RETRAINEE - JOB CREATION
Training Proposal for:
Illumina, Inc.

Agreement Number: ET16-0254

Panel Meeting of: December 4, 2015

ETP Regional Office: San Diego
Analyst: S. Godin

PROJECT PROFILE

<table>
<thead>
<tr>
<th>Contract Attributes:</th>
<th>Industry Sector(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Creation Initiative</td>
<td>Biotechnology/Life Sciences</td>
</tr>
<tr>
<td>Priority Rate</td>
<td>Engineering</td>
</tr>
<tr>
<td>Retrainee</td>
<td>Manufacturing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Counties Served:</th>
<th>Repeat Contractor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda, San Diego, Santa Clara, San Mateo, San Francisco</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Union(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Employees in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA: 2,588</td>
</tr>
<tr>
<td>U.S.: 2,943</td>
</tr>
<tr>
<td>Worldwide: 4,237</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turnover Rate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Managers/Supervisors: ( % of total trainees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11%</td>
</tr>
</tbody>
</table>

FUNDING DETAIL

<table>
<thead>
<tr>
<th>Program Costs</th>
<th>(Substantial Contribution)</th>
<th>(High Earner Reduction)</th>
<th>Total ETP Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>$748,000</td>
<td>$173,000 30%</td>
<td>$0</td>
<td>$575,000</td>
</tr>
</tbody>
</table>

In-Kind Contribution: 100% of Total ETP Funding Required $1,281,034
## TRAINING PLAN TABLE

<table>
<thead>
<tr>
<th>Job No.</th>
<th>Job Description</th>
<th>Type of Training</th>
<th>Estimated No. of Trainees</th>
<th>Range of Hours</th>
<th>Average Cost per Trainee</th>
<th>Post-Retention Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Retrainee Priority Rate</td>
<td>Business Skills, Commercial Skills, Computer Skills, Continuous Improvement, Manufacturing Skills</td>
<td>1,000</td>
<td>8-200</td>
<td>*$403</td>
<td>$15.93</td>
</tr>
<tr>
<td>2</td>
<td>Job Creation Initiative Retrainee</td>
<td>Business Skills, Commercial Skills, Computer Skills, Continuous Improvement, Manufacturing Skills</td>
<td>200</td>
<td>8-200</td>
<td>$860</td>
<td>$13.28</td>
</tr>
</tbody>
</table>

* Reflects Substantial Contribution

### Minimum Wage by County:
Alameda, San Francisco, San Mateo, Santa Clara $16.44 (Retrainee), $13.70 (Job Creation); San Diego: $15.93 (Retrainee) $13.28 (Job Creation);

### Health Benefits:
- Yes
- No
This is employer share of cost for healthcare premiums – medical, dental, vision.

### Used to meet the Post-Retention Wage?
- Yes
- No
- Maybe
Although employer provides health benefits, they are not being used to meet Post-Retention Wage.

## Job 1 Wage Range by Occupation (Incumbent Worker)

<table>
<thead>
<tr>
<th>Occupation Titles</th>
<th>Wage Range</th>
<th>Estimated # of Trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales/Marketing Staff</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Administration Support Staff</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Production/Distribution Staff</td>
<td>475</td>
<td></td>
</tr>
<tr>
<td>IT Staff</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Manager/Supervisor</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Customer Support Staff</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Engineering Staff</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Technical Staff</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Field Service Support Staff</td>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION

Founded in 1998 and headquartered in San Diego, Illumina, Inc. (Illumina) (www.Illumina.com) develops and manufactures equipment and instruments for genetic analysis, sequencing, genotyping, gene expression, and protein analysis. These products are widely used in the pharmaceutical, biotechnology, academic, and government fields.

Illumina meets out-of-state competition standards as an industrially classified company (primarily in the physical, engineering and life sciences) and is eligible for priority industry reimbursement. This proposal will be administered in San Diego at Illumina’s headquarters and is designed to train workers from six Illumina facilities located in San Diego (2), San Francisco, Santa Clara, Hayward and Redwood City.

