

INTUITION &  
LOGIC



# **INTUITION & LOGIC - SABUR, INC MENTOR - PROTÉGÉ DEVELOPMENT PLAN**

**FOR ENGINEERING CONSULTANT**



**Prepared Exclusively For:**

**Missouri Department of Transportation**

External Civil Rights Division/DBE Supportive Services

Mentor/Protégé Program

1590 Woodlake Drive

Chesterfield, MO 63017

November 2011



July 23, 2010

Mr. Lester Woods Jr.  
External Civil Rights Director  
MoDOT  
105 West Capital Ave  
PO Box 270  
Jefferson City, Mo 65102

**Re: Intuition & Logic – Sabur, Inc. Mentor Protégé Development Plan**

Dear Mr. Woods,

Thank you for the opportunity to present the Intuition & Logic – Sabur, Inc. Mentor Protégé Development Plan. We are excited about the program and anxious to show you our capabilities.

Please review the following document and if you have any questions or would like additional information, please call [redacted] (36) 711-1111 or email at [redacted] or call [redacted] (428-1111) or email at [redacted]

We look forward to hearing from you soon.

Best regards,

President  
Intuition & Logic

[redacted signature]  
President  
Sabur, Inc



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## A. Mentor & Protégé

### Mentor

The Mentor is **Intuition & Logic**, SIC CODE 871110 Engineers-Civil, NAICS CODE 541330 Engineering Services, Duns Number: 101192388, *Established 2000*.

#### Services:

- Transportation: Highway Design
- Municipal: Planning & Development
- Stormwater: Analysis & Design
- Wastewater: Collection Systems
- Land Development: Civil Engineering & Resource Planning
- Coastal: Design for Coastal Protection & Restoration
- Dams: Hydroelectric Dam Design

#### Contact Information:

Intuition & Logic  
101192388  
101192388  
101192388

### Protégé

The Protégé is **Sabur, Surveying, Inc.** NAICS CODE 541370 Surveying & Mapping, NAICS CODE 541330 Civil Engineering, DBE Certification Renewal Date: 3/1/2014, Duns Number: 807514633, *Established 1993*.

#### Services:

- Transportation: Right-of-way & Topographic Surveys
- Stormwater: Topographic Surveys, Flood Plain Studies
- GIS: Location of Structures (GPS) and Attributes
- Land Development: Civil Design for Subdivisions
- Capital Improvements: Roadway Design & Sewer Systems
- Construction Staking: Highways, Roadways, Bridges, Sewers, & Buildings

#### Contact Information:

Sabur, Surveying, Inc.  
807514633  
807514633  
807514633



## B. Plan Objectives & Goals

“Good business is built on relationships”

Interacting with people that you know, like and trust provides a strong foundation for success. Businesses with competitive and complementary skills, mutual respect, and common philosophy are at the heart of winning teams.

Intuition & Logic (I&L) and Sabur, Inc have been working together since 2008. We were introduced through The Metropolitan St. Louis Sewer District (MSD), a mutual client of ours. Sabur is one of MSD’s go-to surveying firms and I&L had won a 2 year General Service Agreement (GSA) for sewer and channel engineering design. Sabur had provided the survey for one of the GSA project sites and I&L was very impressed with the survey quality and immediately began teaming with Sabur for other work around the region.

“...Successful teammates depend on one another to understand the big picture, keep an eye out for project pitfalls and challenges and engage with solutions to help the team succeed”

Through the years and multiple successful project ventures, Sabur has become the preferred surveyor for I&L projects. I&L includes Sabur on the teams for municipal and agency projects, regardless of minority requirements. I&L teams with Sabur because of their surveying excellence, professional integrity and uncompromised values.

The team relationship has strengthened to the point where we are each interested in the success of the other firm and we want to help each other thrive and grow. I&L has all of Sabur’s project information, resumes and other marketing material in house so that we may easily include them on proposals. I&L and Sabur both keep a vigilant eye out for project opportunities, even if the opportunity only fits one of the firms. For example if I&L see a request for proposal for surveying services only, we will forward the RFP to Sabur and offer any insight we may have to help with their success. The same is true for opportunities that Sabur notices that may only fit for I&L.

I&L wants to participate in the Mentor Protégé Program because Sabur’s growth and success helps I&L’s growth and success. By growing Sabur’s capabilities, I&L is developing a stronger, more capable team. These strengths and capabilities manifest themselves in terms of engineering excellence, deeper project understanding, and better products and a better team for our clients.

