

vfehmerling@gray-construction.com

From: Mason Xie <Mason@AseiiCorp.com>
Sent: Wednesday, December 15, 2021 6:58 PM
To: 'Kevin Johnson'; 'Jordan Gray'
Cc: 'Vanden Fehmerling'; drpatel@primarycaremedic.com; 'Todd Gray'; 'Bryan Plaskett'
Subject: RE: CYM Lake City Submittal 31000-1_Geopier SD and Calcs.pdf
Attachments: Courtyard Marriott (Lake City, FL) 21-007_VR_REV1_eSealed.pdf

Jordan,

The shop dwgs have been reviewed. Since it is eSealed and I cannot insert my shop dwg stamp.

Thanks!

Mason Xie, Ph.D. PE
ASE Engineering Services, Inc.
10244 E Colonial Dr, Suite202
Orlando, Florida 32817
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From: Kevin Johnson <kjohnson@earthtech.com>
Sent: Tuesday, December 14, 2021 9:23 AM
To: Jordan Gray <jgray@gray-construction.com>; 'Mason Xie' <Mason@AseiiCorp.com>
Cc: 'Vanden Fehmerling' <vfehmerling@gray-construction.com>; drpatel@primarycaremedic.com; 'Todd Gray' <tgray@gray-construction.com>; Bryan Plaskett <bplaskett@earthtech.com>
Subject: RE: CYM Lake City Submittal 31000-1_Geopier SD and Calcs.pdf

Jordan/Mason,

Attached are the revised shop drawings along with the soils report which recommends shallow foundation up to 2,500 psf without ground improvement. Please let us know if any of the hatched footings are expected to have more than 2,500 psf average bearing pressure (localized pressures due to transient loads may be higher).

Thank you

Kevin R. Johnson, Ph.D., P.E.
Senior Engineer
Earth Tech, LLC

tel: 813-909-8000
mob: 813-528-1124

• www.EarthTech.com •

From: Jordan Gray <jgray@gray-construction.com>
Sent: Monday, December 13, 2021 4:45 PM
To: Kevin Johnson <kjohnson@earthtech.com>; 'Mason Xie' <Mason@AseiiCorp.com>

Cc: 'Vanden Fehmerling' <vfehmerling@gray-construction.com>; drpatel@primarycaremedic.com; 'Todd Gray' <tgray@gray-construction.com>; Bryan Plaskett <bplaskett@earthtech.com>
Subject: RE: CYM Lake City Submittal 31000-1_Geopier SD and Calcs.pdf

Great! Thanks Kevin – I will keep an eye out for this.

Jordan Gray



Gray Construction Services, Inc.
222 W. Wade Street | Trenton, FL 32693
Cell: **407-864-4294**
www.gray-construction.com

From: Kevin Johnson <kjohnson@earthtech.com>
Sent: Monday, December 13, 2021 4:42 PM
To: Jordan Gray <jgray@gray-construction.com>; 'Mason Xie' <Mason@AseiiCorp.com>
Cc: 'Vanden Fehmerling' <vfehmerling@gray-construction.com>; drpatel@primarycaremedic.com; 'Todd Gray' <tgray@gray-construction.com>; Bryan Plaskett <bplaskett@earthtech.com>
Subject: RE: CYM Lake City Submittal 31000-1_Geopier SD and Calcs.pdf

Jordan,

I spoke with Mason on the phone and per our conversation, Earth Tech will resubmit the 2021 drawing with clarification for the untreated footings and reference to Universal's 2018 report (attached) which specifies a bearing capacity of 2,500 psf for untreated foundations.
I will get this sent out tomorrow morning.

Thanks

Kevin R. Johnson, Ph.D., P.E.
Senior Engineer
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From: Kevin Johnson
Sent: Monday, December 13, 2021 4:00 PM
To: Jordan Gray <jgray@gray-construction.com>; 'Mason Xie' <Mason@AseiiCorp.com>

