Global Solutions, LLC.

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SBE, MBE, DBE, 8(a)/SDB

Your Strategic Partner



OUTLINE OF PRESENTATION

- Company Information
- 2. Management
- 3. Mission & Vision Statement
- 4. Core Capabilities
- 5. Market Sectors
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- 7. Staff Experience
- 8. Recent Projects
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COMPANY INFORMATION Who is Global?

- Global is a Civil Engineering firm offering services in Transportation/Traffic Engineering, Sanitary Sewer, Storm Sewer, Water, MS4, Green Infrastructure, Project Controls, Document Controls and Project Schedule (using Primavera P6).
- Global also provides staff augmentation services/staffing solutions to our clients.
- Global is certified as a Minority Business Enterprise (MBE), Disadvantaged Business Enterprise (DBE) and SBA 8(a)/SDB

Management Vinay K. Polepalli, MS, MBA, PE, PMP

Experience:

20+ years combined experience as a Principal of the firm, Project Manager, Senior Engineer and Project Engineer

Education:

- MS in Civil Engineering, University of Kentucky
- MBA from University of Louisville with a specialization in entrepreneurship

Certifications:

- P.E. licensed professional engineer in the states of Ohio, Kentucky and Indiana
- Project Management Professional (PMP) certified by PMI
- Leadership Positions in Professional Organizations:
 - Board member Kentuckiana Post Society of American Military Engineers
 - Member of Small Business Committee, Kentuckiana Post SAME



Professional Staff Gregory Traupman, PE

Experience:

> 7 years of experience designing roadways, traffic signals, stormwater networks, and analyzing hydraulic and hydrologic data.

Project Experience:

Ohio River Bridges Project, US 31 Kokomo Corridor, SR66, DPW Cultural Trail, Possum Run Bridge, City of Delphi Utility Relocation

Education:

- BS in Civil Engineering, Purdue University, West Lafayette, IN
- > INDOT Certified Technician Program

Certifications:

P.E. licensed professional engineer in the states of Kentucky and Indiana

Memberships:

> ASCE

Professional Staff Steve M. Kurowsky, PE

Experience:

> 17 years of experience designing various elements of roadways and associated utilities and right-of-way takings. Highly experienced with Maintenance of Traffic plan preparation.

Project Experience:

Ohio River Bridges Project, KY 22, I-65, KY 163, KY 1501, I-640, Industrial Parkway, SR 63,SR 111, WV 34 Teays Valley Road, I-64 widening

Education:

- MS in Civil Engineering, University of Louisville 1997
- > BS in Civil Engineering, University of Louisville 1996

Certifications:

> P.E. in the state of Kentucky

Professional Staff Eric Brady, PE

Experience:

Has over 20 years of experience working for MSD, Louisville, KY in various capacities. In his professional career he has served as a design engineer, a construction project manager, a Regional Manager for Operation of Treatment Plant Facilities, and a Construction Engineer for the construction of large diameter sewer pipe installations.

Project Experience:

- Hikes Lane Interceptor (72" RCP) \$10,000,000
- Southeast Interceptor Relief Sewer (60" RCP) \$8,000,000
- River Road Interceptor (48" Hobas) \$5,000,000
- Many projects in the collection system expansions in North County,
 Okolona, and Dixie Highway corridors, including:
 - Barbourmeade/Brownsboro Farms Collectors
 - Glenview Area Collectors, Friendly Hills Collectors
 - Pond Run Collectors , Big Run Interceptor, Big Run Collectors
- Worked on the Response to inquiries from Federal EPA during the formative period of the Louisville MSD Consent Decree (Finalized in 2005)

Education:

BS in Civil Engineering Technology, Western KY University - 1991

Certifications:

> P.E. in the state of Ohio



Professional Staff Tony L. Johnson, Sr.

Experience:

- > 30 years of technical experience with the Federal Government
- Responsible for managing the Louisville District Army Corps of Engineers As-Built Program
- Responsible for the ongoing long-term execution of Quality Assurance for both Civil Works and Military Program Missions for all Federal Government Projects issued by Louisville District Corps of Engineers

Project Experience:

- Project Management: Facilitate execution of Contract Specifications and As-Built Requirements for project close-out.
- Fiscal Policy: Manage funding request for labor cost; Estimate labor cost for review work prior to execution; Maintain sound record-keeping.
- Inter Office Relations: Construction Division; Project Management and Budget Divisions, Engineering Division, CADD / BIM Management, Mailroom and Records Holding.
- Outer Office Relations: Corp's Construction Representatives, Contractors, Field Engineers, McAlpine, Fort Knox and Fort Campbell's Residence Offices.