Like any relationship, I&L and Sabur can get in a comfortable routine of successful teaming as Civil Engineer and Surveyor. There is nothing wrong with this scenario, but if we challenge ourselves to grow, stretch and achieve beyond the status quo, we will

develop team strengths and identify opportunities that we otherwise would not realize. We need to strive for the next level of interaction, beyond teaming. The Mentor Protégé Program provides the framework for this next level!

MoDOT will enjoy the benefit of our Mentor Protégé relationship in terms of extremely competent consultants, better professional services and very successful projects! Through the MoDOT – I&L/Sabur relationship and I&L/Sabur's increased understanding of MoDOT personnel, protocol and recourses, I&L/Sabur can grow into a valuable resource beyond the standard client consultant relationship.

Sabur selected I&L for the Mentor Protégé program and I&L accepted because of our current working relationship. We had several discussions about the program and what it might mean for each firm and determined that this is an excellent opportunity to build on our current alliance and achieve two main goals:

1. Strengthen Team through Sharing Resources – Further develop and strengthen our professional relationship and capabilities beyond the typical Civil Engineer – Surveyor affiliation to one of strategic business partnership. The Mentor Protégé program is the perfect platform on which we can further define mutually beneficial skills and develop new skills and strengthen our professional relationship.
2. Develop into a valued MoDOT asset – just as I&L and Sabur know, like and trust each other; we can develop a valuable partnership with MoDOT where MoDOT has a treasured team they know, trust and can rely on and that will grow in terms of capabilities to offer MoDOT. We can become MoDOT's go-to team! This is a learning process where we discover MoDOT's needs and custom fit our capabilities to meet these needs. We can continue to grow into an extension of MoDot and help identify future MoDOT needs.



## C. Scope of Assistance

The I&L-Sabur team proposes three (3) primary area of assistance categories as follows:

1. Construction Management
2. Technical Assistance
3. Project Management

The following table provides an “at a glance” look at the major areas of assistance and the primary items on which we will measure our progress. The pages that follow provide a detailed scope for each of the three assistance areas:

<i>Primary Areas of Assistance</i>			
Measurable Category	Construction Management	Technical Assistance	Project Management
1.1 Construction Management Scoping with MoDOT	X		
1.2 Review Preconstruction Activities	X		
1.3 Review During Construction Activities	X		
1.4 Review Reporting and Tracking Tools	X		
1.5 Review Tracking Tools	X		
1.6 Review Schedule Tools	X		
1.7 Other Items as identified in Task 1.1	X		
2.1 Microstation		X	
2.2 Geopak		X	
3.1 Scope			X
3.1.1 Review Scope Writing			X
3.1.2 Review Scope Management			X
3.2 Schedule			X
3.2.1 Review Schedule Creation			X
3.2.2 Review Schedule Management			X
3.3 Budget			X
3.3.1 Review Budget Creation			X
3.3.2 Review Budget Management			X
4.0 Potential MoDOT Mentor Protégé Project Identification	X	X	X
5.0 Quarterly Progress Reporting:	X	X	X

## 1.0 Construction Management (CM):

The goal of construction management training is to learn the successful execution of capital projects for the Missouri Department of Transportation. The mentor will provide the benefit of years of experience and expertise in pursuit of developing the construction management skill sets for the Protégé as follows:

- 1.1 Construction Management Scoping with MoDOT
  - 1.1.1 Prepare Agenda
  - 1.1.2 Submit Agenda to MoDOT for Review
  - 1.1.3 MoDOT review and comment
  - 1.1.4 Revise Agenda
  - 1.1.5 CM Meeting at MoDOT
  - 1.1.6 Prepare Meeting Summary Notes
  - 1.1.7 Submit Summary to MoDOT for Review and Comment
- 1.2 Review Preconstruction Activities
  - 1.2.1 Familiarization with CDs
  - 1.2.2 Communication protocol
  - 1.2.3 Forms
  - 1.2.4 Schedule
- 1.3 Review During Construction Activities
  - 1.3.1 Lines and Grades
  - 1.3.2 Material
  - 1.3.3 Schedule
- 1.4 Review Reporting and Tracking Tools
  - 1.4.1 Written documentation
    - 1.4.1.1 Change Orders
    - 1.4.1.2 RFI's
    - 1.4.1.3 Weight tickets
    - 1.4.1.4 Contractor Invoices
    - 1.4.1.5 Others
  - 1.4.2 Distribution
    - 1.4.2.1 Pdf format
    - 1.4.2.2 Email
    - 1.4.2.3 Us post
- 1.5 Review Tracking Tools
  - 1.5.1 Construction progress tracking
  - 1.5.2 Outstanding item tracking (CO, RFI, etc)
- 1.6 Review Schedule Tools
  - 1.6.1 Schedule updating
- 1.7 Other Items as identified in Task 1.1
- 1.8 Protégé Progress Tracking and Reporting
  - 1.8.1 Prepare Draft CM Program Memorandum
  - 1.8.2 Submit Draft to MoDOT for Review and Comment
  - 1.8.3 MoDOT Review
  - 1.8.4 Incorporate Final Comments



