

Project: 08-25-3311 HCA LSMC CAMPUS EXPANSION

2100 SE BLUE PARKWAY LEE'S SUMMIT, Missouri 64063

Printed On: May 23, 2025 01:51 PM CDT

# RFI #014: Struct. - Bridge Shallow Foundations Memo

Status Closed on 05/23/25

To Luke Arbanas (Nabholz Construction Corporation) From Luke Arbanas (Nabholz Construction Corporation)

Date Initiated May 12, 2025 Due Date May 21, 2025

Location Project Stage Pre-Construction

Cost Impact TBD Schedule Impact No

**Spec Section** 033100 - STRUCTURAL CONCRETE

Drawing Number S011 Reference

**Linked Drawings** 

Copies To Lelan Olsen (Nabholz Construction Corporation)

**Priority** Low

Constraint

#### **Activity**

#### Question

Question from Luke Arbanas Nabholz Construction Corporation on Monday, May 12, 2025 at 03:29 PM CDT

This RFI is being sent to confirm prior communication between design team and Nabholz. Please reference attached in regards to below.

Bridge Shallow Foundations Memorandum (Note D.1 on S011 Dated May 14, 2024), could the Design Team direct Nabholz to where it might be in the Construction Documents?

Attachments RFI 014 BKUP.pdf

#### Official Response

Response from Luke Arbanas Nabholz Construction Corporation on Friday, May 23, 2025 at 01:51 PM CDT

Memorandum has been added to the specifications and will be issued with the upcoming ASI-001. - Matt McDaniel

Attachments

RFI 14 hca\_lsmc\_campus\_expansion-rfi#014-struct.\_-\_bridge\_shallow\_foundations\_memo-2025.05.12 DGL Response.pdf

#### **All Replies**

Response from Luke Arbanas Nabholz Construction Corporation on Friday, May 23, 2025 at 01:51 PM CDT

Memorandum has been added to the specifications and will be issued with the upcoming ASI-001. - Matt McDaniel

**Attachments** 

RFI 14 hca\_lsmc\_campus\_expansion-rfi#014-struct.\_-\_bridge\_shallow\_foundations\_memo-2025.05.12 DGL Response.pdf



Project: 08-25-3311 HCA LSMC CAMPUS EXPANSION

2100 SE BLUE PARKWAY LEE'S SUMMIT, Missouri 64063

Printed On: May 12, 2025 03:29 PM CDT

# RFI #014: Struct. - Bridge Shallow Foundations Memo

Status Open

To Luke Arbanas (Nabholz Construction Corporation) From Luke Arbanas (Nabholz Construction Corporation)

Date Initiated May 12, 2025 Due Date May 21, 2025

Location Project Stage Pre-Construction

Cost Impact TBD Schedule Impact No

**Spec Section** 033100 - STRUCTURAL CONCRETE

Drawing Number S011 Reference

**Linked Drawings** 

Copies To Lelan Olsen (Nabholz Construction Corporation)

**Priority** Low

Constraint

#### **Activity**

#### Question

Question from Luke Arbanas Nabholz Construction Corporation on Monday, May 12, 2025 at 03:29 PM CDT

This RFI is being sent to confirm prior communication between design team and Nabholz. Please reference attached in regards to below.

Bridge Shallow Foundations Memorandum (Note D.1 on S011 Dated May 14, 2024), could the Design Team direct Nabholz to where it might be in the Construction Documents?

Attachments RFI 014 BKUP.pdf

Awaiting an Official Response

Memorandum has been added to the specifications and will be issued with the upcoming ASI-001. - Matt McDaniel

## **Luke Arbanas**

From: Kevin Cook <kcook@devenneygroup.com>

**Sent:** Monday, March 24, 2025 5:24 PM **To:** Lelan Olsen; Matt McDaniel

Cc: Jason Perry; Nishith Sardhara; Jeremy Branson; Matt Reavis; Chris Wunder; 6406.24.0001

@devenneygroup.tonicdm.com; lan Davies; Carter Young; Ryan Grimes; Rick Fobair;

Luke Arbanas

**Subject:** RE: HCA-LSMC\_Bridge Shallow Foundations Memorandum

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Lelan......Easiest thing to do would be to issue a confirming RFI to add to the scope of the project.

Matt.....Please add this to our spec folder and spec index for future reference as part of the project scope.