Education:

Western Kentucky University, Bachelor of Science in Industrial Technology



Professional Staff Eleanor Beasley

Experience:

> 11 years of experience in office administration, database management, Customer Service Coordinator, Marketing Coordinator, Marketing Director. Highly motivated, organized and driven individual.

Project Experience:

- Document Controls Manager on Ohio River Bridges Project Downtown Crossing
- □ Responsible for Maintenance of 20,000 plus constituent database for Kentucky Opera. Used Raiser's Edge Software. Responsible for development and execution of very technical queries and exports from database
- ☐ Maintenance of 100,000 plus constituent database using Raiser's Edge Software for The Fund for the Arts organization. Responsible for development and execution of very technical queries and exports from database, graphic design, web production, research and printing, mass mailings etc.

Education:

Jefferson Community and Technical College, Louisville, KY

Mission Statement

To consistently provide quality, dependable and affordable service and to continually strive to develop long-term and mutually-beneficial relationships with our Clients

Vision Statement

To be the Partner of Choice for both Public and Private sector clients



Core Capabilities Civil Engineering Services

- Highways/Roadways
- > Traffic Engineering
- Sanitary Sewer Design
- Storm Sewer, MS4 and Green Infrastructure
- > Erosion Prevention and Sediment control Plans
- Site Civil –Retail/Commercial, Industrial and Military
- > Utility Coordination
- Project Controls
- Project Schedule Primavera P6
- Document Controls
- > Construction Administration Services



Market Sectors

Private Sector:

- A&E firms: Jacobs Engineering, Parsons Transportation Group, Stanley Consultants, Michael Baker Corp, URS, Brown and Caldwell, Gresham Smith and Partners, QK4, AECOM, HDR, Northrop Grumman etc
- Highway Engineering firms
- Construction Companies

Public Sector:

- Municipal Utilities
 - MSD, Louisville Water Company, LGE
 - MSD, Cincinnati, OH
 - Louisville Water Company
- Local Government
- State Government
- Federal Government
 - U.S. Army Corps of Engineers
 - Veterans Administration



Global's Valued Clientele



































ARCHITECTURE ENGINEERING INTERIORS PLANNING

NORTHROP GRUMMAN





Recent Projects

- Ohio River Bridges Project East End Crossing Sub-consultant to Jacobs Engineering
- Ohio River Bridges Project Downtown Crossing Sub-consultant to Jacobs Engineering
- Glenview Bluff WQTP Elimination Project MSD, Louisville, KY
- TVA Paradise Portal Building Civil Engineering
- Polk Run WWTP Reliability and Service Upgrades Cincinnati MSD,
 Cincinnati, OH
- Klondike Interceptor Project MSD, Louisville, KY
- Chenoweth Run Interceptor Project Section I & II MSD, Louisville, KY
- Ohio River Bridges Project Section 2, Michael Baker Corp/KYTC
- Emergency Water Supply Project VA, Louisville, KY
- MS 4 Storm Water Program MSD, Louisville, KY
- MS 4 Program Support URS Corporation
- Master Service Agreement Water Distribution HDR, Inc.
- MS4 BMPs and SWPP document development Gresham Smith and Partners, Inc.



Recent Water/Wastewater Projects

SAMPLE PROJECTS Glenview Bluff WQTC Elimination Project

Client: MSD, Louisville, KY

Project Scope:

Involves in designing a 1,600 LF of 2.5" force main and eliminate an existing water quality treatment plant and install a grinder pump and odor control equipment. This proposed force main connects an existing 8" gravity sewer

<u>Critical Design Elements:</u>

Densely populated neighborhoods, utilities, crossing a twolane highway, close proximity of fully matured trees.

Construction Cost: \$400K

SAMPLE PROJECTS Klondike Interceptor Project

Client: MSD, Louisville, KY

Project Scope:

Involves in designing a 3,400 LF of 36" gravity sewer interceptor connecting to Hikes Lane Interceptor on the downstream end and Jeffersontown Branch 1, 24" force main on the upstream end. 120 LF of 48" tunnel under a four-lane highway.