### 1.8.5 Submit Final to MoDOT

## 2.0 Technical Assistance:

The Mentor will provide training on Microstation and GeoPak software which is required for use on MoDOT projects. The training will consist of CADD file management, file merging, MoDOT specific civil field ID codes, the drafting of “chains”, the generation of contours, and the application of the correct MoDOT specified levelization.

### 2.1 Microstation

- 2.1.1 Identify training objectives
- 2.1.2 Determine training program: methods, locations and schedule
  - 2.1.2.1 MoDOT training course topics and schedule
  - 2.1.2.2 ILINC training topics and schedule
- 2.1.3 Determine measures of success
- 2.1.4 Execute training program

### 2.2 Geopak

- 2.2.1 Identify training objectives
- 2.2.2 Determine training program: methods, locations and schedule
  - 2.2.2.1 MoDOT training course topics and schedule
  - 2.2.2.2 ILINC training topics and schedule
- 2.2.3 Determine measures of success
- 2.2.4 Execute training program

### 2.3 Protégé Progress Tracking and Reporting

- 2.3.1 Prepare Draft Training Program Memorandum
- 2.3.2 Submit Draft to MoDOT for Review and Comment
- 2.3.3 MoDOT Review
- 2.3.4 Incorporate Final Comments
- 2.3.5 Submit Final to MoDOT

## 3.0 Project Management:

The Mentor will provide training for the three major components of project management: scope, schedule and budget. The Protégé will be trained to know and understand the elements of project management: tasks, resources, and time and their interrelatedness and ongoing interdependence on one another.

### 3.1 Scope

- 3.1.1 Review Scope Writing
  - 3.1.1.1 Clarifying Project Objectives In the Scope
  - 3.1.1.2 Specifying Executable Tasks to achieve Objectives
  - 3.1.1.3 Milestones and Deliverables as Tasks
  - 3.1.1.4 Scope/Task Numbering System
- 3.1.2 Review Scope Management
  - 3.1.2.1 Project Manager Role
    - 3.1.2.1.1 Client Communication
    - 3.1.2.1.2 Staff Communication and Monitoring
  - 3.1.2.2 Client Role

- 3.1.2.3 Communication Tools
  - 3.1.2.3.1 Verbal
  - 3.1.2.3.2 Written
  - 3.1.2.3.3 Change Orders
  - 3.1.2.3.4 Documentation
- 3.2 Schedule
  - 3.2.1 Review Schedule Creation
    - 3.2.1.1 Identify Scheduling Software
      - 3.2.1.1.1 MS Projects, Excel and other scheduling tools
    - 3.2.1.2 Importing Scope into Schedule
      - 3.2.1.2.1 Match Scope Task Descriptions and Numbers EXACTLY
    - 3.2.1.3 Link Tasks
      - 3.2.1.3.1 Predecessor Tasks
      - 3.2.1.3.2 Link Type (Finish to Start, Start to Start, Finish to Finish, Start to Finish)
      - 3.2.1.3.3 Lags
    - 3.2.1.4 Scope – Schedule Feedback Loop: adding scope tasks to create a better schedule and therefore a clearer scope
  - 3.2.2 Review Schedule Management
    - 3.2.2.1 Identify and Tracking the Critical Path
    - 3.2.2.2 Schedule Reporting to Client and Staff
    - 3.2.2.3 Training staff to manage and track schedule
    - 3.2.2.4 Overcoming Schedule Overruns
      - 3.2.2.4.1 Using the Scheduling Software to Evaluate and Communicate Options
- 3.3 Budget
  - 3.3.1 Review Budget Creation
    - 3.3.1.1 Identify Budget Software
      - 3.3.1.1.1 MS Projects, Excel and other scheduling tools
    - 3.3.1.2 Importing Scope into Budget
      - 3.3.1.2.1 Match Scope Task Descriptions and Numbers EXACTLY
    - 3.3.1.3 Assigning Man-hours
      - 3.3.1.3.1 Personnel Categories
      - 3.3.1.3.2 Direct Expenses
      - 3.3.1.3.3 Scope – Budget Feedback Loop: adding text into Scope to clarify what, exactly, is part of each scope task (design standards used, design methods used, analysis limits such as length, number, iterations, direct expenses included and excluded...etc).
  - 3.3.2 Review Budget Management
    - 3.3.2.1 Tracking Tools
      - 3.3.2.1.1 Links to payroll



