefore, unless additional approvals are required as prescribed herein, I hereby approve this justification for other than full and open competition.

Name/Title	**Signature and Date**
	[redacted]

5. ADVOCATE FOR COMPETITION APPROVAL (Required when over $750K and not exceeding $15 million) (NON-DELEGABLE) (Contracting Activity). I have reviewed this justification and find it to be accurate and complete to the best of my knowledge and belief. Therefore, unless additional approvals are required as prescribed herein, as the Advocate for Competition, I hereby approve this justification for other than full and open competition.

Name/Title	**Signature and Date**
[redacted]	[redacted]

6. BUREAU CHIEF PROCUREMENT OFFICER APPROVAL (Required when over $15 million and not exceeding $75 million) (Contracting Activity). I have reviewed this justification and find it to be accurate and complete to the best of my knowledge and belief. Therefore, unless additional approvals are required as prescribed herein, as the Bureau Chief Procurement Officer or authorized designee, I hereby approve this justification for other than full and open competition.

Name/Title	**Signature and Date**
[redacted]	[redacted]

7. HEAD OF THE CONTRACTING ACTIVITY OR AUTHORIZED DESIGNEE APPROVAL (Required when over $15 million and not exceeding $75 million) (Contracting Activity). I have reviewed this justification and find it to be accurate and complete to the best of my knowledge and belief. Therefore, unless additional approvals are required as prescribed herein, as the Head of the Contracting Activity or authorized designee, I hereby approve this justification for other than full and open competition.

Name/Title	**Signature and Date**
[redacted]	[redacted]

8. TREASURY CHIEF INFORMATION OFFICER APPROVAL (Required for purchases of Information Technology (IT) when exceeding $75 million). (NON-DELEGABLE). I have reviewed this justification and find it to be accurate and complete to the best of my knowledge and belief. Therefore, unless additional approvals are required as prescribed herein, as the Treasury Chief Information Officer, I hereby approve this justification for other than full and open competition.

Name/Title	**Signature and Date**

9. SENIOR PROCUREMENT EXECUTIVE APPROVAL (Required when exceeding $75 million) (NON-DELEGABLE). I have reviewed this justification and find it to be accurate and complete to the best of my knowledge and belief. Therefore, I hereby approve this justification for other than full and open competition.	
Name/Title (Acting) Senior Procurement Executive	**Signature and Date**