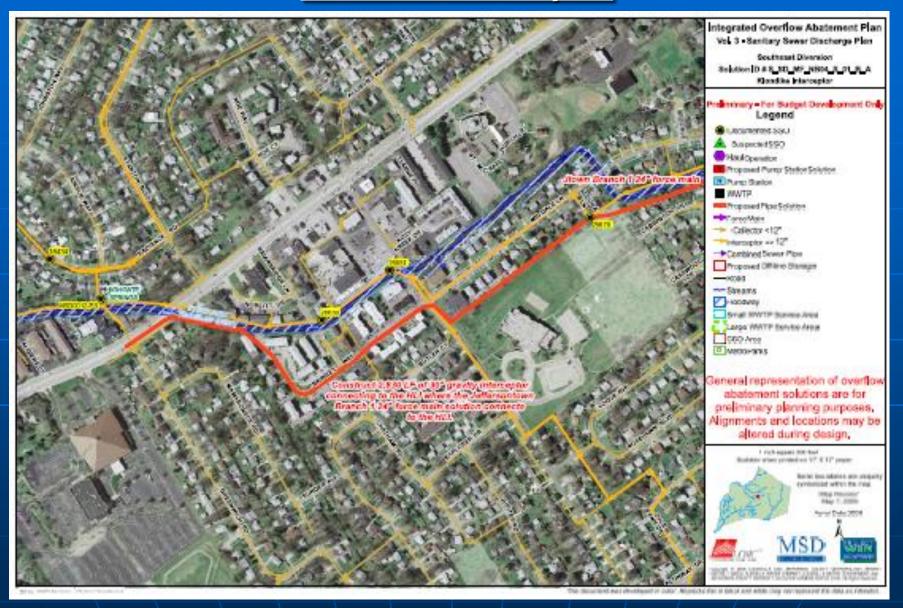
<u>Critical Design Elements:</u>

Densely populated neighborhoods, utilities, crossing a fourlane highway, Major blue line stream crossing, close proximity of monitoring wells, fully matured trees.

Construction Cost: \$1.5 million



Klondike Interceptor





Ohio

Agency:

Metropolitan Sewer District

Dates:

2011 - Ongoing

Type of Project:

Sanitary Sewer – Wastewater

Treatment Plant

Length:

N/A

Estimated Construction Cost:

N/A

Type of Improvement:Reliability and

Service Upgrades

Project Management:

Project Manager -Vinay K. Polepalli, PE, PMP

Polk Run Wastewater Treatment Plant, Cincinnati, OH

Mr. Polepalli worked on the project as a Project Manager. He was responsible for the overall deliverables of the project . Global is a sub-consultant to Brown and Caldwell Inc.

Project Scope:

Global was responsible for conducting studies on existing secondary clarifiers, plant drainage system, non-potable water and RAS/WAS pumping system.

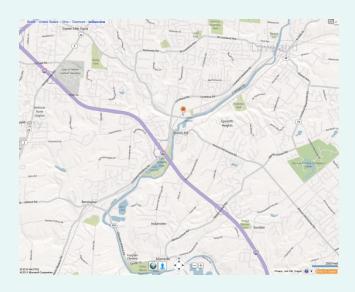
Global was responsible for the following tasks:

- Prepare existing conditions document
- Prepare Feasibility and Alternative Analysis Document
- Prepare Preliminary Engineering Report

Critical Design Elements:

Secondary Clarifiers, Plant Drainage System, RAS/WAS pumping system, Non-Potable Water





Kentucky

Agency:

Metropolitan Sewer District

Dates:

2010 - Ongoing

Type of Project: Sanitary Sewer

Length:
1.0 Miles (Approx)

Estimated Construction Cost:\$2 million

Type of Improvement:CSO/SSO

Project Management: Project Manager -Vinay K. Polepalli, PE, PMP

Chenoweth Run Interceptor Section 1 and Section 2, Louisville, Kentucky

Mr. Polepalli worked on the project as a Project Manager. He was responsible for the overall deliverables of the project .

Project Scope:

Section 1:

Involves in designing a 2,200 LF of 10" gravity sewer interceptor . This 10" line intercepts the sanitary sewer flow at the Berrytown Treatment Plant at the existing influent pump station to the treatment plant. The pump station will be converted to a manhole. Existing Berrytown Treatment Plant will be decommissioned as part of this project. The proposed sewer line crosses a 60" waterline. Extensive coordination with LWC was performed.