#### Thanks!



# KEVIN COOK, Architect SENIOR PROJECT MANAGER

California | Arizona | Texas 602.456.8192 o, 602.541.7287 m kcook@devenneygroup.com www.devenneygroup.com

Transforming healthcare delivery through design

From: Lelan Olsen <lelan.olsen@nabholz.com>

Sent: Monday, March 24, 2025 2:36 PM

**To:** Kevin Cook <kcook@devenneygroup.com>; Matt McDaniel <mmcdaniel@devenneygroup.com> **Cc:** Jason Perry <jperry@sdlal.com>; Nishith Sardhara <nsardhara@sdlal.com>; Jeremy Branson <jeremy.branson@nabholz.com>; Matt Reavis <matt.reavis@nabholz.com>; Chris Wunder <a href="mailto:chris.wunder@nabholz.com">chris.wunder@nabholz.com</a>; 6406-34 0001@devenneygroup topicdm some lan Davies <ian davies

<chris.wunder@nabholz.com>; 6406.24.0001@devenneygroup.tonicdm.com; lan Davies <ian.davies@nabholz.com>;

Carter Young <arter.young@nabholz.com>; Ryan Grimes <ryan.grimes@nabholz.com>; Rick Fobair

<rick.fobair@nabholz.com>; Luke Arbanas <luke.arbanas@nabholz.com>

Subject: RE: HCA-LSMC Bridge Shallow Foundations Memorandum

## Thank You!

Should we assume that this will be issued with a future Addendum so as to incorporate it into the Construction Documents?

## **LELAN OLSEN**

ASSISTANT PROJECT MANAGER M (913) 490-6082 lelan.olsen@nabholz.com

From: Kevin Cook < kcook@devenneygroup.com>

Sent: Monday, March 24, 2025 4:14 PM

**To:** Lelan Olsen <lelan.olsen@nabholz.com>; Matt McDaniel <mmcdaniel@devenneygroup.com> **Cc:** Jason Perry <jperry@sdlal.com>; Nishith Sardhara <nsardhara@sdlal.com>; Jeremy Branson

<jeremy.branson@nabholz.com>; Matt Reavis <matt.reavis@nabholz.com>; Chris Wunder

<chris.wunder@nabholz.com>; 6406.24.0001@devenneygroup.tonicdm.com; Ian Davies <ian.davies@nabholz.com>;

Carter Young <carter.young@nabholz.com>; Ryan Grimes <ryan.grimes@nabholz.com>; Rick Fobair

<rick.fobair@nabholz.com>; Luke Arbanas <luke.arbanas@nabholz.com>

Subject: RE: HCA-LSMC Bridge Shallow Foundations Memorandum

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Here you go.

Thanks!



KEVIN COOK, Architect SENIOR PROJECT MANAGER

California | Arizona | Texas 602.456.8192 o, 602.541.7287 m kcook@devenneygroup.com www.devenneygroup.com

Transforming healthcare delivery through design

From: Lelan Olsen < <a href="mailto:lelan.olsen@nabholz.com">lelan.olsen@nabholz.com</a>>

Sent: Monday, March 24, 2025 1:33 PM

To: Matt McDaniel <mmcdaniel@devenneygroup.com>

Cc: Kevin Cook < kcook@devenneygroup.com >; Jason Perry < jperry@sdlal.com >; Nishith Sardhara

<nsardhara@sdlal.com>; Jeremy Branson <jeremy.branson@nabholz.com>; Matt Reavis <matt.reavis@nabholz.com>;

Chris Wunder <chris.wunder@nabholz.com>; 6406.24.0001@devenneygroup.tonicdm.com; lan Davies

<<u>ian.davies@nabholz.com</u>>; Carter Young <<u>carter.young@nabholz.com</u>>; Ryan Grimes <<u>ryan.grimes@nabholz.com</u>>;

Rick Fobair <rick.fobair@nabholz.com>; Luke Arbanas <luke.arbanas@nabholz.com>

Subject: HCA-LSMC Bridge Shallow Foundations Memorandum

Matt,

Note D.1 on S011, was brought to my attention this afternoon (see snip below). I apologize if I missed it, but in performing a quick search of the documents, I could not find the noted Bridge Shallow Foundations Memorandum (Dated May 14, 2024) could the Design Team direct me to where it might be in the Construction Documents?

