



**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
4 IRVING PLACE  
NEW YORK, NY 10003**

**DISTRIBUTION ENGINEERING  
DISTRIBUTION EQUIPMENT**

**SPECIFICATION EO-8085  
REVISION 10**

**GENERAL SPECIFICATION FOR BACKFILL  
AND BEDDING MATERIAL  
FOR EXCAVATIONS**

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<b>TARGET AUDIENCE</b>	<b>ENGINEERING AND PLANNING</b>
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<b>EFFECTIVE DATE:</b>	<b>May 15, 2020</b>

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EO-8085	10	May, 2020	05/15/2020	2007-2020 Consolidated Edison Co. of New York, Inc.	2/7
<b>Filing Information</b>		Purchase and Test		Manual No. 6, Section 16	

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## 1.0 PURPOSE

This specification applies to backfill and bedding material for use around conduits, manholes, vaults, underground residential distribution (URD) installations, and coated steel pipes for 69KV, 138KV and 345KV electric cable circuits, and all gas mains and all gas mains and services.

## 2.0 APPLICATION

All Customer Service Areas and Gas Operations.

## 3.0 DEFINITIONS

- 3.1 The term “Con Edison” as used in this Specification refers to the Consolidated Edison Company of New York, Inc.
- 3.2 The term “Con Edison Engineer” as used in this Specification refers to the project engineer.
- 3.3 The term “Con Edison Construction Representative” as used in this Specification refers to the Construction Manager, Contract Construction Manager or his authorized representative.

## 4.0 GENERAL APPROVALS

Con Edison Engineer or Con Edison Construction Representative shall have the right to examine all fill ordered in accordance with this Specification prior to its placement and reject any order which does not comply with this Specification. The Contractor shall be responsible for the trucking cost of any loads, which are rejected.

## 5.0 MATERIAL

- 5.1 **Backfill** – Backfill material shall be composed of either suitable on-site materials or selected off-site borrow. The backfill material must not exhibit any discernable odor (petroleum, solvent, or other harmful materials), visible staining or swelling. It shall have a pH value greater than 5.5 and shall be free of cinders, ashes, vegetable matter, rubbish or any foreign matter. Backfill material shall conform to one of the following types, as per project requirements.

### 5.1.1 Type 3/8:

This material shall be clean natural sand conforming to the sieve analysis per ASTM C33 and as shown in Table 1.

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### 5.1.2 Type 1:

This material shall be clean fill conforming to the sieve analysis shown in Table 2.

### 5.1.3 Type 2:

This material is on-site excavated rock/soil and shall conform to the sieve analysis shown in Table 3

**5.2 Recycled Backfill** - Backfill material composed of excavated material recycled at a New York State Department of Environmental Conservation certified recycling facility is permitted. The recycled backfill shall conform to the requirements of section 5.1.

**5.3 Fill Materials** – Fill materials containing or comprised of “Stone Dust”, or “Pond Fill” (crystalline silica) shall not be used as backfill material.

## 6.0 COMPACTION

The compaction criteria specified in EO-1181 shall be followed for all installations listed in Section 1.0.

## 7.0 REFERENCES

<a href="#">EO-1181</a>	General Specification for Backfilling of Trench and Small Opening
<a href="#">CE-TS-4074</a>	General Purchase Specification for Controlled Thermal sand Material for High Pressure Pipe Type Cables
ASTM-C33	Slandered Specification for Concrete Aggregates.
ASTM-D448	Standard Classification for Sizes of Aggregate for Road and Bridge Construction
ASTM-E11	Standard Specification for Woven Wire Test Sieve Cloth and Test Sieves
NYS-DOT	Standard Specification -703
NYC-DOT	Standard Back Fill Materials Spec

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## 8.0 REVISION SUMMARY

<p><b><u>REVISION No. 10</u></b></p> <ul style="list-style-type: none"> <li>- General format.</li> <li>- Add Sieves analysis test item 3</li> <li>- Backfill definition - Item 5.1</li> <li>- Add clean natural sand for type 3/8</li> <li>- Type II definition.</li> <li>- Revised gradation table 1 &amp; 3</li> <li>- Added references</li> </ul>	<p><b><u>FILE:</u></b></p> <p>Purchase and Test, Manual No. 6, Sect. 16 - Pipe Type Cable Field Manual # 22, Sec. 10</p>
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## 9.0 ATTACHMENTS

- [Table 1](#)      Type 3/8", Clean Natural Sand Fill Materials Sieves Limits
- [Table 2](#)      Type 1, Fill Material Sieves Limits
- [Table 3](#)      Type 2, On-site Borrow Material Sieves Limits

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## ATTACHMENT

**TABLE 1**

<b>Sieve Size</b>	<b>Percent Passing</b>
3/8"	100
#4	95 - 100
#8	80 - 100
#16	50 - 85
#30	25 - 60
#50	5 - 30
#100	0 - 10
#200	0 - 3

**TABLE 2**

<b>Sieve Size</b>	<b>Percent Passing</b>
1"	100
3/4"	95 - 100
#4	60 - 85
#8	45 - 70
#30	15 - 30
#50	5 - 20
#200	0 - 3

**TABLE 3**

<b>Sieve Size</b>	<b>Percent Passing</b>
2"	100
#8	45 - 70
#200	0 - 15

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