PART 1 – GENERAL

1.1 RELATED WORK

.1 Refer to other Specification Sections for related information.

.2 Refer to Section 01 33 00 for submittal requirements.

1.2 REFERENCE STANDARDS

.1 ASTM C127-88(2001) el (or latest edition) Specific Gravity and Absorption or Coarse Aggregate.

.2 AASHTO T85-88 (or latest edition) Specific Gravity and Absorption of Coarse Aggregate.

1.3 SUBMISSIONS

.1 Product Data/Samples:
.1 Provide samples of materials proposed for the work.

.2 Methodology:
.1 Provide methodologies for carrying out the work.

.3 Provide submissions in accordance with Section 01 33 00.

1.4 MEASUREMENT FOR PAYMENT

.1 Class "A" gravel, rock fill and structural fill will be measured in accordance with Section 01 10 10.

.2 Prices will include the entire cost of supplying and placing the material in the work, rough grading as necessary, the leveling and finish grading of the listed materials, taking soundings, diving inspections, shoring, bracing, underpinning dewatering of excavation all as shown on the drawings, and as specified.

PART 2 – PRODUCTS

2.1 MATERIALS

.1 Class "A" Gravel

.1 Gravels shall be sound, hard, durable material free from soft, thin, elongated or laminated particles, organic material or other deleterious substances. The material shall be approved by a Departmental Representative prior to utilization.

.2 The gravel shall meet the gradation requirements detailed in Table 1. Gradation to be within the following limits when tested to ASTM C136 and giving a smooth curve without sharp breaks when plotted on a semi-log grading chart.

.3 Los Angeles Abrasion to ASTM C131 maximum percent loss by mass: 35.

.4 Petrographic number (max): 150.

Table 1 – Class "A" Gravel

ASTM Sieve Designation	% Passing by Mass
31.5 mm	100
25.0 mm	95-100
12.5 mm	50-83
4.75 mm	30-60
1.18 mm	15-40
600 µm	10-32
300 µm	5-22
75 µm	3-9

.2 Rock Fill to be hard durable crushed quarried rock, free from silt, clay, organic matter and other foreign substances and free from splits, seams or defects likely to impair its soundness during handling or under action of water. Rock Fill shall be imported, well graded and free from fines. Gradation as per Table 2. The following materials will not be considered acceptable for use as rock fill: slate, siltstone, sandstone, shale, conglomerate, and mudstone. The material is to be blended to ensure a homogeneous mix of smaller and larger stone sizes will be

obtained.

Table 2 – Rock Fill

ASTM Sieve Designation	% Passing by Mass
112 mm	100
40 mm	60-85
5 mm	25-50
.315 mm	5-15
.080 mm	2-7

.3 Structural fill (Premium borrow) shall consist of an approved soil (preferable granular) which is free of organics and deleterious materials such as a pit run sandstone or other approved inorganic soil. Fill material meeting the current Prince Edward Island Transportation and Infrastructure Renewal (PEITIR) Premium Borrow specification. Premium borrow shall be non-plastic well graded and composed of clean, uncoated particles free from lumps or other deleterious materials with a maximum particle size of 100 mm and a maximum of 20% of the material passing the 4.75 mm sieve shall pass the 75 µm sieve. Structural fills to be placed and compacted to 100% Standard Proctor maximum dry density. Max lift thickness should not exceed 300 mm and must be compatible with the compaction equipment used.

PART 3 – EXECUTION

3.1 PREPARATION

.1 Prior to placing rock fill behind the new SSP wall, ensure all construction debris is removed and Geotextile is installed as per Section 31 32 19.01.

.2 Prior to placing structural fill, ensure sub base is free from debris and if it had been disturbed, compact the sub base material to 98% of its standard proctor density.

.3 Prior to placing Class “A” gravel, ensure

structural fill is installed as per this specification and is to the proper grade as indicated on the contract documents.

3.2 PLACEMENT

.1 Ensure the placement method for rock fill, structural fill and Class "A" gravel is reviewed and approved by a Departmental Representative before commencing the work.

.2 Place sub-base material to avoid segregation of material sizes.

.3 Level top surface of sub-base to specified grade.

3.3 TOLERANCES

.1 Surface of bearing layer to be within 50 mm of elevation indicated and variation in elevation over whole area of bearing layer not to exceed 75mm.

.2 Other layers to be within 100 mm of lines shown.

3.4 PROTECTION

.1 Take into account anticipated weather conditions and degree of exposure of site in setting requirements for protection.

.2 Schedule and carry out construction so that each phase of work is not left exposed longer than necessary.

.3 The Contractor should note that the work site is subject to water level variations due to tidal action.

.4 The Contractor will be responsible to replace any materials lost due to storms, tidal erosion or by his own activities.

.5 Provide similar level of protection of East Breakwater as exists in present West Breakwater.

END OF SECTION