Section 2:

Involves in designing a 4,000 LF of 10" gravity sewer interceptor. As part of this project, existing St. Clair Pump Station and Starview Treatment Plant will be eliminated.

Critical Design Elements:

Densely populated neighborhoods, utilities, crossing a residential neighbor hood. and fully matured trees, Elimination of two existing wastewater treatment plants, pump station, crossing of a blue line stream, and working with neighbors to minimize impacts to their property.



Commonwealth of Kentucky

Agency:

Veterans Affairs

Dates:

2009-2011

Rural and/or Urban:

N/A

Length: N/A

Estimated

Construction Cost: \$2 million

Type of Improvement:

Emergency Backup Water Supply

Project Management:

Project Manager -Vinay K. Polepalli, PE, PMP

Emergency Water Supply Project, Veterans Affairs Medical Center, Louisville, Kentucky

Global Solutions team (Global Solutions and HDR, Inc.) was awarded the design consulting services contract by Veterans Affairs to design a backup water supply system in case of disruptions to the Louisville Water Company water supply system. Mr. Polepalli was the project manager for the project.

The purpose of the project was to improve the capacity of the interstate segment and also improve the geometric design of existing interchanges within the project limits to meet the current design and safety standards.

SCOPE OF WORK:

Global Solutions team provided feasibility/alternative analysis and design services for an emergency water supply system to replace 100% of water consumption for a four day period in the event Louisville Water Company ("LWC") was unable to supply water to the VAMC-Louisville. LWC is the sole source of water to the VAMC. In the event the LWC can no longer provide water to the VAMC, VA would have to shut down their medical center until water can be provided. Many of the VAMC systems depend on water to include the boiler and chiller plants, the restroom facilities and the kitchen and dining facilities.

Global Solutions team conducted a feasibility study/alternative analysis and presented the results to the VA staff. Preliminary cost estimates were developed as part of the feasibility study/alternative analysis. Global presented the solutions to the VA staff and recommended a solution to address the needs of the VA facility.

VA decided to pursue Global's recommended solution. Based on this decision, Global developed construction plans, detailed cost estimates and specifications.

This solution involved in constructing a 500,000 gallon water tower, which gives VA hospital a four day storage capacity in case of a disruption to the water supply system. The water in the tank constantly turns over as the main water supply is fed into the storage tank and the water is being distributed from the storage tank to the existing distribution system.

This project was constructed in 2011. Construction Cost was \$1,600,000.00.

Kentucky

Agency:

Metropolitan Sewer District

Dates:

2009 - 2010

Type of Project:Sanitary Sewer –
Wastewater
Treatment Plant

Length:

N/A

Estimated Construction Cost:

N/A

Type of Improvement:

Storm Water Pollution Prevention Plan

Project Management:

Project Manager -Vinay K. Polepalli, PE, PMP Cedar Creek and Hite Creek WWTP SWPPP and BMPs, Louisville, Kentucky

Mr. Polepalli worked on the project as a Project Manager. He was responsible for the overall deliverables of the project . Global is a sub-consultant to Gresham Smith and Partners Inc.

Project Scope:

Global was responsible for working with Gresham Smith and Partners in developing Storm Water Pollution Prevention Plan for Cedar Creek and Hite Creek wastewater treatment plants.

As part of this scope, numerous visits were made to the treatment plants to document the existing conditions of the plant and interview the plant staff to document the current practices at the plant to prevent Storm Water from getting polluted.

Critical Design Elements:

Developing Best Management Practice (BMP) document.

Recent Roadway Projects

SAMPLE PROJECTS Ohio River Bridges Project Downtown Crossing

Client: Jacobs Engineering

Project Scope:

Assist Jacobs Engineering with Design Quality Audit, Field Engineering and Document Control responsibilities.

Construction Cost: \$1.3 Billion

SAMPLE PROJECTS Ohio River Bridges Project East End Crossing

Client: Jacobs Engineering

Project Scope:

Assist Jacobs Engineering with roadway design and general field office administration.