- 3.3.2.1.2 PM access to daily timesheets
- 3.3.2.2 Budget Reporting to Client and Staff
- 3.3.2.3 Budget Management Training for staff
- 3.3.2.4 Overcoming Budget Overruns
- 3.4 Protégé Progress Tracking and Reporting
  - 3.4.1 Prepare Draft CM Program Memorandum
  - 3.4.2 Submit Draft to MoDOT for Review and Comment
  - 3.4.3 MoDOT Review
  - 3.4.4 Incorporate Final Comments
  - 3.4.5 Submit Final to MoDOT

#### 4.0 Potential MoDOT Mentor Protégé Project Identification

Objective: respond to a minimum of three (3) solicitations in the first year.

- 4.1 MoDOT Meeting
  - 4.1.1 Develop Draft Agenda
    - 4.1.1.1 Discuss Possible Project Type and Size
    - 4.1.1.2 Discuss and identify future applicable MoDOT needs
  - 4.1.2 Submit draft agenda to MoDOT
  - 4.1.3 MoDOT comments
  - 4.1.4 Schedule Meeting
  - 4.1.5 Attend Meeting

#### 5.0 Quarterly Progress Reporting

The Protégé will submit to MoDOT quarterly reports specifying progress on each of the 3 development assistance (training) items for a total of 4 reports as follows:

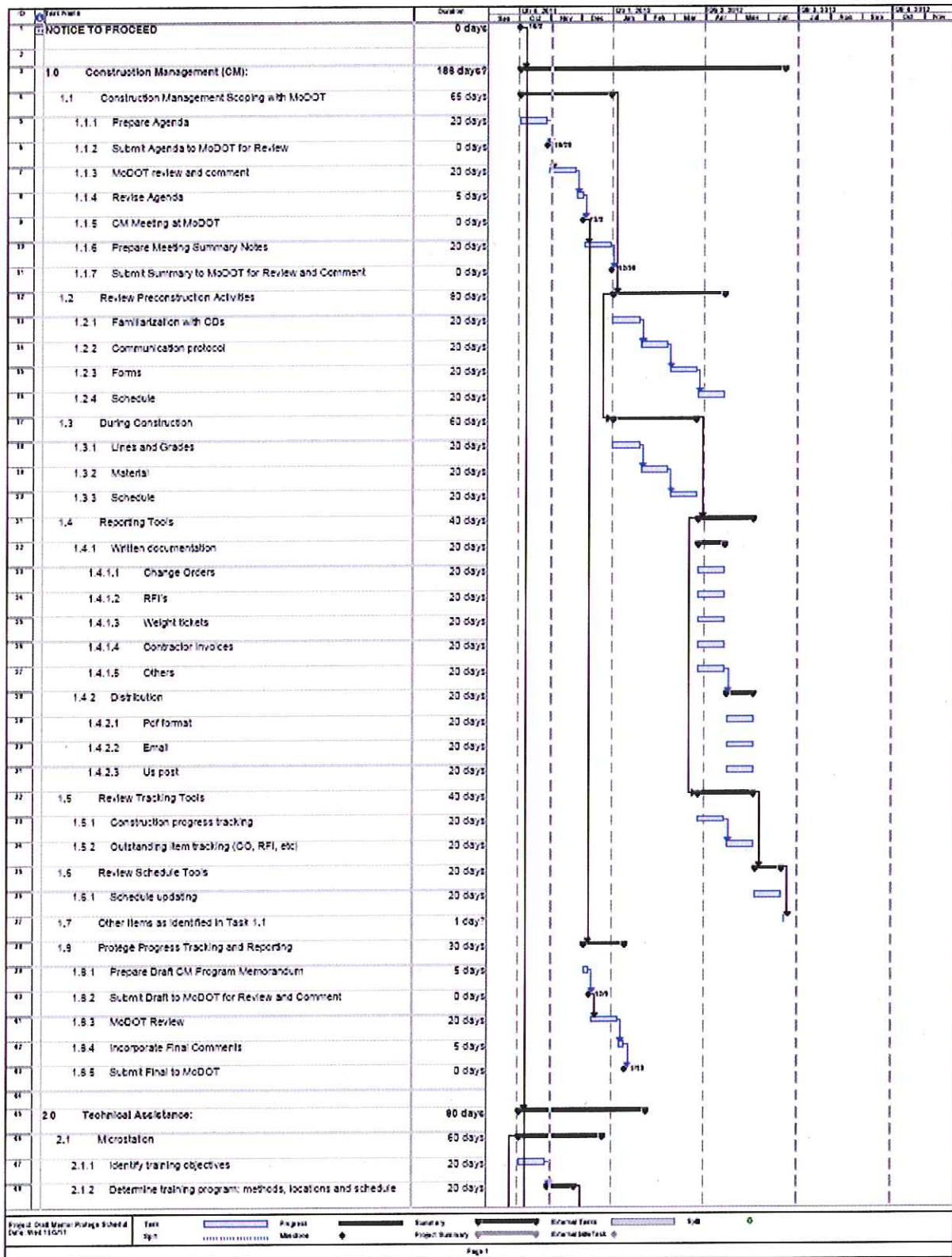
- 5.1 Prepare 1<sup>st</sup> Quarter Update
  - 5.1.1 Mentor prepare quarterly evaluation
  - 5.1.2 Mentor Submit evaluation to Protégé
  - 5.1.3 Protégé Prepare quarterly update
  - 5.1.4 Submit to MoDOT
  - 5.1.5 Schedule Quarterly Update Meeting
- 5.2 Attend Quarterly Update Meeting Prepare 2<sup>nd</sup> Quarter Update
  - 5.2.1 Mentor prepare quarterly evaluation
  - 5.2.2 Mentor Submit evaluation to Protégé
  - 5.2.3 Protégé Prepare quarterly update
  - 5.2.4 Submit to MoDOT
  - 5.2.5 Schedule Quarterly Update Meeting
  - 5.2.6 Attend Quarterly Update Meeting
- 5.3 Prepare 3<sup>rd</sup> Quarter Update
  - 5.3.1 Mentor prepare quarterly evaluation
  - 5.3.2 Mentor Submit evaluation to Protégé
  - 5.3.3 Protégé Prepare quarterly update
  - 5.3.4 Submit to MoDOT
  - 5.3.5 Schedule Quarterly Update Meeting
  - 5.3.6 Attend Quarterly Update Meeting

