



# DYNATECH ENGINEERING CORP.

[WWW.DYNATECHENGINEERING.COM](http://WWW.DYNATECHENGINEERING.COM)

Miami, October 8, 2024

102SW 1<sup>ST</sup>, LLC.  
5100 Arthur Street  
Hollywood, FL 33021

Re: Proposed 5-Story Building @  
2306 Van Buren Street  
Hollywood, FL 33020

Dear Mr. Glenn

Pursuant to your request, DYNATECH ENGINEERING CORP. (D.E.C.) completed a Subsoil Investigation on October 8, 2024 at the above referenced project. The purpose of our investigation was to help determine subsoil conditions relative to foundation design of the proposed structures.

It is our opinion that the subsurface conditions in the explored areas are favorable for supporting the proposed structure on shallow foundations using soil modification techniques (ie: vibro replacement, rigid inclusion, compaction grouting, etc...) provided in our recommendations. Enclosed find copies of our field testing, findings and recommendations.

This report was provided to you as a preliminary aid in the evaluation of the site and to assist in the designing of the project and MUST be read in its entirety. D.E.C. was not provided any structural design parameters during the development of this report. Therefore, it is requested that upon preliminary or final structural designs and specifications, D.E.C. be provided the opportunity to review to the final design. Review of the final design drawings and specifications will be noted in writing by the geotechnical engineer to reflect the applicability of this report. With various available proprietary ground modification techniques, value engineering shall be considered once final designs are provided.

It has been a pleasure serving you at this phase of your project and look forward to work with you in the near future.

Sincerely yours,



Wissam Naamani, P.E. 10-10-2024  
DYNATECH ENGINEERING CORP.  
Florida Reg. No. 39584  
Special Inspector No. 757  
Certificate of Authorization No.: CA 5491



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BY WISSAM SAAD NAAMANI, P.E. ON  
THE DATE ADJACENT TO THE SEAL.

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# **REPORT OF SUBSOIL INVESTIGATION**

**FOR  
Proposed 5-Story Building @  
2306 Van Buren Street  
Hollywood, FL 33020**

**Prepared For:**

**102SW 1<sup>ST</sup>, LLC.  
5100 Arthur Street  
Hollywood, FL 33021**

**Prepared By:**

**DYNATECH ENGINEERING CORP.  
750 West 84<sup>th</sup> Street  
Hialeah, FL 33014  
(305) 828-7499**

**Miami, October 8, 2024**



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## **INTRODUCTION**

Pursuant to the written request of Mr. Glenn of 102 SW 1<sup>ST</sup>, LLC.

DYNATECH ENGINEERING CORP. (DEC) completed a foundation investigation for the proposed development on October 8, 2024. The site of the planned construction is located at 2306 Van Buren Street, Hollywood, FL.

The foundation investigation had a three fold purpose:

(1) Explore the subsurface of the site to determine the nature, sequencing and condition of the in-place materials. (2) Evaluate the Geotechnical engineering impact of the in-place materials on the planned construction, and (3) Provide recommendations for foundation design and related construction. Enclosed find copies of our field boring logs and site plan.

The scope of our investigation consisted of the following:

- Conduct a total of (3) Standard Penetration Test Borings (SPT) at the locations requested by the client, to a depth of 50' below existing land surface respectively.
- Preparation of this report to document our findings and recommendations.

Information regarding the proposed structure was provided by Mr. Glenn.

Structural drawings or land surveys were not provided to us as of the completion date of this report.

We estimate that the actual boring locations were within 10 feet of the locations shown on the attached plans. If boring locations need to be more accurate; a registered land surveyor must be retained to mark exact locations. Land elevation was not provided to us as of the completion date of this report. Existing and proposed final grades must be verified by a Florida registered land surveyor prior to bidding. The boring data reflects conditions at the specific test location only, and at the time the borings were drilled. Once an elevation survey is performed, depths shall be adjusted accordingly.

Our drillers examined the soil recovered from the SPT sampler and maintained a log for each boring. The soil samples were taken to our laboratory where they were visually classified by our engineer. The soil classifications and other pertinent data from our explorations are reported on the boring logs in the appendix.



### PROJECT CONSIDERATION

It is our understanding that the planned construction will consist of a 5-story building and parking lot. Construction plans or drawings are not yet available for our review. However; based on our experience with similar projects, the following are estimates of anticipated loads. These loads and our recommendations will need to be adjusted upon final design of the project if loading conditions are significantly different from the following:

- Shallow Foundation : 2500 PSF for 1-2 Story (ancillary structures)  
6000 PSF for (5-story building with soil  
modification techniques)
- Soil Compaction : 95% of Modified Proctor
- Below Grade Basement Excavation : None
- Slabs : Slabs on grade
- Above Grade Parking Garage : Yes

It is further our understanding that interior roadways will be provided and must meet Broward County Transportation Department for grading and drainage. Interior roadways will consist of parking and driving areas as well as delivery and truck wells.

If the above project considerations change; we must be notified so that we can evaluate the potential impact the changes may have on our design and adjust our recommendations accordingly.

The south Florida region is not considered seismically active; therefore liquefaction, ground shaking and lateral spreading are generally not a factor in foundation design.



### SURFACE CONDITION OF SITE

Topography throughout the parcel varies. Ground surface elevation was NOT reported to us at this time. Access to the site was only provided to the areas of the soil borings. All contractors MUST familiarize themselves with the subject and neighboring site conditions prior to bidding. Once elevation survey is performed depths will need to be adjusted accordingly.