Construction Cost: \$1.3 Billion

Commonwealth of Kentucky

Agency:

Kentucky Transportation Cabinet

Dates:

2005-2011

Rural and/or

Urban:

Urban

Length:

1.0 Miles (Approx)

Estimated

Construction Cost:

\$350 million

Type of Improvement:

New Bridge

Project Management:

Global Solutions
Project Manager Vinay K. Polepalli,
PE, PMP

LOUISVILLE SOUTHERN INDIANA OHIO RIVER BRIDGES PROJECT – Section 2, I-65 Bridge, JEFFERSON COUNTY, KENTUCKY

Mr. Polepalli served as the project manager for Global Solutions scope of work. The purpose of the project was to design a new long span bridge across Ohio River. Michael Baker Jr. Inc. was the prime consulting firm. Global provided following services, Project Controls, Maintenance of Traffic, Traffic Engineering – Signing Plans and Striping Plans, Bridge Hydraulic Analysis

Project Controls. Provided the following fiscal and schedule management controls for the project in accordance with the specific requirements of the GEC's Project Control Procedures.

- •Expand Initial Cost Projection & Schedule.
- •Provide Monthly Update to Cost & Schedule
- •Acquire Monthly Schedule Updates.
- •Revise Primavera Schedule
- •Monthly Schedule Comparison Report

Maintenance of Traffic

- •Develop MOT concepts and reports
- •Develop MOT plans, profiles and cross-sections

Signing and Striping Plans

- •Develop signing plans for the proposed bridge
- •Develop striping plans for the proposed bridge

Bridge Hydraulic Analysis

•Developed and Updated Hydraulic Model – HEC-RAS was used to accomplish this task

Commonwealth of Kentucky

Agency:

Kentucky
Transportation
Cabinet

Dates:

2000-2002

Rural and/or

Urban:

Rural

Length:

7.0 Miles (Approx)

Estimated Construction Cost:

\$55 million

Type of Improvement:

Interstate Widening

Project Management:

Project Manager -Vinay K. Polepalli, PE, PMP I-65 SECTION "A" WIDENING PROJECT (MP 64.8 TO MP 71.5) HARDIN, LARUE AND HART COUNTIES, KENTUCKY

(Mr. Polepalli has worked on the following project as a project manager while he was employed by HMB Consulting Engineers in Kentucky & Indiana)

The purpose of the project was to improve the capacity of the interstate segment and also improve the geometric design of existing interchanges within the project limits to meet the current design and safety standards.

Existing Conditions:

Interstate 65 section within the project limits is heavily traveled by trucks and cars alike. Truck traffic accounts for approximately 40% of the total traffic volume and as a result of which the pavement is in considerable distress. Further, capacity analysis of this section of interstate indicated an unacceptable level of service. Investigation of geometric design of existing interchanges revealed that acceleration and deceleration lane lengths are inadequate. Several existing drainage structures were silted up completely.

Proposed Methodology:

Phase I Design Services for I-65 widening and reconstruction project began just north of Munfordville interchange (MP 64.8) and ends at Western Kentucky Parkway (MP 91.3) in Elizabethtown. Three alternative typical sections were evaluated and a final typical section was picked based on several factors, such as, cost of construction, right-of-way impacts and impacts to the drainage structures, bridge structures etc. This area of the project being in karst topography, extensive erosion control measures were designed to decontaminate the storm water entering into the sink holes. Special precautions were taken to cap the sinkholes that were affected.

Capacity analysis was performed on the entire length of the project segment to identify the existing level of service and analyze the required capacity for the design year traffic volumes. Two different interchange design alternatives were developed for consideration and an alternative was chosen for a final design. Interchange geometric design sheets were prepared for approval by the central office. Maintenance of traffic was performed on the entire stretch of the project. Preliminary drainage folders were prepared for submittal. Culvert situation sheets were prepared were necessary.

Commonwealth of Kentucky

Agency:

Kentucky Transportation Cabinet

Dates:

1998 - 2004

Rural and/or Urban:

Rural and Urban

Length:

3.5 Miles

Estimated Construction Cost:

\$30 million

Type of Improvement:

Widening existing Duncannon Road to Four Lanes with a depressed median.

Project Management:

Project Manager -Vinay K. Polepalli, PE, PMP.

I-75 Interchange - Duncannon Road Widening - Phase II Madison County, Kentucky

(Mr. Polepalli has worked on the following project as a project manager while he was employed by HMB Consulting Engineers in Kentucky & Indiana)

The purpose of the project was to widen existing Duncannon Road from two lanes to four lanes with a depressed median. Several segments of existing Duncannon Road were realigned to meet current design standards. However, the alignment of existing Duncannon Road in the urban section was retained to minimize impacts to the adjacent properties and as well as minimize impacts to environmentally sensitive areas. The project also involved in designing a new interchange with I-75.