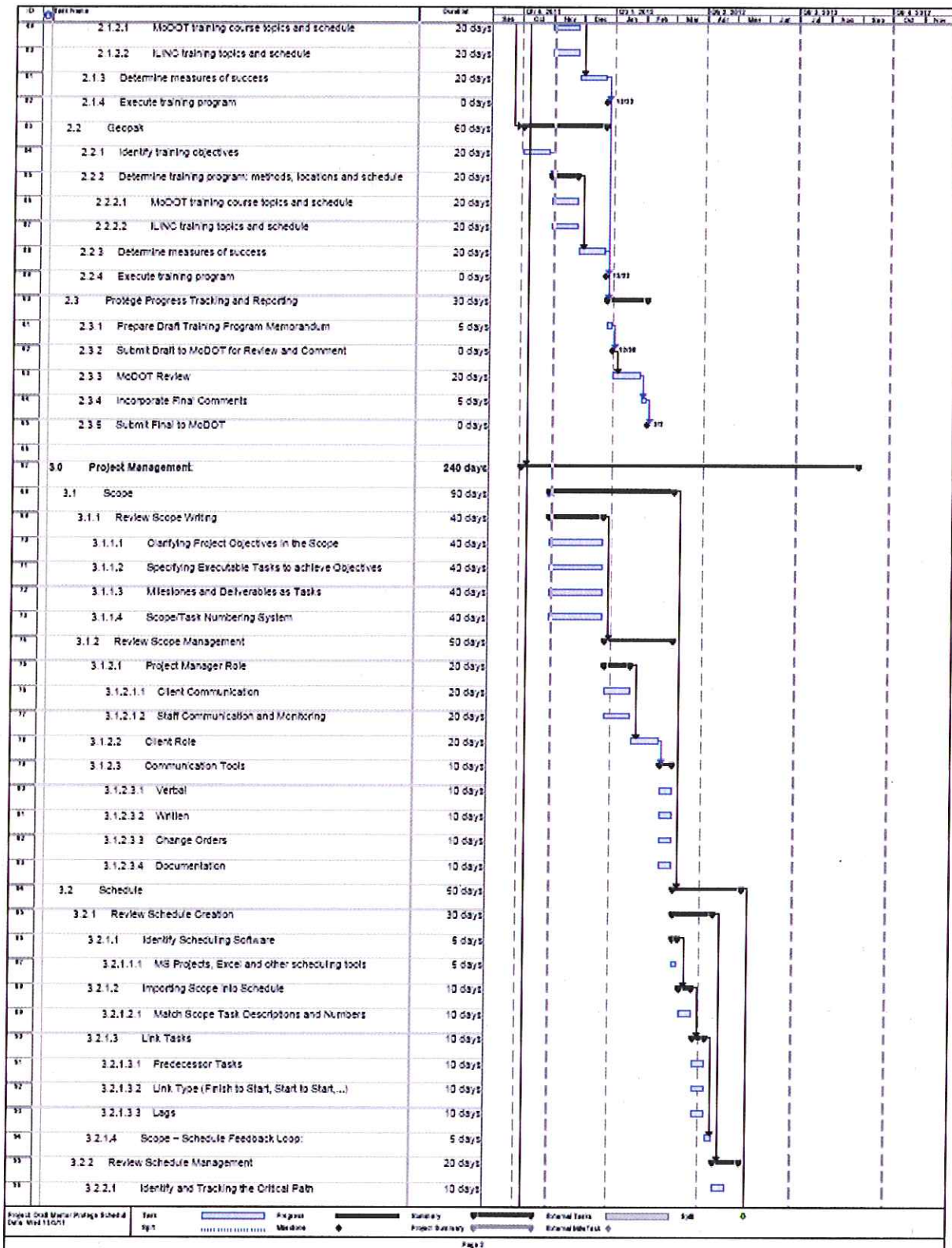
- 5.4 Prepare 4<sup>th</sup> Quarter Update
  - 5.4.1 Mentor prepare quarterly evaluation
  - 5.4.2 Mentor Submit evaluation to Protégé
  - 5.4.3 Protégé Prepare quarterly update
  - 5.4.4 Submit to MoDOT
  - 5.4.5 Schedule Quarterly Update Meeting
  - 5.4.6 Attend Quarterly Update Meeting