### SUBSURFACE CONDITIONS OF SITE

A total of (3) Standard Penetration Soil Boring tests were performed at the locations indicated by the attached sketch, to explore the subsurface conditions. The borings were arranged as shown on the attached site plan. The borings were performed according to ASTM D-1586 down to an average depth of 50' B.E.L.S. respectively. Drilling was performed using rotary hollow stem augers techniques. Split spoon sampling was typically performed continually for the top 8 to 10 feet and at 5 feet internals thereafter. The first 2 to 4 feet of each boring was performed by hand to check for underground utilities.

Based on our field boring logs; the following graph was developed as a general condition for the subject site from existing ground level: (Subsoil conditions are non-homogenous, refer to field boring logs for exact soil conditions at various locations). Average depths are approximate and will vary on site.

#### Average Depth

<u>From</u>	<u>To</u>	<u>Soil Description</u>
0'-0"	0'-6"	Topsoil and gravel
0'-6"	1'-6"	Gray silty sand
1'-6"	6'-0"	White medium sand
6'-0"	8'-6"	Dark brown fine sand w/light stain
8'-6"	28'-0"	Tan medium sand w/limestone traces
28'-0"	34'-0"	Tan medium sand w/rock fragments
34'-0"	42'-0"	Tan sandy limestone
42'-0"	45'-0"	Tan medium sand
45'-0"	48'-0"	Tan sandy limestone
48'-0"	50'-0"	Tan medium sand

## **DISCUSSIONS AND RECOMMENDATIONS**

### **SITE GEOTECHNICAL SUITABILITY**

Results of the foundation investigation confirm that the site is generally suitable from a Geotechnical engineering perspective for shallow foundation system of the planned construction. Therefore, the proposed structures may be supported on shallow foundations, pursuant to our foundation recommendations. Detailed recommendations for site preparation, foundation design and related construction are presented in the following sections of this report.

### **CLEARING, GRUBBING, AND EXCAVATIONS**

Strip the entire building construction areas plus 5 feet outside perimeter of all Grass, topsoil, roots, vegetation, tree stumps, former construction debris, asphalt, underground structures, trees and water retention areas wherever encountered down to clean granular material. An average depth of 1' below land surface. Any former underground structures, utilities, root systems former septic tanks and drainage trenches, etc... must be removed in its entirety from beneath the proposed construction area. All roots greater than one inch in diameter, or a high concentration of smaller diameter roots, must be removed prior to back filling. Clean fill can be stored for reuse pursuant to our approval. The actual depth of stripping MUST be determined in the field during the clearing and excavations.

All excavations must be backfilled and compacted as indicated in our foundation recommendation section prior to construction. Site contractors must familiarize themselves with site conditions prior to bidding. Site elevations and final grades were not provided to us and must be verified prior to bidding.

An arborist must be consulted prior to any land clearing to verify compliance with local codes.



## FOUNDATION RECOMMENDATIONS

Based on our soil boring logs; it is evident that the site is mantled by loose to medium sand and rock formation down to approximately 50' below existing land surface. This material however is considered clean granular fill and is good foundation material once properly compacted. Therefore, soil modification techniques are necessary to provide a suitable foundation without detrimental settlement to the proposed structure.

Based on the results of the soil boring tests and our understanding of the proposed construction (5-story structure), it is our opinion that ground modification improvement techniques such as Vibro Compaction (VC); Vibro Replacement (VR) / stone columns, rigid inclusion or compaction grouting, etc... should be implemented to provide safe long term shallow foundation with limited settlements of the underlying soft sand formation.

The intent of the soil modification process (ie: VR / Stone Columns, Rigid Inclusion, ETC....) is to densify the granular soils at the specific locations and depths to increase the bearing capacity, reduce settlement and/or mitigate liquefaction potential.

The vibrations produced during the Soil Modification Process may have an impact on nearby structures. It is therefore essential that vibrations be monitoring using seismograph equipment. County ordinance specifies that allowable peak particle velocity (PPV) is 0.50 inches per second. In the event excess vibrations is detected, the work shall be immediately halted at that location while the field engineer and contractor evaluations the data and propose alternative driving methods.

We recommend that a pre-construction condition survey of all adjoining structures be performed prior to and after the soil modification operations to document conditions.

### Soil Modification Process (VR). Etc...:

- Strip the entire building construction areas plus 5 feet outside perimeter of all topsoil, grass, roots, pavements, tree stumps, and construction debris down to clean granular material whenever encountered (**an average of 1'-0" below existing ground elevation**). Any underground structures, utilities, root systems and drainage trenches, etc... must be properly removed in its entirety from beneath the proposed construction area.



- The chosen soil modification process (ie: VR / Stone Columns, Rigid Inclusion or Compaction Grouting) should then be performed under all foundations and crane pads to a minimum depth of twice the isolated footing size or 4 times wall footings size but no less than 20' below existing land surface or practical refusal. It is left up to the specialty contractor to determine if predrilling is needed for their operations. Any deleterious material encountered during the V.R. work must be evaluated by our geotechnical engineer and removed from building area.
- The specialty soil modification contractor shall have a minimum of 5 years of documented experience in the chosen soil modification technique.
- The specialty soil modification contractor shall submit a shop drawing for our review, indicating the type of material to be used, spacing, location and depth of the improvement zone to achieve a minimum net permissible soil bearing pressure of 6000 psf.