COURTYARD MARRIOTT

1 INSTALLATION & QUALITY CONTROL

VIBROREPLACEMENT (VR) STONE COLUMNS

1. SHOP DRAWINGS REFERENCE SHEET S2.01, DATED NOVEMBER 20, 2018 AS PREPARED BY ASE ENGINEERING SERVICES, INC.
2. VR DESIGN, TESTING AND CERTIFICATION SHALL BE UNDER THE DIRECTION OF AN EARTH TECH GEOTECHNICAL ENGINEER SPECIALIZING IN GROUND IMPROVEMENT.
3. VR LAYOUT SHALL BE CONFIRMED FOR EVERY COLUMN PRIOR TO INSTALLATION USING EITHER A GPS SURVEY INSTRUMENT OR ACCURATE MEASUREMENTS FROM KNOWN SITE BENCHMARKS. VR PLAN LOCATION MAY NOT DEVIATE BY MORE THAN ±12 INCHES FROM THE DESIGN LOCATION WITHOUT APPROVAL.
4. AS-BUILT VR PLAN LOCATION, IF OUTSIDE OF THE TOLERANCE SPECIFIED ABOVE, SHALL BE REVIEWED BY THE GROUND IMPROVEMENT DESIGN ENGINEER (EARTH TECH) TO DETERMINE ACCEPTABILITY.
5. ALL VR PROBES SHALL BE INSTALLED TO THE LISTED DEPTHS BELOW BOTTOM OF FOOTING.
6. POSITIVE AMPERAGE INCREASE OF AT LEAST 50 AMPS OVER FREE-HANGING SHALL BE ENSURED THROUGH THE FULL INSTALLATION DEPTH OF EVERY STONE COLUMN, UNLESS OTHERWISE APPROVED BY THE GROUND IMPROVEMENT DESIGN ENGINEER.
7. SHOULD PRACTICAL REFUSAL OF THE VIBROFLOT OCCUR BEFORE REACHING DESIGN VR DEPTH, THE GROUND IMPROVEMENT DESIGN ENGINEER SHALL BE INFORMED IMMEDIATELY.
 - 7.1. SHOULD THIS OCCUR, IT SHALL BE CLEARLY DOCUMENTED.
 - 7.2. GROUND IMPROVEMENT DESIGN ENGINEER SHALL ADVISE AS TO WHAT CORRECTIVE MEASURES, IF ANY, SHALL BE TAKEN.
 - 7.3. PRACTICAL REFUSAL IS DEFINED AS THE INABILITY TO FURTHER ADVANCE THE VIBROFLOT USING TYPICAL MEANS, SUCH THAT TOOL DAMAGE MAY OCCUR OR SAFETY MAY BE COMPROMISED. THIS IS INDICATED BY THE FOLLOWING:
 - 7.3.1. DEVELOPMENT OF MAXIMUM SAFE TOOL AMPERAGE (200 AMPS OR HIGHER) WITH NO FURTHER PENETRATION OF THE TOOL
 - 7.3.2. VIBRATOR CHOKERS COMING OFF THE HOOK WITH NO FURTHER PENETRATION OF THE TOOL

8. UNLESS OTHERWISE APPROVED BY THE GROUND IMPROVEMENT DESIGN ENGINEER BASED ON OBSERVED SOIL RESPONSE TO VR INSTALLATION, STONE COLUMNS SHALL HAVE A NOMINAL INSTALLED DIAMETER OF 3-FT (+/-).
9. SOIL CONDITIONS, VR DESIGN ASSUMPTIONS AND/OR AS-BUILT VR PERFORMANCE MAY BE VERIFIED USING STANDARD PENETRATION TEST (SPT) BORINGS OR CONE PENETROMETER TEST (CPT) SOUNDINGS, AS DIRECTED BY THE GROUND IMPROVEMENT DESIGN ENGINEER.

POST-VR GROUND PREPARATION

1. FOLLOW ALL SITE PREPARATION RECOMMENDATIONS AS OUTLINED IN THE REPORT OF GEOTECHNICAL CONSULTING SERVICES PREPARED BY UNIVERSAL ENGINEERING SERVICES DATED APRIL 25 2019.
2. VR-SUPPORTED FOUNDATIONS PREPARED IN ACCORDANCE WITH THE ABOVE MAY BE DESIGNED FOR AN ALLOWABLE SOIL BEARING CAPACITY OF 5,000 PSF, UNLESS NOTED OTHERWISE.