## **D. Schedules of Assistance**

The following Gantt Charts illustrate the I&L-Sabur Mentor Protégé schedule of assistance. The Gantt Chart provides the task name, duration of each task and the interrelationship between tasks (that is: predecessors and successors). Submittal, milestones and meetings are illustrated by the diamond symbol with the corresponding date.



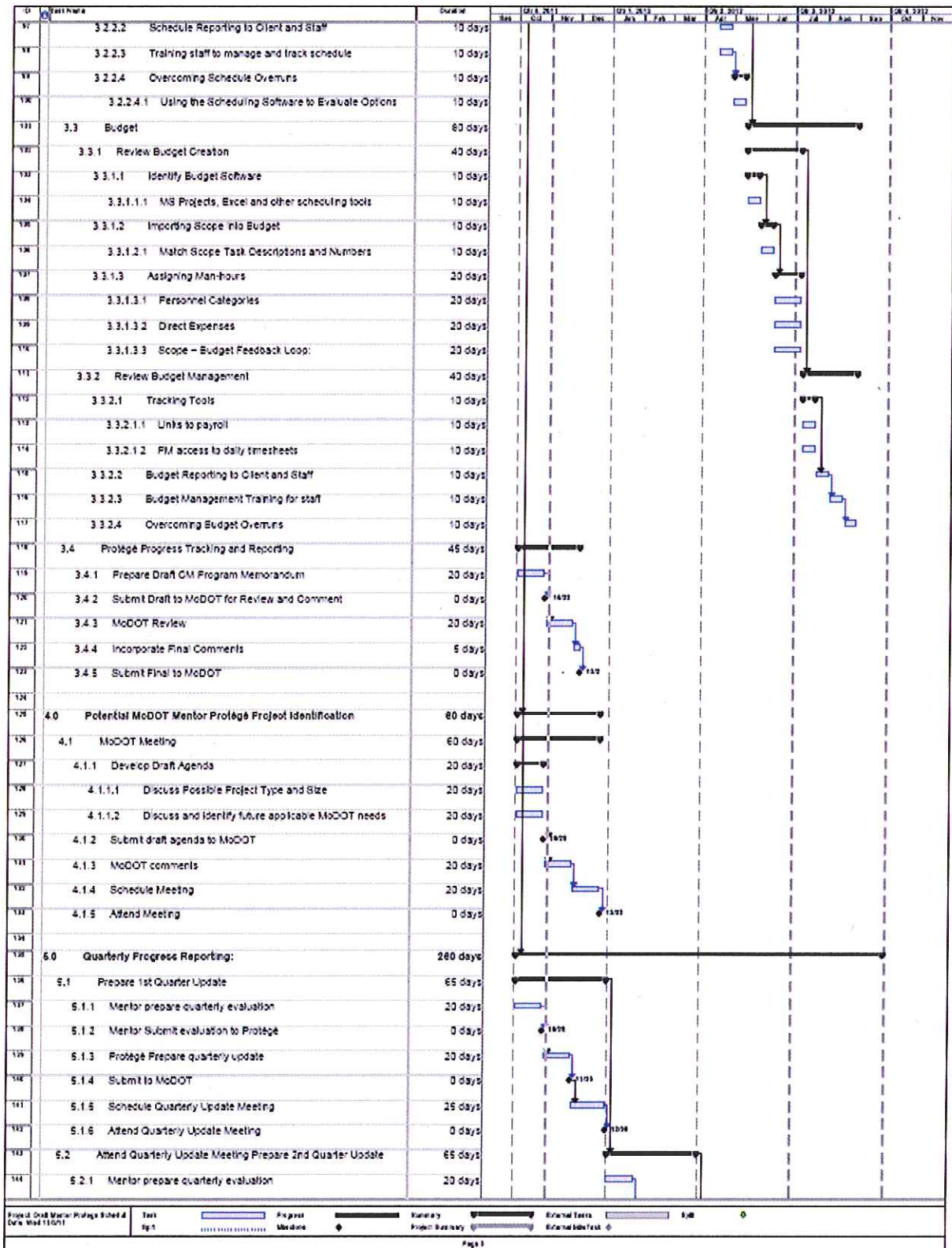




Project: Civil Marine Portage Schedule Date: Wed 11/20/17  
 Task: [ ] Progress [ ] Summary [ ] Critical Tasks [ ] Sub [ ] 0  
 Legend: [ ] Progress [ ] Summary [ ] Critical Tasks [ ] Sub [ ] 0  
 Page 2