Upon completion of the soil modification process and satisfactory verification test borings; the building pad surface shall be prepared as follows:

- A- Compact all construction areas with a hand held compactor to a minimum of 95% of ASTM D-1557 but not less than 10 passes in each direction. Localized areas of loose materials, if present, will become evident during site clearing, grubbing, and proof rolling, and must be removed prior to fill operations.
- B- Backfill building areas to required elevation using clean granular material placed in lifts not to exceed 12" in thickness and compact as indicated in items A.
- C- Care should be taken not to use vibration in case of existing structures in the vicinity of the construction area. If vibration cannot be used for compaction, static compaction may be applied. However, in this case, the compacted layer should not exceed 6 inches in thickness.
- D- All construction fill material for building pad, pipe bedding and parking areas above the water table shall consist of be clean granular homogenous soil, free of organics or other deleterious material, and shall contain no more than 12 percent fines passing a U.S. standard # 200 sieve and have a Unified Soil Classification System (USCS) designation of GP, GW, GP-GM, GW-GM, SP, or SW. No particle size greater than 3 inches shall be in the top 12 inches of the building pad. Fill material below the water table shall consist of washed free draining gravel to about 12" above the water table. (ie; FDOT #57 stone or equivalent) unless dewatering is employed. When dewatering is employed, fill material shall consist of clean, granular homogenous soil, free of organics or other deleterious material, and shall contain no more than 5% fines passing a US standard #200 sieve.



- E- Excavate footing areas only to proper depth & recompact as indicated above. Footings must be cast as soon as possible after excavation to minimize potential damage to bearing soils from exposure to the element, construction activities and soil creep. Additional fill needed to bring footing to design elevation **MUST** consist of compacted gravel (ie # 57 stones).
- F- Verify all compaction efforts by taking an adequate number of field density tests in each layer of compacted material and in each footing.
- G- Representative samples of the on site and proposed fill material should be collected and tested to determine the classification and compaction characteristics. Backfill material below the water table shall consist of clean crushed gravel unless dewatering is employed as indicated in items D.
- H- We recommend a minimum foundation width of 36 inches for continuous footings and 60" for individual footings, even though the soil bearing capacity may not be fully developed in all cases. We further recommend that the bottom of footings be a minimum of 4' below the lowest adjacent finished grade.
- I- All Geotechnical work shall be performed under the supervision of our Geotechnical engineer or his representative to verify compliance with our recommendations and the Florida Building Code.
- J- **In case of existing structures, existing footings overhead lines or proposed drainage lines, shall be made by the structural engineer and site contractor provisions to protect all footings from undermining and exposure. The geotechnical engineer shall be notified of these conditions to evaluate the applicability of his recommendations. Deep storm water injection **MUST** be considered to avoid trenching next to foundations. Support of excavation S.O.E. may be needed to avoid trenching next to foundations otherwise deep pile foundations will be needed.**

The above foundation recommendations being achieved and verified, it is our opinion that the proposed structures be designed for a shallow foundation system with a net static permissible soil bearing pressure not to exceed 6000 P.S.F. based on the soil modification system used.

All other ancillary structures and 1 & 2 story buildings (ie: patio, slabs, planters, pools, etc...) shall be designed for shallow foundation system with a permissible soil bearing pressure not to exceed 2500 psf without soil modification. Design calculations for thickness should utilize a coefficient of subgrade reaction of 250 pci, friction angle  $\Theta$  of 30° & moist unit weight of 115 pcf.

The allowable bearing pressure applies to all dead and permanent, line loads which act on the foundations and may be increased by 25 percent for temporary service and wind load. All wind loads shall be in compliance with the Florida Building Code FBC.



Wind forces which act on the structure may be resisted by earth pressure mobilized on the vertical foundations faces (normal to the direction of applied load) and base shearing forces acting on the foundation bottoms. The paragraph presented here after may be used for the lateral force design.

<u>Component of Resistance</u>	<u>Recommended Value</u>
Earth Pressure (moist soil above water table)	130 PSF per foot depth
Friction Factor (concrete on fine to medium sand)	0.4

Resistance values determined from the above should be considered available rather than allowable. Therefore, the design for sliding should include a factor-of safety, and we recommend that this be 1.5 or somewhat higher.

#### Estimated Settlement Analysis:

Detailed settlement analysis of the building is a function of the loading, building materials and soil conditions. We have compared the field test data obtained in this exploration with our experience with structures similar to those proposed for this project and published empirical relationships between the field data and the compressibility characteristics of the soils and rocks. The estimated magnitude of these post construction settlements for the subject structure is in the range of 1/2 inch differential, 1-inch total settlements and less than 0.1 inch at the property line. The most heavily loaded column footings in the building are expected to sustain total settlements in the range of one inch and a differential settlement of one-half inch. Due to the granular nature of the subsurface bearing materials, the foundation settlements should occur as the loads are applied during construction and for a short period following substantial completion. Additional settlements could occur after structural completion as interior finishes are applied.



Provisions shall be made by the architect, engineer of record and contractor to address vibration / dynamic loading; differential settlements when tying in new to existing structures. Mixing of different foundations shall not be used unless provided with expansion joints to address differential settlements and vibration transfer.