GENERAL NOTES

1. THE SURVEY POINTS SHOWN ON THE SHOP DRAWING SHALL BE PROVIDED (BY OTHERS) FOR USE BY EARTH TECH IN LAYOUT OF THE VR COLUMN LOCATIONS.
2. THESE DRAWINGS SHALL NOT BE USED FOR FOUNDATION LAYOUT.
3. PER THE REPORT OF GEOTECHNICAL CONSULTING SERVICES PREPARED BY UNIVERSAL ENGINEERING SCIENCES, DATED JUNE 12, 2018, FOUNDATIONS DESIGNED FOR LESS THAN 2,500 PSF AVERAGE BEARING PRESSURE DO NOT REQUIRE VR TREATMENT AND ARE NOT INCLUDED IN THIS SCOPE. EARTH TECH SHALL BE NOTIFIED IF ANY OF THE FOUNDATIONS INDICATED AS UNTREATED ON THESE SHOP DRAWINGS ARE DESIGNED FOR MORE THAN 2,500 PSF AVERAGE BEARING PRESSURE.



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|-------|--------------------|--|
| NOTES | COURTYARD MARRIOTT | |
| | LAKE CITY, FL | |

| | |
|-----------------|-------------|
| PROJECT NUMBER: | ISSUE DATE: |
| 21-112 | 11/11/21 |

| REV. NO. | REVISION DESCRIPTION | DATE |
|----------|----------------------|----------|
| 1 | PER REVIEW COMMENTS | 12/14/21 |
| | | |
| | | |
| | | |
| | | |
| | | |

ENGINEER OF RECORD:



Digitally signed by Kevin R. Johnson
Date: 2021.12.14 09:10:55 -0500

EARTH TECH, LLC CERTIFICATE OF AUTHORIZATION
FLORIDA NO. 30823

| | |
|-----------|-----|
| DRAWN BY: | AJD |
|-----------|-----|

| | |
|---------------|--------|
| SHEET NUMBER: | ET-1.0 |
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Y:\Heavy Civil\2 - Jobs\Active\Courtyard Marriott (Lake City, FL) 21-112\Technical\Shop Drawings\Courtyard Marriott (Lake City, FL) 21-007_VR_REV1.dwg12/14/2021

Y:\Heavy Civil\2 - Jobs\Active\Courtyard Marriott (Lake City, FL) 21-112\Technical\Shop Drawings\Courtyard Marriott (Lake City, FL) 21-007_VR_REV1.dwg12/14/2021

2 LEGEND

○ 33 Ø3.0-FT (±) VIBRO REPLACEMENT (VR) LOCATION AND NUMBER

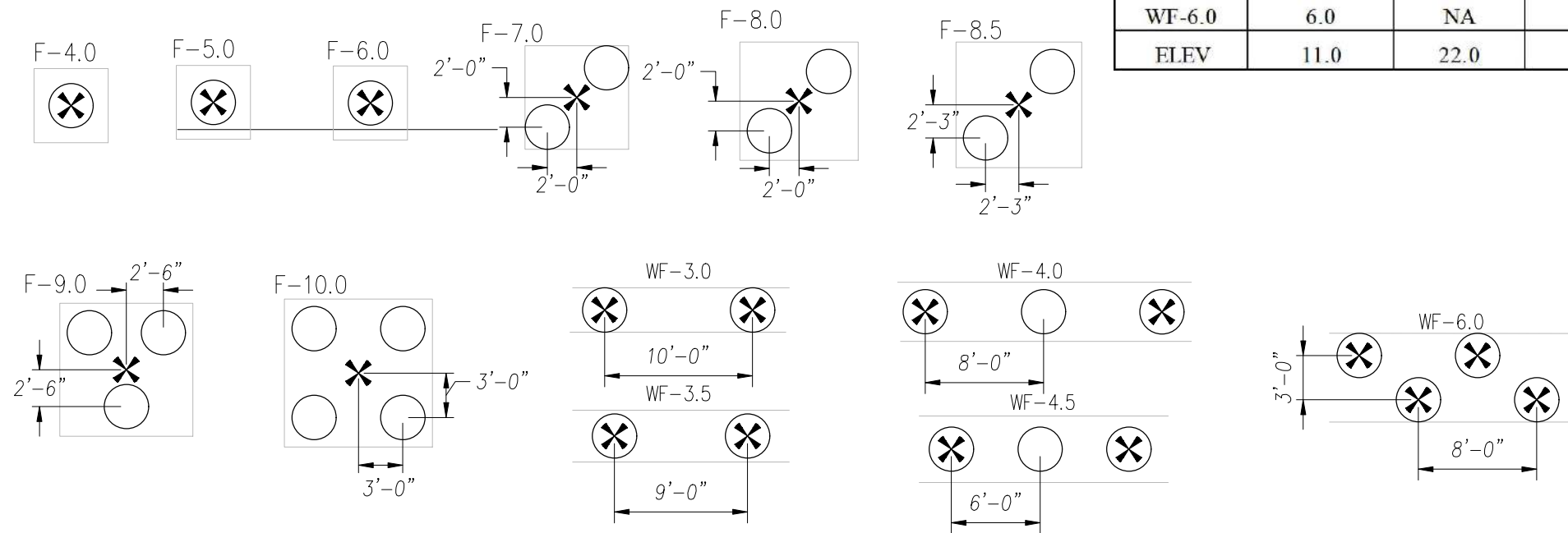
✕ REQUIRED SURVEY STAKE (BY OTHERS)