PROJECT DETAILS

This will be Illumina’s fourth project, the third in the last five years. ET11-0106 provided extensive training in product development and manufacturing processes needed to produce the BeadXpress and VeraCode medical devices. ET13-0274 delivered training to improve quality and efficiency, leadership development, and building high performance teams.

Training in the proposed project is driven by the implementation of a companywide Enterprise Resource Planning System (ERP) and the need to train on processes and procedures for the manufacture of new medical devices.

The new ERP system (SAP) will improve the Company’s overall productivity and link operations across all departments. This ERP program focuses on defining, simplifying, and implementing core business processes and replaces three older legacy systems. Illumina has invested in excess of $50 million on this software. The program went live during the third quarter of 2015. Training for frontline workers is expected to commence during the 4th quarter of 2015 and 1st quarter of 2016.

In addition, Illumina continues to need extensive training in new product development, continuous improvement, and manufacturing processes to produce its medical devices. Training will include newly developed courses on Gene Sequencing Kits and Reagents that were not included in previous projects. Proposed training will build upon skill sets delivered in previous projects. Trainees from prior projects will not receive duplicate training.
Retraineep - Job Creation

Illumina projects that it will hire at least 500 net new employees during the term of this agreement, of which 200 are included in the proposed Agreement, to support its market and business expansion of new products and services as well as those currently under development. A 295,000 square foot facility adjacent to San Diego headquarters is currently under construction to support its expansion goals. These new employees will be hired across all occupations and will require extensive training to develop the requisite skills needed to support the Company's expansion plans.

The date-of-hire for all Job Creation trainees (Job Number 2) will be within the three-month period before contract approval or within the term-of-contract. These trainees will be hired into “net new jobs” as a condition of contract. The Substantial Contribution requirement will be waived for these trainees.

Training Plan

The proposed Agreement will offer training topics to new and incumbent employees and expanded learning opportunities for those who participated in previous projects. The proposed training plan will allow Illumina to continue to manufacture and distribute FDA-approved medical devices while improving performance standards.

Business Skills (5%): Trainees in all occupations will receive skill sets needed to manage internal and external customer relationships and speak to the Illumina products with acumen. Project management skills will enable employees to manage higher workloads and a variety of customer accounts. Training will also include topics such as active listening skills, advanced sales techniques, communication and customer service skills, and facilitator training. These skill sets will improve operational efficiency.

Commercial Skills (10%): Training will be delivered to trainees in all occupations. Training will focus on newly developed courses in Sequencing and Microarray Kits and Reagents. Training will also concentrate on standardizing, analyzing, measuring, and improving processes.

Computer Skills (70%): Training will be delivered to all occupations in the new SAP ERP system. Training will include: Reconciling Reports, End-to-End Business Management, Finance, Product Planning and Materials Management, Manufacturing and Service Delivery, Marketing and Sales, Inventory Management, Quality, and Shipping and Payment.

Continuous Improvement (10%): Training will be delivered to all newly-hired employees as well as employees who did not receive this training in the last agreement. This training will consist of quality control, change management, decision making skills, problem solving, and process improvement skills.

Manufacturing Skills (5%) Training will be delivered to Production and Distribution Staff, Field Support Staff, and selected Managers/Supervisors. Training will provide the skill sets needed to better understand Illumina's new product technology and improve company manufacturing operations, practices and techniques. Chemical Management Skills and On-Time Delivery Techniques courses will reduce unnecessary ingredient waste, improve on-time delivery, and help trainees to fulfill customer orders within a shorter time frame.

Substantial Contribution

Illumina is a repeat contractor with payment earned in excess of $250,000 and a former Substantial Contribution at the 15% level at the San Diego and Hayward facilities within the past five years (See Prior Project Table). Illumina has elected to take a 30% across-the-board
substantial contribution for all participating facilities in this proposal. This is for administrator ease, allowing incumbent trainees to be enrolled in one job number, rather than two. As such, reimbursement for trainees in Job Number 1 will be reduced by 30% to reflect the Company’s $173,000 Substantial Contribution to the cost of training.

Commitment to Training

Illumina reports that it spends in excess of $2M on training annually at its California facilities. The Company provides the following training: quality systems software updates, safety and environmental awareness training, sexual harassment and violence in the workplace prevention; and professional development skills training. The Company also provides commercial skills training to its Field Service Engineers, Field Application Scientists and Technical Support Staff coordinating new installations, inspections, instrument calibration and validation and troubleshooting systems.