Several horizontal alignments and vertical grades were developed to design the proposed Duncannon Road and provide access to I-75.

Extensive capacity analysis was performed to identify the best Interchange design for Duncannon Road and I-75 interstate in Madison County, Kentucky. Traffic volumes were obtained from Kentucky Transportation Cabinet. Several different preliminary interchange designs were developed and evaluated . Based on several factors an option was selected for detailed design.

A detailed Interchange geometric sheet was prepared depicting the geometric information of various elements of the Interchange design. Detailed development sheets were also produced to show the cross-slope transitions in all the critical areas of the interchange to make sure that a smooth transition occurs.

A very high importance was given to the environmentally sensitive areas to eliminate any impacts from the proposed alignment. To achieve this task, extensive coordination between the project team members was encouraged and implemented. Several design elements were tweaked to minimize the impacts to the adjacent environmentally sensitive areas.

Drainage analysis was performed and drainage structures were designed to meet the proposed design criteria. Storm sewer drainage system was designed in the urban section of the project and roadside ditches were designed in the rural section to drain water away from the pavement.

Erosion control plans were developed to minimize the potential silt build up in the natural channels due to the proposed construction. Proposed drainage structures were protected during construction from any silt build up by taking appropriate erosion control measures.

Commonwealth of Kentucky

JEFFERSON BOULEVARD EXTENSION PROJECT – FROM McCAWLEY ROAD TO POPLAR LEVEL ROAD – JEFFERSON COUNTY, KENTUCKY (Mr. Polepalli has worked on the following project as a project manager while he was employed by HMB Consulting Engineers in Kentucky & Indiana)

Agency:

Jefferson County Public Works Department The proposed road extended the existing Jefferson Boulevard from McCawley Road to Poplar Level Road to reduce traffic congestion in the Jefferson Mall area and improved traffic flow.

Dates:

1998 - 2002

The purpose of the new road was to reduce the traffic congestion in the Jefferson Mall area by giving motorists an alternative route. The project included designing two new bridges and three traffic signals at McCawley Road, Fern Valley Road and Poplar Level Road intersections.

Rural and/or Urban: Urban

Length:
2.0 Miles
(approximately)

Final construction plans, specifications and estimates were submitted to Jefferson County Public Works. As part of the project scope, intersections with McCawley Road, Fern Valley Road and Poplar Level Road were designed to meet safety standards and provide adequate capacity to function at a desirable level of service. All the intersections were designed as signalized intersections. Capacity analysis was performed at all these three intersections to determine the required capacity to obtain desirable level of service.

Estimated Construction Cost:\$12 million

Type of Improvement:

Extend existing Jefferson Boulevard from McCawley Road to Poplar Level Road Signal layout sheets were prepared to meet City of Louisville specifications. Extensive coordination with Jefferson County and District 5 office was also performed to develop signal layout sheets. Extensive drainage analysis was performed at all these intersections to drain the water as well as design drainage structures that meet the proposed design criteria. Right of way impacts were documented at these intersections.

Project Management:

Project Engineer -Vinay K. Polepalli, PE, PMP The project was constructed in 2004 and various local agencies, residents and business community were pleased with the outcome of the project.

Commonwealth of Kentucky

Duncannon Road Widening - Phase II Madison County, Kentucky

(Mr. Polepalli has worked on the following project as a project manager while he was employed by HMB Consulting Engineers in Kentucky & Indiana)

Agency:

Kentucky Transportation Cabinet

The purpose of the project was to widen existing Duncannon Road from two lanes to four lanes with a depressed median. Several segments of existing Duncannon Road were realigned to meet current design standards. However the alignment of existing Duncannon Road in the urban section was retained to minimize impacts to the adjacent properties and as well as minimize impacts to environmentally sensitive areas. The project also involved in designing a new interchange with I-75. The intent of the project was to provide an access to I-75 from Duncannon Road.

Dates:

1998 - 2004

Several horizontal alignments and vertical grades were developed to design the proposed Duncannon Road and provide access to I-75. Several entrances to Duncannon Road were improved and several intersections were realigned to improve safety and access to the proposed alignment.