Also note that as a common engineering practice for existing and new construction; outside ground surfaces must be sloped away from the structure as to avoid water accumulation and ponding. Rain gutters shall be installed and all rain water shall be discharged over splash guards a minimum of 5 feet away from building foundations. Verify all water, sewer, plumbing, sprinkler and drainage lines are properly functioning with no leaks in the vicinity of the foundations.

Dynatech Engineering Corp. DEC must be provided the opportunity to inspect the final construction for the above conditions. It is further recommended that prospective buyers be advised of these issues through their sales contract so as not to cause damage to their structures.

Every structure must be designed, constructed and maintained properly. Therefore, annual inspections and maintenance is an integral part of the structure and must be performed by a licensed professional engineer to assure continuity of structural integrity.



## **PROOF ROLLING**

The material which mantle the building area are comparatively moderate to loose and should be densified as part of the site preparation process as described earlier. Densification of the surface soils should be accomplished by proof rolling from the present ground surface using a self propelled vibratory compactor which imparts a dynamic drum force of not less than 40,000 pounds. The proof rolling operations should be performed under engineering surveillance so that the subgrade may indicate the extent of weak and compressible materials in the surface soils. Such conditions, if encountered, will require correction by excavation/replacement filling or by other suitable means.

## **BUILDING PAD FILL**

All construction areas receiving additional building pad fill should be moisture-conditioned and compacted to not less than 95 percent of the ASTM D-1557 maximum dry density. Fill for the building pad should be in compliance with our foundation recommendations.





The fill should be placed at a moisture content within two percent of optimum and uniformly compacted to 95 percent of the ASTM D-1557 maximum dry density. All fill material shall be placed in lifts not to exceed 12 inches in thickness and compacted as stated above. Compaction tests shall be performed every 2,500 ft<sup>2</sup> to verify compaction efforts. Representative samples of the on-site and proposed fill material should be collected and tested to determine the classification and compaction characteristics.

#### RETAINING WALL AND EXCAVATIONS:

In the event the building is provided with below grade walls, the walls of these features should be designed to withstand lateral earth, hydrostatic and surcharge pressures. The pressure intensity to be used in the design will be dependent upon the wall deflection characteristics. Flexible walls (i.e., those able to deflect 0.1 percent or more of their height). Rigid walls (i.e., those that are unable to deflect).

The following soil parameters shall be used for retaining wall designs:

- Soil unit weight moist: 115 pcf. Submerged: 53 pcf.
- Angle of internal friction: 30°
- Earth pressure coefficient Ka: 0.33 Kp: 3.0
- Angle of wall friction: 30° for steel, 20° for concrete or brick walls, 15° uncoated steel.

In addition the footings of such walls shall be proportioned for a permissible soil bearing pressure of 2500 psf without soil modification as provided in our foundation recommendation.

Excavations shall not extend within 1 foot of the angle of repose, next to existing footings or structures, unless shoring and under pinning is provided. All trenching and shoring work shall be in compliance with the Florida Building, OSHA the Trench Safety. All excavation / shoring shall be designed and inspected by a specialty support of excavation Florida licensed professional engineer. Vibration levels shall be monitored to verify compliance with local and state regulations during construction. In areas where hard soil formations are encountered, specialty excavation equipment or predrilling will be required.



### GROUND FLOOR SLABS

The floor slabs of the structures may be safely supported on the compacted granular engineered building pad fill after the site has been excavated and filled as stated earlier. The thickness of the floor slabs and their reinforcing should be selected based upon anticipated loadings. Design computation for thickness should utilize a modulus of subgrade reaction of 150 pci. Friction angle  $\phi$  of 30° and moist unit weight of 115 pcf.

The ground floor slabs may be liberally jointed and reinforced to control cracks caused by expansion/contraction and differential loadings. Additionally, the slabs shall be isolated from the building walls and columns to allow maximum freedom for differential movement.

To minimize adverse impacts of the settlements of the building; delayed ground floor slab placement should be considered to reduce settlement related cracking; we recommend that ground floor slabs construction be delayed until the building has been substantially completed.

### TRUCK WELLS (Optional)

Due to the proximity of the water table to the existing ground level and depending on the final design elevation of the Truck Wells; dewatering of the construction excavation might be needed. Additional investigation and testing may be required when final design is completed to provide adequate foundation and construction recommendations for Truck Wells if needed.

The Truck Wells shall be supported on the modified soils. Any disturbed material shall be compacted as stated in the building pad fill section. Excavated material is acceptable as fill material when approved by our field engineer. We further recommend that the Truck Wells be designed to withstand hydrostatic uplift pressure.





## GROUNDWATER

Groundwater was measured immediately at the completion of each boring and was found at an average depth of approximately 8'-6" below existing ground surface at the time of drilling due to varying ground elevation. This immediate depth to groundwater level should not be relied upon alone for project design considerations. Existing ground surface elevation was not provided to us at the time of drilling. Design engineers must verify existing ground elevations as well as FEMA Flood and County highest and lowest groundwater elevation for their design. Fluctuation in water level is anticipated due to seasonal variations and run off as well as varying ground elevations construction dewatering and pumping activities in the area, king tides, flash flooding, storm surge and global warming. Site contractor must familiarize himself with site conditions in the event groundwater controls and dewatering is needed during construction. Surface flooding may result under hurricane conditions and should be taken into consideration in the design of the project. The contractor shall monitor and make sure that groundwater levels on adjacent properties are not adversely impacted due to the contractors dewatering activities. Specialty groundwater and water proofing contractors shall be consulted for all work below the groundwater level. All dewatering volume & effluent discharge must meet local, State & Federal requirements. Excavations should be kept as high as practically feasible above the groundwater level to minimize the need for construction dewatering operations. Deep storm water injection MUST be considered to avoid trenching next to foundations.