# D. FOUNDATION

 FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PREPARED BY ALPHA-OMEGA GEOTECH (REPORT NUMBER AGG 240229 E DATED APRIL 30, 2024), AND THE BRIDGE SHALLOW FOUNDATIONS MEMORANDUM (DATED MAY 14, 2024). STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD DIFFERENT FROM THOSE ASSUMED FOR DESIGN.

#### Thanks,



## **LELAN OLSEN**

ASSISTANT PROJECT MANAGER M (913) 490-6082 lelan.olsen@nabholz.com

ician.oiscn@nabnoiz.com

OSHA 30 Hour ICRA I



The information contained in this communication is confidential, is intended only for the use of the recipient named above, and may be legally privileged or contain trade secret or proprietary information prohibited from disclosure to third parties without Nabholz' prior written authorization. Competitive, trade secret and proprietary information is also excepted from disclosure under applicable Freedom of Information Act(s) for publicly funded projects.

If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please reply to the sender and delete the original message or any copy of it.

## Alpha-Omega Geotech, Inc.

1701 State Avenue Kansas City, KS 66102

Office: (913) 371-0000 / Fax: (913) 371-6710

Website: www.aogeotech.com



# **BRIDGE SHALLOW FOUNDATIONS MEMORANDUM**

Project: Lee's Summit Medical Center Expansion [A-OG Project 240229 E]

Location: 2100 SE Blue Parkway Lee's Summit, Missouri

Client: HCA PSA c/o Stanley D. Lindsey and Associates, Ltd.

Date: May 14, 2024

Prepared By: Garic Abendroth, P.E. | GAbendroth@AOGeotech.com | Phone: 913-371-0000

The purpose of this memorandum is to summarize our conversation and recommendations for use of shallow spread footings to support the new pedestrian bridge.

It is understood that the bridge design will have columns spaced at 20 to 40 ft. with a maximum load of about 36k, with two piers at each support. The original report gave drilled pier recommendations with the assumption the foundation loads would be much higher. Given the anticipated 36k loads (max) we recommend the use of shallow spread footings be used to support the bridge.

Footings should be placed at least 3 feet below final exterior grade to provide adequate frost protection and place them in a more stable moisture environment. Provided all design and inspection recommendations as given in geotechnical report are closely followed and good construction practices are exercised, it is recommended an allowable bearing value of 2,000 psf may be used for design purposes to proportion the spread footings. These allowable bearing capacity values, which are based on shear strength alone and not on settlement, incorporate a factor of safety of 3.0. The actual bearing capacity of all subgrades supporting the foundation elements must be confirmed by a representative of Alpha-Omega Geotech, Inc. as the excavations for the load-bearing footings are completed and prior to placement of reinforcing steel and concrete. For transient loading conditions, such as unsustained wind and earthquake, a 33 percent increase may be applied to the above-referenced allowable bearing capacity values.

# **Bridge Shallow Foundations Memorandum**

Lee's Summit medical Center A-OG 240229 E

> May 14, 2024 Page 2 of 2

Uniform bearing conditions should be provided beneath the footings to minimize differential settlements. If any soft or otherwise unsuitable material is encountered in the footing excavations, it will have to be removed and replaced with an engineered controlled fill (MoDOT Type 5). Recommendations for the over-excavation and replacement with engineered controlled fill can be made when the footing excavations are inspected during construction, if needed.

A representative of Alpha-Omega Geotech, Inc. should inspect all of the footing excavations to verify that uniform and competent bearing material is present beneath all of the foundation elements prior to the placement of any reinforcing steel and concrete.

For spread footings designed and constructed in accordance with this report, it is anticipated that settlements will be limited to 0.75 inches of differential and 1.0 inches in total.

We truly appreciate the opportunity to work with the project team throughout the design process.

MBER

10902326

Please let us know if there are any questions.

Sincerely, ALPHA-OMEGA GEOTECH, INC.

Garic Abendroth

Garic Abendroth, P.E.

Engineering Director

ALPHA-OMEGA
GEOTECH

## **Luke Arbanas**

From: Kevin Cook <kcook@devenneygroup.com>

**Sent:** Monday, March 24, 2025 5:24 PM **To:** Lelan Olsen; Matt McDaniel

Cc: Jason Perry; Nishith Sardhara; Jeremy Branson; Matt Reavis; Chris Wunder; 6406.24.0001

@devenneygroup.tonicdm.com; lan Davies; Carter Young; Ryan Grimes; Rick Fobair;

Luke Arbanas

**Subject:** RE: HCA-LSMC\_Bridge Shallow Foundations Memorandum

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Lelan......Easiest thing to do would be to issue a confirming RFI to add to the scope of the project.