1

FOUNDATIONS NOT TREATED
(ALLOWABLE 2,500 PSF BEARING PRESSURE, PER
UES REPORT DATED 6/12/18)

3 TYPICAL VIBRO REPLACEMENT LAYOUT

Scale: 3/32" = 1'-0"



FOUNDATION SCHEDULE

| Footing Mark | Footing Width (ft) | Footing Length (ft) | VR Columns Spacing (ft) | Number of VR Column Rows | Number of VR Columns per Footing | VR Design Length (ft) Below BOF |
|--------------|--------------------|---------------------|-------------------------|--------------------------|----------------------------------|---------------------------------|
| F-4.0 | 4.0 | 4.0 | NA | NA | 1 | 10 |
| F-5.0 | 5.0 | 5.0 | NA | NA | 1 | 10 |
| F-6.0 | 6.0 | 6.0 | NA | NA | 1 | 10 |
| F-7.0 | 7.0 | 7.0 | NA | NA | 2 | 10 |
| F-8.0 | 8.0 | 8.0 | NA | NA | 2 | 15 |
| F-8.5 | 8.5 | 8.5 | NA | NA | 2 | 15 |
| F-9.0 | 9.0 | 9.0 | NA | NA | 3 | 15 |
| F-10.0 | 10.0 | 10.0 | NA | NA | 4 | 15 |
| F-10x20 | 10.0 | 20.0 | NA | NA | 8 | 15 |
| WF-3.0 | 3.0 | NA | 10 | 1 | NA | 15 |
| WF-3.5 | 3.5 | NA | 9 | 1 | NA | 15 |
| WF-4.0 | 4.0 | NA | 8 | 1 | NA | 16 |
| WF-4.5 | 4.5 | NA | 6 | 1 | NA | 18 |
| WF-6.0 | 6.0 | NA | 8 | 2 | NA | 18 |
| ELEV | 11.0 | 22.0 | NA | NA | 8 | 15 |

DETAILS

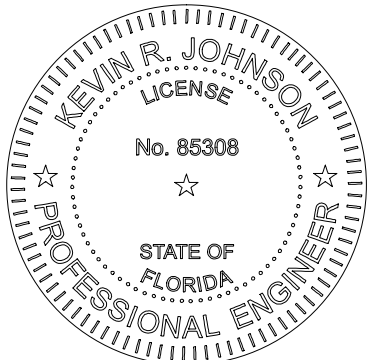
COURTYARD MARRIOTT

LAKE CITY, FL

PROJECT NUMBER: 21-112
ISSUE DATE: 11/11/21

| REV. NO. | REVISION DESCRIPTION | DATE |
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ENGINEER OF RECORD:



EARTH TECH, LLC CERTIFICATE OF
AUTHORIZATION
FLORIDA NO. 30823

DRAWN BY: AJD

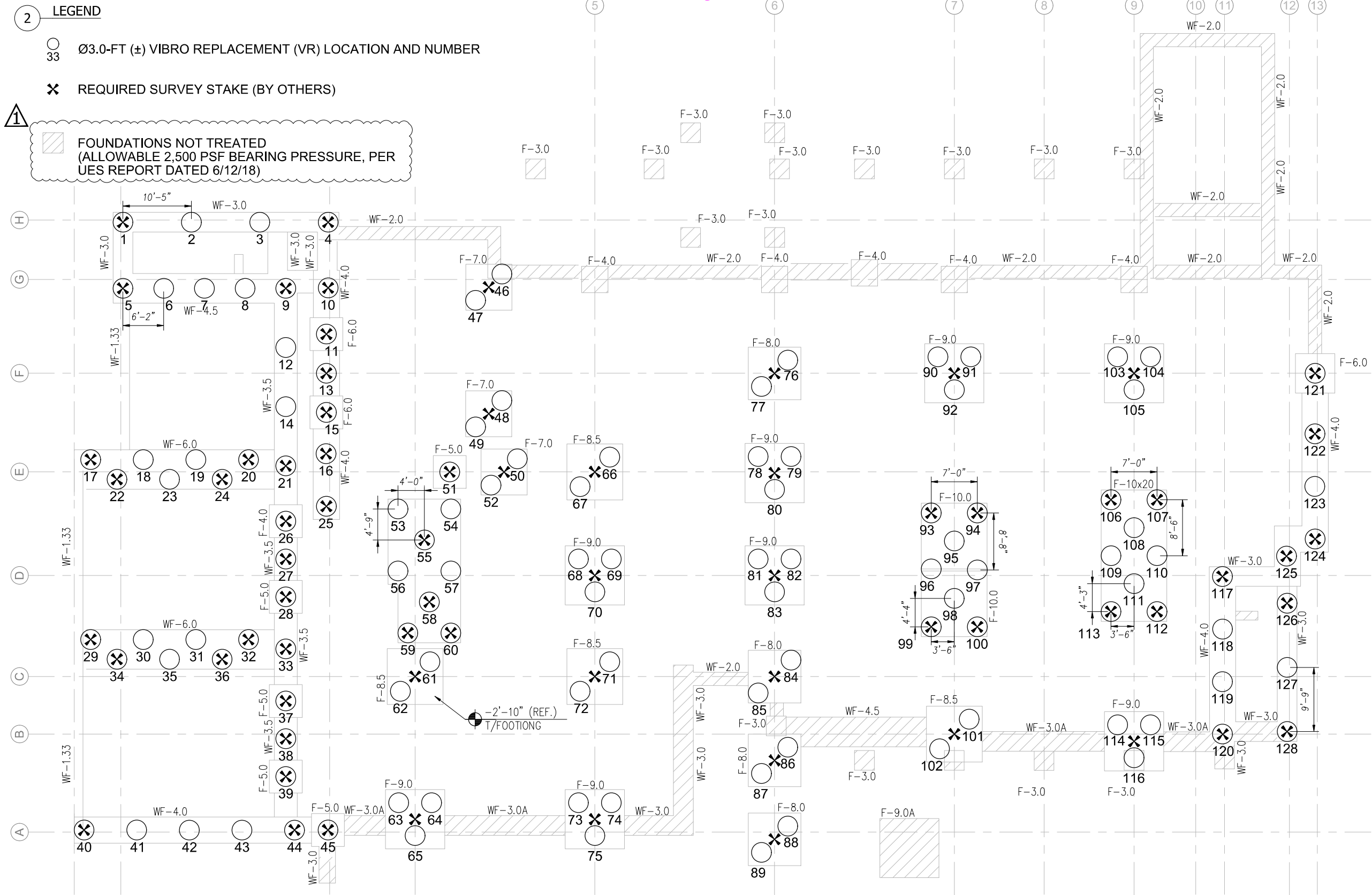
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All dimension should be verified with arch dwgs.



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VIBRO REPLACEMENT
LAYOUT

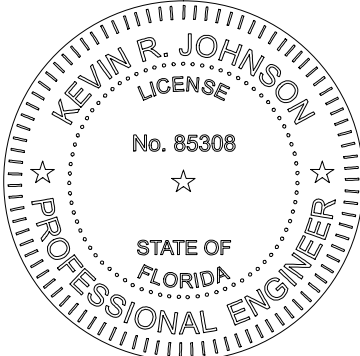
COURTYARD MARRIOTT

LAKE CITY, FL

PROJECT NUMBER: 21-112
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