ETP funds will not displace the existing financial commitment to training. Safety training is, and will continue to be, provided in accordance with all pertinent requirements under state and federal law.

Electronic Recordkeeping

Illumina has requested, and staff has approved, its request to utilize their Learning Management System.

Training Infrastructure

Illumina’s training department will work directly with Spectra Consulting, LLC to administer the ETP-funded Agreement. The Company expects to start training within 10 days of Panel approval. The ETP Agreement will be managed out of Illumina’s company headquarters in San Diego by the Illumina staff that has handled prior ETP Contracts.

Impact/Outcome

Training goals include the implementation of the Company’s new ERP system, development of new technologies and products and the skill sets necessary to successfully manage company growth while providing long term career opportunities for employees.

RECOMMENDATION

Staff recommends approval of this proposal.

PRIOR PROJECTS

The following table summarizes performance by Illumina under an ETP Agreement that was completed within the last five years:

<table>
<thead>
<tr>
<th>Agreement No.</th>
<th>Location (City)</th>
<th>Term</th>
<th>Approved Amount</th>
<th>Payment Earned $</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET13-0274</td>
<td>Statewide</td>
<td>2/04/13 – 2/03/15</td>
<td>$320,770</td>
<td>$269,176</td>
<td>(84%)</td>
</tr>
<tr>
<td>ET11-0106</td>
<td>Statewide</td>
<td>12/31/10 – 12/30/12</td>
<td>$248,400</td>
<td>$222,820</td>
<td>(90%)</td>
</tr>
</tbody>
</table>
DEVELOPMENT SERVICES

Illumina has retained Spectra Consulting, LLC in Sierra Madre to assist with development of this proposal for a flat fee of $3,500.00.

ADMINISTRATIVE SERVICES

Spectra Consulting, LLC will also perform administrative services in connection with this proposal for a fee not to exceed 13% of payment earned.

TRAINING VENDORS

To Be Determined
Exhibit B: Menu Curriculum

Class/Lab Hours
8 - 200
Trainees may receive any of the following:

**BUSINESS SKILLS**
- Advanced Customer Service Skills
- New Product Features, Maintenance, and Procedures
- Advanced Sales Skills
- Project Management Essentials
- Communication Skills
- Making Meetings Work
- Presentation Skills
- in the Trainer/Facilitator Skills
- Finance for Non-Financial Employees
- Active Listening Skills

**COMMERCIAL SKILLS**
- Illumina 101
- Illumina 101 Lite
- iScan Level I
- iScan Level II
- HiScan SQ L1
- HiScan SQ L2
- HiSeq Level 1
- HiSeq Level 2
- MiSeq Install
- Infinium FAS
- Nexterra Library Prep
- TruSeq Library Prep
- HiSeq X: FAS
- HiSeq X/3k/4k: FSE
- Amplicon Library Prep
- MiSeqDx
- MiSeq FSE
- NextSeq FAS
- NextSeq FSE
- HiSeq FAS

**COMPUTER SKILLS**
- ERP (SAP) Implementation Skills
  - Reconciling Reports
  - End-to-End Business Management
  - Finance
  - Product Planning/Cost
Materials Management
Manufacturing and Service Delivery
Marketing and Sales
Inventory Management
Quality Management
Shipping and Payment

CONTINUOUS IMPROVEMENT
Leadership Skills
Conflict Management
Dealing with Change
Mentoring/Coaching Employees
5 Choices for Extraordinary Productivity
Process Improvement Skills
Quality Control
Decision Making/Problem Solving Skills

MANUFACTURING SKILLS
Manufacturing Operations/Practices/Techniques
New Product Technology Training
Chemical Management/Formulation Skills
On-Time Delivery Techniques
Material Inspection
Work Instructions
Records/Documents/Procedures and Practices
Manufacturing Corrective Action Procedures
Labeling and Packaging Control
Non-Conforming Materials

Note: Reimbursement for retraining is capped at 200 total training hours per trainee, regardless of the method of delivery.