

# Tunnel Geology: A Self-Guided Walking Tour of Downtown Houston's Buildings (2018)

## YELLOW LOOP – 1/4 MILE (~20 MIN)



### 1111 LOUISIANA



#### Flooring (Transitions)

Fossiliferous Limestone

#### Flooring (Main)/Baseboards/Wall Accents

Diabase/ Gabbro (dark grey-black mafic intrusive igneous)

#### Flooring (Transitions)

At the entrance and exit of this tunnel are new tiles of clayey or dolomitic limestone with small unidentified fossil fragments throughout

#### Wall Accents

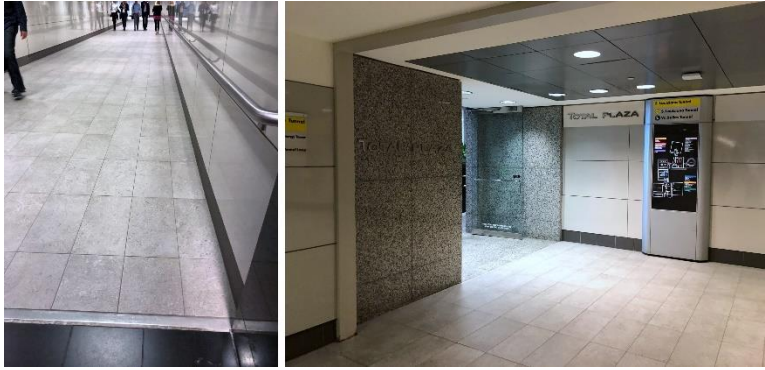
Polished diabase/gabbro containing small grained but just visible to naked eye dark minerals

#### Flooring (Main)

The center/main area of this walkway (in the tunnel we downtowners call the "Moon Room") between the fossiliferous limestone transition tiles is alternating polished and unpolished and sealed diabase/gabbro containing small grained but just visible to naked eye dark minerals



## TOTAL PLAZA – 1201 LOUISIANA

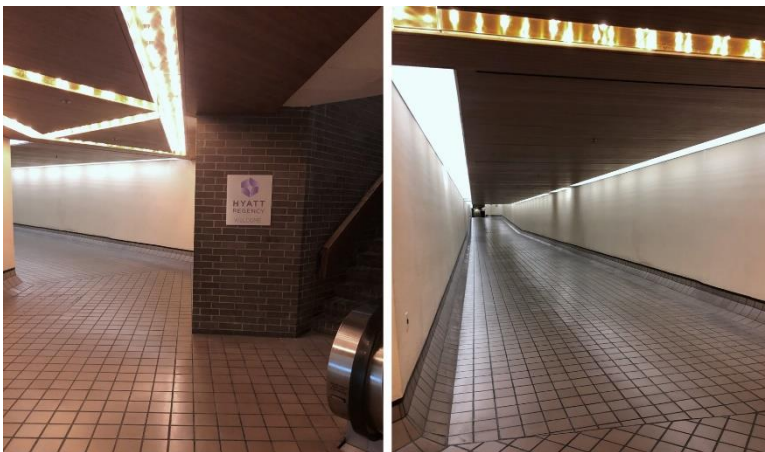


### Wall Accent

Granite (grey felsic-intermediate intrusive igneous)  
Color matched: Coldspring Iridian (trade) from Minnesota  
PreCambrian (1.8-1.75 gy)  
Observed: uniform medium grained granite containing smoky quartz, plagioclase feldspar, hornblende, pyroxene



## HYATT REGENCY – 1200 LOUISIANA



### Tunnel

No geologic stones present, keep walking...

## CLAY GARAGE – 777 CLAY



### Flooring

Granite (grey felsic-intermediate intrusive igneous)  
Color matched: Coldspring Iridian (trade) from Minnesota  
PreCambrian (1.8-1.75 gy)



Observed: uniform medium grained granite containing smoky quartz, plagioclase feldspar, hornblende, pyroxene, unpolished but thickly sealed

## WEDGE INTERNATIONAL – 1415 LOUISIANA



### Tunnel View of Patio

Granite (dark pink, felsic-intermediate intrusive igneous)

Probably from South Dakota (very similar to Houston Public Library)

Pegmatite veins dominant

### Tunnel View of Lobby

Marble (white with grey veins, metamorphic)

Pegmatite veins: holocrystalline (roughly), intrusive igneous rock composed of interlocking phaneritic crystals (usually larger than 1")

Observed: potassium feldspar rich veins and dark mineral veins, contains both pyroxene and hornblende, uniformly parallel veins throughout

Marble veins: due to various mineral impurities such as clay, silt, sand



# BEFORE YOU GO

- **Safety**
  - Look up, not at your phone, when navigating downtown
  - Please be mindful of the traffic lights, pedestrian signals, bike lanes, and buses
  - Buses make frequent stops and can sometimes hop curbs
  - Some curbs, pavements, and streets may be uneven
- **Etiquette**
  - Please review the walking guide prior to arriving downtown to maximize time spent on the tour
  - Please be mindful of downtown employees and keep slower pedestrian traffic to the right so they can go about their business
  - Try to walk in pairs if walking around downtown as a group
  - If approached by a homeless person, try to be firm but respectful

# REFERENCES

- Houston Geological Society, 1995, Walking Tour of Downtown Houston Building Stones: Research Committee, Philip W. Porter
- Houston Gem and Mineral Society, Houston Geologic Society, 2008, Walking Tour – Houston Building Stones, Neal Immega
- Fossils in the Architecture of Washington, D.C.: <http://dcfossils.org/index.php/gallery11/#origins>
- Brian Allison, Earth Science Guy blog (<http://mnearthscienceguy.blogspot.com/2012/07/minnesota-geology-monday-granites-of-st.html>)
- Wikipedia
- Geology.com

# CONTRIBUTORS

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