## OPEN SES AGREEMENT

The "Engineers" below agree to develop an open-source computer program and supporting documentation for a new version of the Subway Environment Simulation (SES) computer program, herein called "OpenSES".

Participating "Engineers" in alphabetical order:

Chermac Rolle	Justin Edenbaum	Tom O'Dwyer
Owner of MELIORIFIC Ltd.	Founder of Never Gray	Consultant

#### EXISTING SES 4.1

The engineers each have personal access to SES version 4.1 that was previously distributed in the public domain by the U.S. Department of Transportation - Volpe National Transportation Systems Center and their consultants.

#### **SECURITY ISSUES**

After the release of SES version 4.1 and the tragic events of 9/11, the United States government classified the program as Sensitive Security Information (SSI). This classification prohibits the further distribution of this program and its documentation to new parties.

The parties agree to continue this prohibition on distributing the program until this classification is officially removed. While this classification exists, the engineers agree to continue, in private, to develop the program and its documentation. This is being done improve the program and to be prepared for when the SSI classification is removed.

Currently, Justin Edenbaum is leading an effort to have the SSI removed. He will update engineers on his progress. This does not stop any other engineers from pursuing this matter independently.

#### VERSION 4.2

The version number 4.2 represents that updates are taken from SES 4.1. The goals for the first version of OpenSES, known as 4.2, are as follows:

- 1. Recompile SES 4.1 using an open-source compiler.
- 2. Increase array sizes to allow computation of larger models.
- 3. Minor adjustments for the computer program to perform better on Windows 10, then Linux operating system.
- 4. Check model outputs are comparable with SES 4.1.
- 5. Prepare for a potential distribution (if security clearances are removed).
- 6. Improve documentation of the program
- 7. Open-Source Licensing using the 3-Clause BSD License, see Appendix A

#### **FUTURE VERSIONS**

The engineers agree in good faith to create future versions of the program. The updates will be written and agreed upon by two of the three named engineers.

A future version of OpenSES may use the International System of Units (SI). This version might be construed to be from the past employer of the Engineers, Parsons Brinckerhoff. The Engineers will avoid direct copying of past work. This does not preclude the use of knowledge gained from past

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experiences with the software. Therefore, the development of OpenSES will be recorded to reflect its development post-employment at Parsons Brinckerhoff.

### DISBAND

If an engineer chooses to disband, the Engineers have the right to use and distribute the last version of the program issued prior to leaving this agreement. The engineers remaining in the agreement can continue to use the OpenSES name and future version numbers.

#### **SIGNATURE**

The Engineers sign and agree to this agreement.

Chermac Rolle	Justin Edenbaum	Tom O'Dwyer
Owner of MELIORIFIC Ltd.	Founder of Never Gray	Consultant
Date:	Date:	Date:

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