## ROADWAYS AND PARKING AREAS

Pavement recommendations consist of either flexible or rigid pavement design, based on the design traffic volumes, types and use. Based on our experience in the area, the following minimum typical pavement section thickness are acceptable:

Type of pavement	Type of acceptable material	Layer thickness(inches)		Minimum Limerock bearing ratio test
		Light duty	Heavy duty	
Flexible Pavement	Asphaltic concrete	1.0	2.0	N/A
	Crushed limerock base course	6.0	8.0	100
	Stabilized subgrade	12.0	12.0	40
Rigid Pavement	Reinforced concrete	6.0	8.0	N/A
	Crushed limerock base course	N/A	8.0	100
	Stabilize subgrade	12.0	12.0	40

The wearing course shall consist of either asphaltic concrete or Reinforced concrete as indicated above.

The base course shall consist of crushed limerock having a minimum carbonates content of 70%, liquid limit shall not exceed 35; the material shall be non-plastic, with an L.B.R. value of 100 or greater. The material shall be well graded with 97% (by weight) of the material passing the 3 inch sieve and less than 5% passing the No. 200 sieve. The base course shall be placed in lifts not to exceed 6 inches in thickness.

The subgrade should be stabilized to a minimum depth of 12 inches below the base course. The stabilized subgrade material shall be clean granular soil, free of organic or other deleterious materials, and shall contain no more than 5 percent fines passing a U.S. Standard No. 200 sieve. (classified as GW/SW). The L.B.R. value shall be 40 or greater.

Both the base course and the stabilized subgrade shall be compacted to a minimum of 98% of ASHTO.180.C.

Due to the lack of information pertaining to the site traffic, the pavement recommendations are based on assumed traffic volumes. These volumes include automobiles and occasional truck and trailer on the access roads.



Actual pavement section thickness should be provided by the Design Civil Engineer based on traffic loads, volume, and the owner's design life requirements. The above sections represent minimum thickness representative of typical local construction practices and, as such, periodic maintenance should be anticipated. All pavement materials and construction procedures should conform to FDOT, American Concrete Institute (ACI), or appropriate city/county requirements.

#### PROTECTION OF ADJACENT PROPERTIES:

Where impact to adjacent properties is expected due to the vicinity of the proposed construction to the existing structures; a support of excavations, settlement, vibration and dewatering monitoring plan must be developed to avoid damage and impact to adjacent sites. D.E.C. will be pleased to develop such a plan when requested.



### LIMITATIONS

This report was prepared in compliance with the 2023 Florida Building Code 8<sup>th</sup> edition. Site elevations were not provided to us for the test locations. Depths reported on the field boring logs represent the depth below existing ground surface as they existed on the date of drilling. In the event of subsequent filling, excavations or site work, the reported depths must be adjusted to represent proper depth.

The boring log (s) attached present (s) a detailed description of the soils encountered at test location (s). The soil stratification shown on the boring log (s) is based on the examination of the recovered soil samples and interpretation of the driller's field log (s). It indicates only the approximate boundaries between soil types. The actual transitions between adjacent soil types may be gradual. Regardless of the thoroughness of a geotechnical exploration there is always the possibility that conditions may be different from those of the test locations; therefore, DYNATECH ENGINEERING CORP. does not guarantee any subsoil conditions between the bore test holes. In accepting and using this report the client understands and accepts that all data from the borings are strictly for foundation analysis only and are not to be used for excavation or back filling estimates and pricing. Owner and site contractor must familiarize themselves with site conditions prior to bidding. Client recognizes that actual conditions in areas not tested by DEC may differ from those anticipated in DEC's report. Client understands and accepts that this can significantly increase the cost of construction for its future projects. Client agrees that DEC shall not be responsible or liable for any variations in the actual conditions of areas not tested by DEC. This report is not a Phase I and/or Phase II Environmental Site Assessments. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, & authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval. The scope of services performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user. Said user must contact DEC in writing to verify applicability of this report for their use. All work must be conducted under the supervision of our geotechnical engineer. The discovery of any site or subsurface conditions during construction which deviate from the information obtained from our subsoil investigation is always likely & should be reported to us for our evaluation. All work shall be conducted in compliance with the FBC & OSHA workers protection rules and all applicable Federal, State, County and City rules & regulations. In the event, changes, challenges & other value engineering opportunities occur without our knowledge, our recommendations may become compromised and geotechnical related issues may be misconstrued. Therefore, all geotechnical work shall be performed under our supervision to verify compliance with the intent of our recommendations.



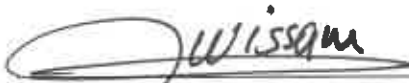
All work must be conducted under the supervision of our geotechnical engineer. The discovery of any site or subsurface conditions during construction which deviate from the information obtained from our subsoil investigation is always likely and should be reported to us for our evaluation.

Dynatech Engineering Corp. (DEC) cannot assume responsibility for the use of this report without our further involvement during the design and construction of this project.

