**Bond Performance Characterization of SRP to Concrete**

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**Objectives:**
Conduct experimental and analytical studies that can substantiate the feasibility of SRP for implementation into the flexural strengthening of RC and PC members, by studying constitutive relations and bond characteristics.

**Background:**
FRP materials have exhibited several properties making them suitable for upgrade of PC and RC members. However, high material costs has motivated the need for the more economically feasible Steel Reinforced Polymer.

**Test Matrix:**

**Phase 1: Push-Out Tests**
- Number of Plies: 1 2 3
- Bonded Length (in.): 4 8 12
- Number of Specimen: 3

**Phase 2: Pull-Off Tests**
- Number of Plies: 1 2 3
- Bonded Length (in.): 4 8 12
- Number of Specimen: 3

**Phase 3: Torque Test**

**Phase 4: Peel-Off Test**

**Phase 5: Pull-Out Beam Test**

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**Phase 3 Torque Test**

**Phase 4: Peel-Off Test**

**Steel Hinge**
- Saw Cut
- Monitored Side
- Steel Hinge
- SRP Wraps
- Strain Gages
- Unbonded Length

**Concrete Substrate**

**Cylinder**
- Cylinder Guiding system
- SRP Strip

**Cylinder**
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**SRP Material**

**Phase 1: Push-Out Tests**

**Phase 2: Pull-Off Tests**