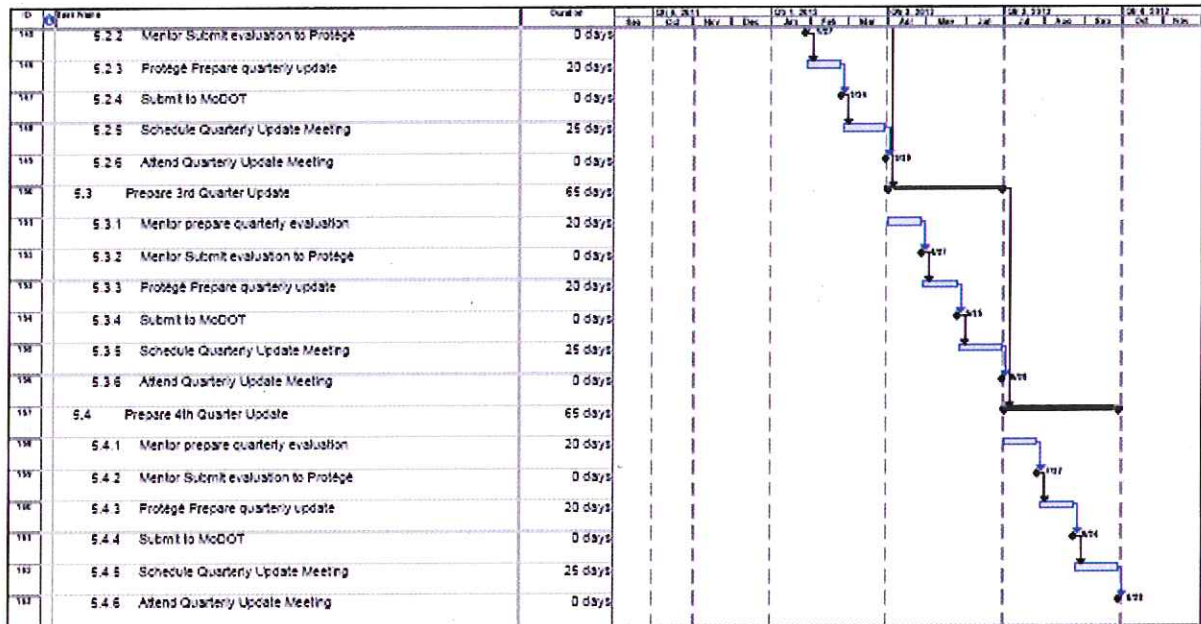








Intuition & Logic – Sabur  
Mentor Protégé Application



Project: Civil Works Package Schedule  
Date: Wed 11/01/11

Task: [ ]  
Milestone: [ ]

Progress: [ ]  
Summary: [ ]  
Project Summary: [ ]

Actual Start: [ ]  
Actual End: [ ]

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## **E. Responsibilities**

The Mentor agrees to provide an initial assessment of the proposed activities/skills the Protégé is able to provide at the time of entering into the Mentor-Protégé Development Plan. The training/development provided to the Protégé by the Mentor shall be based on this preliminary assessment.