All work shall be conducted in compliance with the Florida Building Code FBC and OSHA workers protection rules and all applicable Federal, State, County and City rules and regulations.

It has been a pleasure working with you and look forward to do so in the near future.

Sincerely yours,

  
Wissam Naamani, P. E. 10-10-2024  
DYNATECH ENGINEERING CORP.  
Florida Reg. No. 39584  
Special Inspector No. 757  
Certificate of Authorization No. CA 5491

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BY WISSAM SAAD NAAMANI, P.E. ON  
THE DATE ADJACENT TO THE SEAL.

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# APPENDIX



# **DRILLING APPENDIX**

### TEST BORING FIELD LOG

**CLIENT** : 102SW 1<sup>ST</sup>, LLC.  
**PROJECT** : Proposed 5-Story Building @  
**ADDRESS** : 2306 Van Buren Street, Hollywood, FL  
**LOCATION** : See attached sketch

**DATE:** October 8, 2024  
**HOLE NO.:** B-1  
**DRILLER:** NV & ZG

Depth (ft) From - To	DESCRIPTION OF MATERIALS	Depth (ft) From - To	HAMMER BLOWS ON SAMPLER	"N"
		0-2	Hand	H
0'-0" to 0'-6"	GRASS AND TOPSOIL	2-4	4 3 4 5	7
0'-6" to 1'-0"	BROWN W/GRAY MEDIUM SAND AND WHITE SAND	4-6	2 2 3 6	5
1'-0" to 5'-6"	WHITE MEDIUM SAND	6-8	8 5 6 7	11
5'-6" to 8'-0"	DARK BROWN MEDIUM SAND W/VERY LIGHT STAIN	8-10	A	A
8'-0" to 27'-6"	TAN MEDIUM SAND W/SOME LIMESTONE FRAGMENTS	10-12	A	A
27'-6" to 30'-0"	TAN VERY SANDY LIMESTONE	12-14	A	A
30'-0" to 34'-6"	TAN MEDIUM SAND W/SOME LIMESTONE FRAGMENTS	14-16	7 8 6 7	14
34'-6" to 38'-0"	TAN SANDY LIMESTONE	16-18	A	A
		18-20	A	A
		20-22	A	A
		22-24	7 6 7 8	13
		24-26	A	A
		26-28	A	A
		28-30	A	A
		30-32	8 9 8 7	17
		32-34	A	A
		34-36	A	A
		36-38	A	A

**Water Level:** 8'-6" Below Existing Land Surface at time of drilling As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statement conclusions or extracts from or regarding our reports is reserved pending on our written approval. H.A.: Hand Auger; A: Hollow Stem Auger; R: Refusal, AUGER DRILLING: S: Soft, M: Medium, H: Hand, R: Refusal, V.H.: Very Hard.



### TEST BORING FIELD LOG

**CLIENT** : 102SW 1<sup>ST</sup>, LLC.  
**PROJECT** : Proposed 5-Story Building @  
**ADDRESS** : 2306 Van Buren Street, Hollywood, FL  
**LOCATION** : See attached sketch

**DATE:** October 8, 2024  
**HOLE NO.:** B-1  
**DRILLER:** NV & ZG

Depth (ft) From - To	DESCRIPTION OF MATERIALS	Depth (ft) From - To	HAMMER BLOWS ON SAMPLER	"N"
38'-0" to 41'-6" 41'-6" to 44'-6" 44'-6" to 48'-0" 48'-0" to 50'-0"	TAN SANDY LIMESTONE TAN MEDIUM SAND TAN SANDY LIMESTONE TAN MEDIUM SAND	38-40	18 20 16 22	36
		40-42	A	A
		42-44	A	A
		44-46	A	A
		46-48	17 19 18 23	37
		48-50	A	A
		50-52		
		52-54		
		54-56		
		56-58		
		58-60		
		60-62		
		62-64		
		64-66		
		66-68		
		68-70		
		70-72		
		72-74		
		74-76		

**Water Level:** 8'-6" Below Existing Land Surface at time of drilling As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statement conclusions or extracts from or regarding our reports is reserved pending on our written approval. H.A.: Hand Auger; A: Hollow Stem Auger; R: Refusal., AUGER DRILLING: S: Soft, M: Medium, H: Hard, R: Refusal, V.H.: Very Hard.

### TEST BORING FIELD LOG

**CLIENT** : 102SW 1<sup>ST</sup>, LLC.  
**PROJECT** : Proposed 5-Story Building @  
**ADDRESS** : 2306 Van Buren Street, Hollywood, FL  
**LOCATION** : See attached sketch

**DATE:** October 8, 2024  
**HOLE NO.:** B-2  
**DRILLER:** NV & ZG

Depth (ft) From - To	DESCRIPTION OF MATERIALS	Depth (ft) From - To	HAMMER BLOWS ON SAMPLER	"N"
		0-2	Hand	H
0'-0" to 0'-6"	GRAVEL ROCKS W/TOPSOIL	2-4	4 3 3 4	6
0'-6" to 1'-6"	BROWNISH GRAY SANDY SILT	4-6	2 2 1 3	3
1'-6" to 5'-0"	WHITE MEDIUM SAND	6-8	7 6 5 7	11
5'-0" to 8'-0"	DARK BROWN MEDIUM SAND	8-10	A	A
8'-0" to 27'-0"	TAN MEDIUM SAND W/SOME LIMESTONE FRAGMENTS	10-12	A	A
27'-0" to 29'-6"	TAN VERY SANDY LIMESTONE	12-14	A	A
29'-6" to 34'-0"	TAN MEDIUM SAND W/SOME LIMESTONE FRAGMENTS	14-16	8 6 7 6	13
34'-0" to 38'-0"	TAN SANDY LIMESTONE	16-18	A	A
		18-20	A	A
		20-22	A	A
		22-24	8 7 7 6	14
		24-26	A	A
		26-28	A	A
		28-30	A	A
		30-32	9 8 8 7	16
		32-34	A	A
		34-36	A	A
		36-38	A	A