Matt.....Please add this to our spec folder and spec index for future reference as part of the project scope.

#### Thanks!



# KEVIN COOK, Architect SENIOR PROJECT MANAGER

California | Arizona | Texas 602.456.8192 o, 602.541.7287 m kcook@devenneygroup.com www.devenneygroup.com

Transforming healthcare delivery through design

From: Lelan Olsen <lelan.olsen@nabholz.com>

Sent: Monday, March 24, 2025 2:36 PM

**To:** Kevin Cook <kcook@devenneygroup.com>; Matt McDaniel <mmcdaniel@devenneygroup.com> **Cc:** Jason Perry <jperry@sdlal.com>; Nishith Sardhara <nsardhara@sdlal.com>; Jeremy Branson <jeremy.branson@nabholz.com>; Matt Reavis <matt.reavis@nabholz.com>; Chris Wunder <a href="mailto:chris.wunder@nabholz.com">chris.wunder@nabholz.com</a>; 6406-34 0001@devenneygroup topicdm some lan Davies <ian davies

<chris.wunder@nabholz.com>; 6406.24.0001@devenneygroup.tonicdm.com; lan Davies <ian.davies@nabholz.com>;

Carter Young <arter.young@nabholz.com>; Ryan Grimes <ryan.grimes@nabholz.com>; Rick Fobair

<rick.fobair@nabholz.com>; Luke Arbanas <luke.arbanas@nabholz.com>

Subject: RE: HCA-LSMC Bridge Shallow Foundations Memorandum

## Thank You!

Should we assume that this will be issued with a future Addendum so as to incorporate it into the Construction Documents?

## **LELAN OLSEN**

ASSISTANT PROJECT MANAGER M (913) 490-6082 lelan.olsen@nabholz.com

From: Kevin Cook < kcook@devenneygroup.com>

Sent: Monday, March 24, 2025 4:14 PM

**To:** Lelan Olsen <lelan.olsen@nabholz.com>; Matt McDaniel <mmcdaniel@devenneygroup.com> **Cc:** Jason Perry <jperry@sdlal.com>; Nishith Sardhara <nsardhara@sdlal.com>; Jeremy Branson

<jeremy.branson@nabholz.com>; Matt Reavis <matt.reavis@nabholz.com>; Chris Wunder

<chris.wunder@nabholz.com>; 6406.24.0001@devenneygroup.tonicdm.com; Ian Davies <ian.davies@nabholz.com>;

Carter Young <carter.young@nabholz.com>; Ryan Grimes <ryan.grimes@nabholz.com>; Rick Fobair

<rick.fobair@nabholz.com>; Luke Arbanas <luke.arbanas@nabholz.com>

Subject: RE: HCA-LSMC Bridge Shallow Foundations Memorandum

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Here you go.

Thanks!



KEVIN COOK, Architect SENIOR PROJECT MANAGER

California | Arizona | Texas 602.456.8192 o, 602.541.7287 m kcook@devenneygroup.com www.devenneygroup.com

Transforming healthcare delivery through design

From: Lelan Olsen < <a href="mailto:lelan.olsen@nabholz.com">lelan.olsen@nabholz.com</a>>

Sent: Monday, March 24, 2025 1:33 PM

To: Matt McDaniel <mmcdaniel@devenneygroup.com>

Cc: Kevin Cook < kcook@devenneygroup.com >; Jason Perry < jperry@sdlal.com >; Nishith Sardhara

<nsardhara@sdlal.com>; Jeremy Branson <jeremy.branson@nabholz.com>; Matt Reavis <matt.reavis@nabholz.com>;

Chris Wunder <chris.wunder@nabholz.com>; 6406.24.0001@devenneygroup.tonicdm.com; lan Davies

<<u>ian.davies@nabholz.com</u>>; Carter Young <<u>carter.young@nabholz.com</u>>; Ryan Grimes <<u>ryan.grimes@nabholz.com</u>>;

Rick Fobair <rick.fobair@nabholz.com>; Luke Arbanas <luke.arbanas@nabholz.com>

Subject: HCA-LSMC Bridge Shallow Foundations Memorandum

Matt,

Note D.1 on S011, was brought to my attention this afternoon (see snip below). I apologize if I missed it, but in performing a quick search of the documents, I could not find the noted Bridge Shallow Foundations Memorandum (Dated May 14, 2024) could the Design Team direct me to where it might be in the Construction Documents?