Rural and/or Urban:

Rural and Urban

A very high importance was given to the environmentally sensitive areas to eliminate any impacts from the proposed alignment. To achieve this task, extensive coordination between the project team members was encouraged and implemented. Several design elements were tweaked to minimize the impacts to the adjacent environmentally sensitive areas.

Length: 3.5 Miles

Estimated Construction Cost:

Drainage analysis was performed and drainage structures were designed to meet the proposed design criteria. Storm sewer drainage system was designed in the urban section of the project and roadside ditches were designed in the rural section to drain water away from the pavement.

Type of Improvement:

\$30 million

Widening existing Duncannon Road to Four Lanes with a depressed median.

Extensive utility coordination was performed to identify all the existing utilities and coordinate any future plans or ongoing construction with utility companies in the vicinity of the project.

Erosion control plans were developed to minimize the potential silt build up in the natural channels due to the proposed construction. Proposed drainage structures were protected during construction from any silt build up by taking appropriate erosion control measures.

Project Management:

Project Manager -Vinay K. Polepalli, PE, PMP Capacity analysis was performed at various intersections as well as on various segments of Duncannon Road to study the existing Level of Service as well as predict the future level of service based on the traffic numbers provided by the state. Left turn or Right turn storage lanes were designed at various intersections to improve the level of service.

Coordination with railroad authorities was performed to locate the bridge piers to ensure appropriate horizontal & vertical clearances for rail traffic.

Commonwealth of Kentucky

CENTRAL AVENUE PROJECT Jefferson County, Louisville, Kentucky

(Mr. Polepalli has worked on the following project as a project manager while he was employed by HMB Consulting Engineers in Kentucky & Indiana)

Agency:

City of Louisville

The purpose of the project was to provide grand entrance/access to world famous Churchill Downs and improve traffic flow near Churchill Downs area. To obtain this goal Central Avenue was proposed to extend over existing railroad to intersect Crittenden Drive.

Dates:

1998 - 2001

Existing Central Avenue was a busy and congested collector street without a proper access to any major arterial highway. Central Avenue provides access to the world famous Churchill Downs. Existing intersections were not meeting current design standards.

Rural and/or Urban:

Urban

The project began at the proposed intersection with the Crittenden Drive and ended at the existing intersection with Taylor Blvd. Several intersections along the Central Avenue were redesigned to meet design standards and improve the safety and level of service.

Length:

2.5 Miles

Existing traffic volumes were obtained from KYTC and future traffic volumes were calculated based on the growth factors to obtain design year traffic volumes. Capacity analysis was then performed on the design year traffic volumes to determine the required capacity at all the intersections along the project length. Several of these intersections were signalized. Signal layout sheets for all these intersections were prepared and extensive coordination with City of Louisville was performed to develop layout sheets that met City standards.

Estimated Construction Cost:

\$15 million

Type of

Improvement:Roadway widening and Roadway extension

Utility coordination was performed to identify all the existing underground and above ground utilities to minimize any potential conflicts with various design elements of the project. Storm Sewer pipe network was designed based on this utility coordination to minimize any potential conflicts with various utilities underground. Extensive drainage analysis was performed at all these intersections to drain the water as well as design drainage structures that meet the proposed design criteria. Coordination with several local agencies was performed to improve the communications and as well address concerns of the agencies during design stages of the project. Coordination with railroad authorities was performed to locate the bridge piers and make sure that enough clearances, both horizontal and vertical, were provided for a smooth passage of rail traffic. Right of way plans were prepared to acquire necessary right of way. Maintenance of traffic was accomplished in several phases.

Project Management: Project Engineer Vinay K. Polepalli, PE, PMP

The project was constructed in three different sections. This project was completed in 2000 and has impressed local officials, business owners, and residents in Louisville, Kentucky.

Commonwealth of Kentucky

Agency:

City of Louisville

Dates:

2000 - 2002

Rural and/or Urban:

Urban

Length:

0.75 Miles

Estimated Construction Cost:

\$3.5 million

Type of Improvement:

Roadway widening and Roadway extension

Project Management:

Project Manager Vinay K. Polepalli, PE, PMP **2nd Street Widening – Phase II, Louisville, Kentucky** (Mr. Polepalli has worked on the following project as a project manager while he was employed by HMB Consulting Engineers in Kentucky & Indiana)

Project Purpose and Need:

To improve the traffic flow in the network of streets in downtown Louisville, KY and also to give a grand entrance into the city from Indiana.