**Water Level:** 8'-6" Below Existing Land Surface at time of drilling As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statement conclusions or extracts from or regarding our reports is reserved pending on our written approval. H.A.: Hand Auger; A: Hollow Stem Auger; R: Refusal, AUGER DRILLING: S: Soft, M: Medium, H: Hand, R: Refusal, V.H.: Very Hard.

## TEST BORING FIELD LOG

**CLIENT** : 102SW 1<sup>ST</sup>, LLC.  
**PROJECT** : Proposed 5-Story Building @  
**ADDRESS** : 2306 Van Buren Street, Hollywood, FL  
**LOCATION** : See attached sketch

**DATE:** October 8, 2024  
**HOLE NO.:** B-2  
**DRILLER:** NV & ZG

Depth (ft) From - To	DESCRIPTION OF MATERIALS	Depth (ft) From - To	HAMMER BLOWS ON SAMPLER	"N"
38'-0" to 42'-0" 42'-0" to 44'-0" 44'-0" to 48'-0" 48'-0" to 50'-0"	TAN SANDY LIMESTONE TAN MEDIUM SAND TAN SANDY LIMESTONE TAN MEDIUM SAND	38-40	16 18 20 17	38
		40-42	A	A
		42-44	A	A
		44-46	A	A
		46-48	19 18 17 21	35
		48-50	A	A
		50-52		
		52-54		
		54-56		
		56-58		
		58-60		
		60-62		
		62-64		
		64-66		
		66-68		
		68-70		
		70-72		
		72-74		
		74-76		

**Water Level:** 8'-6" Below Existing Land Surface at time of drilling As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statement conclusions or extracts from or regarding our reports is reserved pending on our written approval. H.A.: Hand Auger; A: Hollow Stem Auger; R: Refusal, AUGER DRILLING: S: Soft, M: Medium, H: Hand, R: Refusal, V.H.: Very Hard.

### TEST BORING FIELD LOG

**CLIENT** : 102SW 1<sup>ST</sup>, LLC.  
**PROJECT** : Proposed 5-Story Building @  
**ADDRESS** : 2306 Van Buren Street, Hollywood, FL  
**LOCATION** : See attached sketch

**DATE:** October 8, 2024  
**HOLE NO.:** B-3  
**DRILLER:** NV & ZG

Depth (ft) From - To	DESCRIPTION OF MATERIALS	Depth (ft) From - To	HAMMER BLOWS ON SAMPLER	"N"
		0-2	Hand	H
0'-0" to 0'-6"	GRAVEL ROCKS	2-4	4 3 4 3	7
0'-6" to 1'-6"	GRAY SANDY SILT	4-6	5 4 4 3	8
1'-6" to 6'-0"	WHITE MEDIUM SAND	6-8	2 2 2 3	4
6'-0" to 8'-6"	DARK BROWN MEDIUM SAND W/VERY LIGHT STAIN	8-10	A	A
8'-6" to 28'-0"	TAN MEDIUM SAND W/SOME LIMEROCK TRACES	10-12	A	A
28'-0" to 30'-0"	TAN VERY SANDY LIMESTONE	12-14	A	A
30'-0" to 34'-0"	TAN MEDIUM SAND W/SOME LIMESTONE FRAGMENTS	14-16	7 6 7 6	13
34'-0" to 38'-0"	TAN SANDY LIMESTONE	16-18	A	A
		18-20	A	A
		20-22	A	A
		22-24	8 7 8 6	15
		24-26	A	A
		26-28	A	A
		28-30	A	A
		30-32	9 7 7 8	14
		32-34	A	A
		34-36	A	A
		36-38	A	A

**Water Level:** 8'-6" Below Existing Land Surface at time of drilling As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statement conclusions or extracts from or regarding our reports is reserved pending on our written approval. H.A.: Hand Auger, A: Hollow Stem Auger; R: Refusal., AUGER DRILLING: S: Soft, M: Medium, H: Hand, R: Refusal, V.H.: Very Hard.