# D. FOUNDATION

 FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PREPARED BY ALPHA-OMEGA GEOTECH (REPORT NUMBER AGG 240229 E DATED APRIL 30, 2024), AND THE BRIDGE SHALLOW FOUNDATIONS MEMORANDUM (DATED MAY 14, 2024). STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SUBSURFACE CONDITIONS ENCOUNTERED IN THE FIELD DIFFERENT FROM THOSE ASSUMED FOR DESIGN.

#### Thanks,



## **LELAN OLSEN**

ASSISTANT PROJECT MANAGER M (913) 490-6082 lelan.olsen@nabholz.com

ician.oiscn@nabnoiz.com

OSHA 30 Hour ICRA I



The information contained in this communication is confidential, is intended only for the use of the recipient named above, and may be legally privileged or contain trade secret or proprietary information prohibited from disclosure to third parties without Nabholz' prior written authorization. Competitive, trade secret and proprietary information is also excepted from disclosure under applicable Freedom of Information Act(s) for publicly funded projects.

If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please reply to the sender and delete the original message or any copy of it.

## Alpha-Omega Geotech, Inc.

1701 State Avenue Kansas City, KS 66102

Office: (913) 371-0000 / Fax: (913) 371-6710

Website: www.aogeotech.com



# **BRIDGE SHALLOW FOUNDATIONS MEMORANDUM**

Project: Lee's Summit Medical Center Expansion [A-OG Project 240229 E]

Location: 2100 SE Blue Parkway Lee's Summit, Missouri

Client: HCA PSA c/o Stanley D. Lindsey and Associates, Ltd.

Date: May 14, 2024

Prepared By: Garic Abendroth, P.E. | GAbendroth@AOGeotech.com | Phone: 913-371-0000

The purpose of this memorandum is to summarize our conversation and recommendations for use of shallow spread footings to support the new pedestrian bridge.

It is understood that the bridge design will have columns spaced at 20 to 40 ft. with a maximum load of about 36k, with two piers at each support. The original report gave drilled pier recommendations with the assumption the foundation loads would be much higher. Given the anticipated 36k loads (max) we recommend the use of shallow spread footings be used to support the bridge.

Footings should be placed at least 3 feet below final exterior grade to provide adequate frost protection and place them in a more stable moisture environment. Provided all design and inspection recommendations as given in geotechnical report are closely followed and good construction practices are exercised, it is recommended an allowable bearing value of 2,000 psf may be used for design purposes to proportion the spread footings. These allowable bearing capacity values, which are based on shear strength alone and not on settlement, incorporate a factor of safety of 3.0. The actual bearing capacity of all subgrades supporting the foundation elements must be confirmed by a representative of Alpha-Omega Geotech, Inc. as the excavations for the load-bearing footings are completed and prior to placement of reinforcing steel and concrete. For transient loading conditions, such as unsustained wind and earthquake, a 33 percent increase may be applied to the above-referenced allowable bearing capacity values.

# **Bridge Shallow Foundations Memorandum**

Lee's Summit medical Center A-OG 240229 E

> May 14, 2024 Page 2 of 2

Uniform bearing conditions should be provided beneath the footings to minimize differential settlements. If any soft or otherwise unsuitable material is encountered in the footing excavations, it will have to be removed and replaced with an engineered controlled fill (MoDOT Type 5). Recommendations for the over-excavation and replacement with engineered controlled fill can be made when the footing excavations are inspected during construction, if needed.

A representative of Alpha-Omega Geotech, Inc. should inspect all of the footing excavations to verify that uniform and competent bearing material is present beneath all of the foundation elements prior to the placement of any reinforcing steel and concrete.

For spread footings designed and constructed in accordance with this report, it is anticipated that settlements will be limited to 0.75 inches of differential and 1.0 inches in total.

We truly appreciate the opportunity to work with the project team throughout the design process.

MBER

10902326

Please let us know if there are any questions.

Sincerely, ALPHA-OMEGA GEOTECH, INC.

Garic Abendroth

Garic Abendroth, P.E.

Engineering Director

ALPHA-OMEGA
GEOTECH