Project Details:

 2^{nd} Street Phase II Widening Project was undertaken as a continuation of Phase I of the 2^{nd} Street Project. The intent of widening 2^{nd} Street was to present a grand entrance into downtown Louisville coming from the state of Indiana off the 2^{nd} Street Bridge. This widening was not only undertaken to improve the entrance into the City but also to improve the traffic flow within the downtown street network.

It was Mr. Polepalli's idea to extend the 2nd Street to Broadway Street during the Phase II of the project. Initially City of Louisville had different plans for the proposed termini for two-way 2nd Street segment. When the idea was presented to the City to extend the 2nd Street to Broadway Street, City liked the idea and was convinced to extend the project to this location which in turn resulted in scope change and increased fee on the project.

Mr. Polepalli in his role as a Project Manager for his prior employer was responsible for the overall project delivery (design, schedules, budgets etc) of the project and also for the development of bid proposal documents to solicit bids from the construction companies.

Following were some of the key elements of the project:

- •Aesthetic roadway geometry that blends in with the existing topography
- •Storm Sewer Drainage
- •Extensive Utility Coordination including Vacuum Excavations
- •Traffic Capacity Analysis
- •Traffic Signal Design
- Landscaping
- Streetscaping
- •Bid Proposal documents

Commonwealth of Kentucky

Agency:

Oldham County Economic Development

Dates:

1999 - 2001

Rural and/or Urban:

Rural and Urban

Length:

3.2 Miles

Estimated Construction Cost:

\$5 million

Type of Improvement:

Design access road and improve the existing local road approach to this business park access road.

Project Management:

Project Manager -Vinay K. Polepalli, PE, PMP

OLDHAM COUNTY BUSINESS PARKWAY - Phase II

Oldham County, Kentucky

(Mr. Polepalli has worked on the following project as a project manager while he was employed by HMB Consulting Engineers in Kentucky & Indiana)

The purpose of the project was to design a business parkway through a pre-identified corridor. The intent of the project was to provide access to a vast area of land adjacent to I-71 and spur economic development in the county.

Horizontal alignments and vertical grades were developed to design the proposed business parkway and provide access to the adjacent land. Potential entrances to several tracts of land were identified based on the proposed design and existing topography of the surrounding land.

Several intersections with existing roads such as KY 393, KY 53, Parker Drive, Button Lane were designed to provide safe access to proposed Oldham County Business Parkway. Sight distance, left turn and right turn lanes, traffic signs, striping, utility pole locations were closely studied and intersections were designed to provide safe access to the proposed intersection.

A very high importance was given to the client coordination due to the fact that the client was dealing with potential businesses to attract them to the proposed industrial park - for which this road was designed. The design elements were tweaked, if necessary, to accommodate the potential business establishments in the business park.

Drainage analyses were performed to drain the water as well as design drainage structures that meet the proposed design criteria. Ponds that were impacted as a result of this alignment were graded to blend in with the proposed line and grade.

Coordination with District 5 was performed to obtain encroachment permit. Curb and gutter section was designed for the approach road to this business parkway. Utility coordination was performed to identify the existing utilities and communications were established with the utility agencies if a utility relocation was necessary. Erosion control plans were developed to minimize the potential silt build up in the natural channels due to the proposed construction. Proposed drainage structures were protected during construction from any silt build up by taking appropriate erosion control measures.

The project was constructed in 2002 and various local agencies, residents and business community were pleased with the outcome of the project.

Why Global is Your Partner of Choice

- Our Clients' Repeat Business Says a Lot!
 - Clients have given positive feedback on our performance, dependability, professionalism, quality and responsiveness
- Please Contact our Clients for References:
 - Cheryl Jones, Jacobs Engineering, Louisville, KY
 - > Tyler Yorgason, Jacobs Engineering, Jeffersonville, IN
 - James Williams, Michael Baker Jr., Louisville, KY
 - Steve Emly, MSD Louisville, KY
 - Joey Ashby, MSD Louisville, KY



Why Choose Global?

- Global Solutions ability, willingness and desire to address our clients' needs
- Senior-level engineering experience on Global's staff will ensure thorough understanding of clients' needs and requirements, operational procedures and expectations
- Commitment from upper management to provide quality services and build a long-term relationship
- Available capacity to work on the tasks assigned to Global
- Successful working relationships with several large firms

Questions & Answers