The Mentor will also provide the Protégé with periodic evaluations on the areas of training/development to be provided as identified in the initial assessment.

The Mentor will be responsible for following the Development Plan. This will include the design of the training program for the three areas of training: (1) construction management (2) technical assistance and (3) project management. The mentor will provide the methodology for training the protégé, scheduling the training activities, and documenting the progress of the protégé from the training.

The protégé will be responsible for actively engaging with the mentor by attending all training sessions and participating in the training as scheduled. The Protégé will be responsible for submitting any reports as required by the mentor to evaluate the progress of the training and to assist in achieving training milestones.

## **F. Evaluation**

The Mentor will complete an evaluation form for each category of training and for individual milestones related to the training. A sample Evaluation form is included at the end of this document.

## **G. Duration**

The minimum time frame for which the Development Plan will remain in effect is twelve (12) months and will not exceed 3 years.



## H. Key Personnel

### Mentor Staff:

- President
- PE – Project Manager
- Project Engineer
- Senior CAD Designer

### DBE Protégé Staff:

- Missouri PLS, President
- Vice-President
- Office Manager
- Land Surveyor in Training (LSIT)
- CADD Drafter and office Calculations

## I. Reimbursement

Reimbursement is subject to MoDOT guidelines and approval upon MoDOT review. A formal Mentor/DBE Protégé fee schedule will follow when approved in accordance with pending MoDOT contract agreements to cover the direct and indirect cost for such services rendered by the Mentor for specific training and assistance to the DBE Protégé for the duration of the agreement and allowable to specific individual contracts.

## J. Copies of Agreements

Copies of all agreements will be found as attachments to this document for reference by the Mentor-Protégé Oversight Committee.

Copies of any agreements entered into by the Mentor of the Protégé at a later date, but during the term of the Development Plan, will be forwarded to the Mentor-Protégé Oversight Committee for approval within ten (10) days of execution of such agreement.

## K. Prohibitions

The protégé cannot be forced into an exclusive arrangement with the Mentor. Under no circumstances is the Mentor permitted to have an ownership interest of any kind in Protégé.



## SKILL EVALUATION FORM RATING SCALE

### 1. QUESTIONING & ENGAGING:

*The protégé recognizes decisions, issues and problems when looking at a topic.*

- **Strongly Agree**
- **Agree**
- **Undecided**
- **Disagree**
- **Strongly Disagree**

The protégé discovers independently an issue or problem which needs a decision or solution after exploring a topic

- **Strongly Agree**
- **Agree**
- **Undecided**
- **Disagree**
- **Strongly Disagree**

The protégé formulates questions about topics with support from the mentor that resolves the question and allows meaningful focus on project issues and problem solving.

- **Strongly Agree**
- **Agree**
- **Undecided**
- **Disagree**
- **Strongly Disagree**

### NEW SKILLS:

The protégé has learned to efficiently use and apply new skills as provided by the mentor.

- **Strongly Agree**
- **Agree**
- **Undecided**
- **Disagree**
- **Strongly Disagree**

## SKILL EVALUATION FORM RATING SCALE

### SYNTHESIZING

The protégé accurately restates the decisions and solutions of the mentor and demonstrates understanding

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

The protégé recombines information to develop excellent problem solving strategies.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

### 2. STRATEGIC PLANNING & APPLICATION

The protégé identifies new sources of information likely to build upon existing skills to service MoDOT contracts.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

The protégé makes high quality decisions that demonstrate understanding and efficient use of the newly acquired training.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

The protégé is able to discern the best use of and application of new skills.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree



## SKILL EVALUATION FORM RATING SCALE

### COMMUNICATION SKILLS FOR TEAMING:

The protégé has learned to maintain a clear, concise, and meaningful dialog with the mentor for successful teaming and project leadership.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

The protégé can successfully design project schedules and meets project milestones.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

### 4. INTELLIGENT PROJECT PURSUIT:

The protégé recognizes and applies prudent and logical use of resources in the pursuit of projects requiring skills in harmony with the new training.

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

### 6. DOCUMENTATION:

*The protégé recognizes and applies skills required for the documentation to coordinate, manage, and facilitate projects and specific tasks.*

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

### 7. FUTURE (PROTÉGÉ) EMPLOYEE DEVELOPMENT:

*The protégé is positioned to train new employees and thus perpetuate the training provided by the mentor and prepare for growth.*

- Strongly Agree
- Agree
- Undecided
- Disagree
- Strongly Disagree