### TEST BORING FIELD LOG

**CLIENT** : 102SW 1<sup>ST</sup>, LLC.  
**PROJECT** : Proposed 5-Story Building @  
**ADDRESS** : 2306 Van Buren Street, Hollywood, FL  
**LOCATION** : See attached sketch

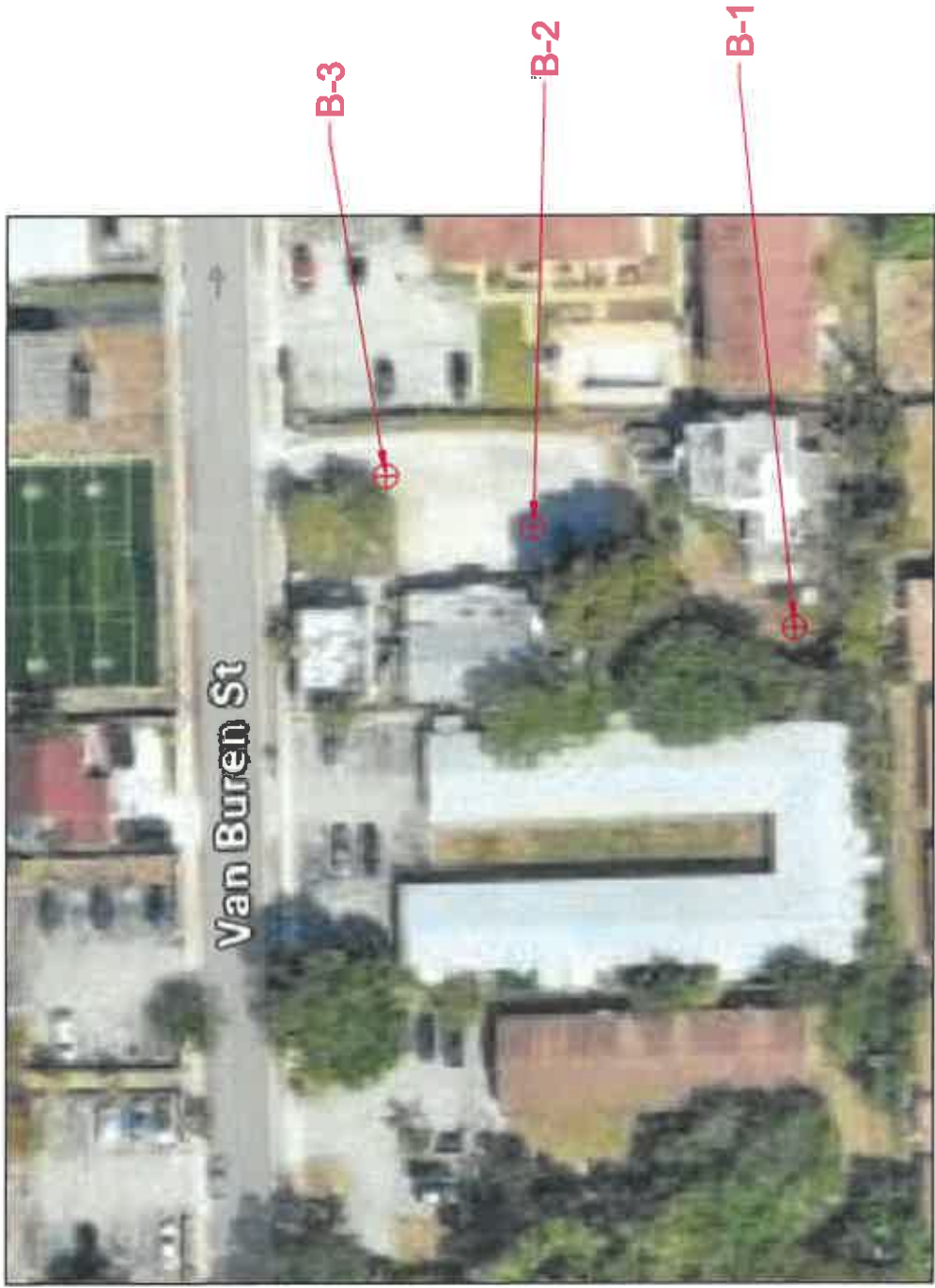
**DATE:** October 8, 2024  
**HOLE NO.:** B-3  
**DRILLER:** NV & ZG

Depth (ft) From - To	DESCRIPTION OF MATERIALS	Depth (ft) From - To	HAMMER BLOWS ON SAMPLER	"N"
38'-0" to 41'-6" 41'-6" to 45'-0" 45'-0" to 48'-0" 48'-0" to 50'-0"	TAN SANDY LIMESTONE TAN MEDIUM SAND TAN SANDY LIMESTONE TAN MEDIUM SAND	38-40	22 18 20 18	38
		40-42	A	A
		42-44	A	A
		44-46	A	A
		46-48	16 15 17 18	32
		48-50	A	A
		50-52		
		52-54		
		54-56		
		56-58		
		58-60		
		60-62		
		62-64		
		64-66		
		66-68		
		68-70		
		70-72		
		72-74		
		74-76		

**Water Level:** 8'-6" Below Existing Land Surface at time of drilling As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statement conclusions or extracts from or regarding our reports is reserved pending on our written approval. H.A.: Hand Auger; A: Hollow Stem Auger; R: Refusal, AUGER DRILLING: S: Soft, M: Medium, H: Hand, R: Refusal, V.H.: Very Hard.

# **SITE PLAN**

# SOIL BORING TESTS



## ⊕ SOIL BORING TEST LOCATIONS (B#)

DATE: OCTOBER 8, 2024	PROPOSED BUILDING 2306 VAN BUREN STREET HOLLYWOOD, FL 33020	DYNATECH ENGINEERING CORP. 750 WEST 84TH STREET HIALEAH, FLORIDA 33014 (TEL) 305-828-7498 (FAX) 305-828-8598 EMAIL: INFO@DYNATECHENGINEERING.COM	
CLIENT: 102W1ST, LLC.			
DRAWN BY: RN			
DRAWING SCALE: NOT TO SCALE			