



Slope Installation

Instructions EXCEL CS-3™
All Natural

* Drawings Not to Scale

Step 1 - Site Preparation

Prepare site to design profile and grade. Remove debris, rocks, clods, etc.. Ground surface should be smooth prior to installation to ensure blanket remains in contact with slope.

Step 2 - Seeding

Seeding of site should be conducted to design requirements or to follow local or state seeding requirements as necessary.

Step 3 - Staple Selection

At a minimum, 6 in. long by 1 in. crown, 11 gauge staples are to be used to secure the blanket to the ground surface. Installation in rocky, sandy or other loose soil may require longer staples.

Step 4 - Excavate Anchor Trench and Secure Blanket

Excavate a trench along the top of the slope to secure the upstream end of the blanket. The trench should run along the length of the installation, be 6 in. wide and 6 in. deep. Staple blanket along bottom of trench, fill with compacted soil, overlap blanket towards toe of slope and secure with row of staples (shown in Figures A, E and F).

Step 5 - Secure Body of Blanket

Roll blanket down slope from anchor trench. Staple body of blanket following the pattern shown in Figure D. Leave end of blanket unstapled to allow for overlap shown in Figure B. Place downstream blanket underneath upstream blanket to form shingle pattern. Staple seam as shown in Figure E. Secure downstream blanket with stapling pattern shown in Figure D. Stapling pattern shown in Figure D reflects minimum staples to be used. More staples may be required to ensure blanket is sufficiently secured to resist mowers and foot traffic and to ensure blanket is in contact with soil surface over the entire area of blanket. Further, critical points require additional staples. Critical points are identified in Figure G.

Step 6 - Continue Along Slope - Complete Installation

Overlap adjacent blankets as shown in Figure C and repeat Step 5. Secure toe of slope using stapling pattern shown in Figure E. Secure edges of installation by stapling at 1.5' intervals along the terminal edge.

Figure A

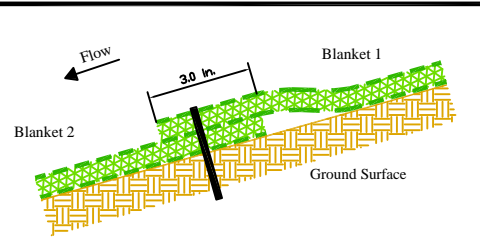


Figure B - Profile View

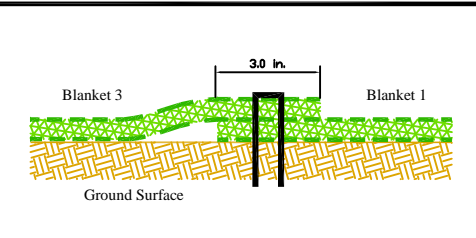


Figure C - Cross Section View

Product Application/Equivalency Specifications

Excel CS-3 All Natural is produced by Western Excelsior and consists of an extended term Rolled Erosion Control Product (RECP) comprised of a coconut/straw blend matrix mechanically (stitch) bound between two, biodegradable jute/scrim nets (top and bottom). The expected longevity of Excel CS-3 All Natural is approximately 24 months (actual longevity dependent on field and climatic conditions). Excel CS-3 All Natural is manufactured to include physical properties sufficient to provide the intended longevity and performance. Product specifications may be found on document WE_EXCEL_CS3AN_SPEC and performance information may be found on document WE_EXCEL_CS3AN_PERF. All documents are available from Western Excelsior Technical Support or www.westernexcelsior.com. Additional to above, equivalent products to Excel CS-3 All Natural must meet identical criteria as Excel CS-3 All Natural as follows:

1. Consist of a coconut/straw blend matrix mechanically (stitch) bound between two, biodegradable jute/scrim nets.
2. Sufficient tensile strength, thickness and coverage to maintain integrity during installation and ensure material performance.
3. Listing within AASHTO NTPEP database.
4. Meet ECTC specification for category 3B products.

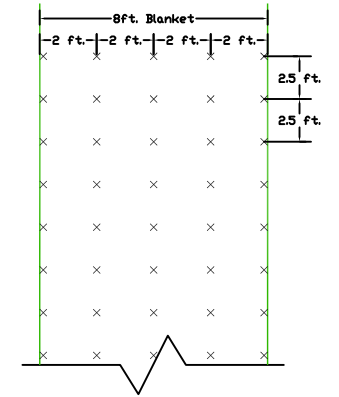
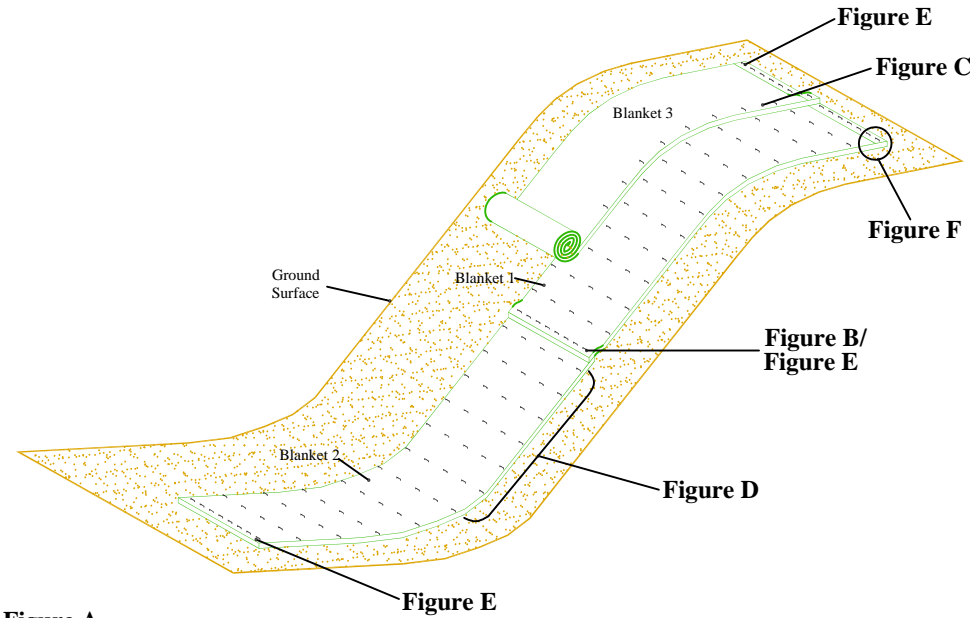


Figure D - Plan View X - Denotes Staple Location

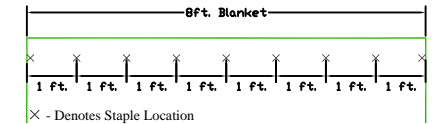


Figure E - Plan View

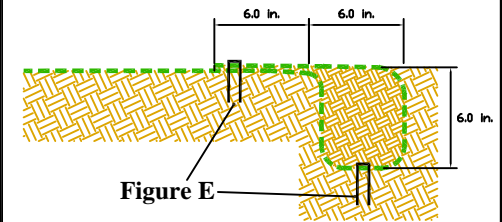


Figure F - Profile View

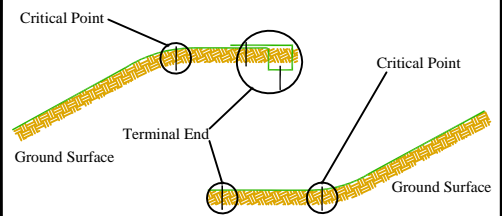


Figure G - Critical Point Securing



Channel Installation

Instructions EXCEL CS-3™
All Natural

* Drawings Not to Scale

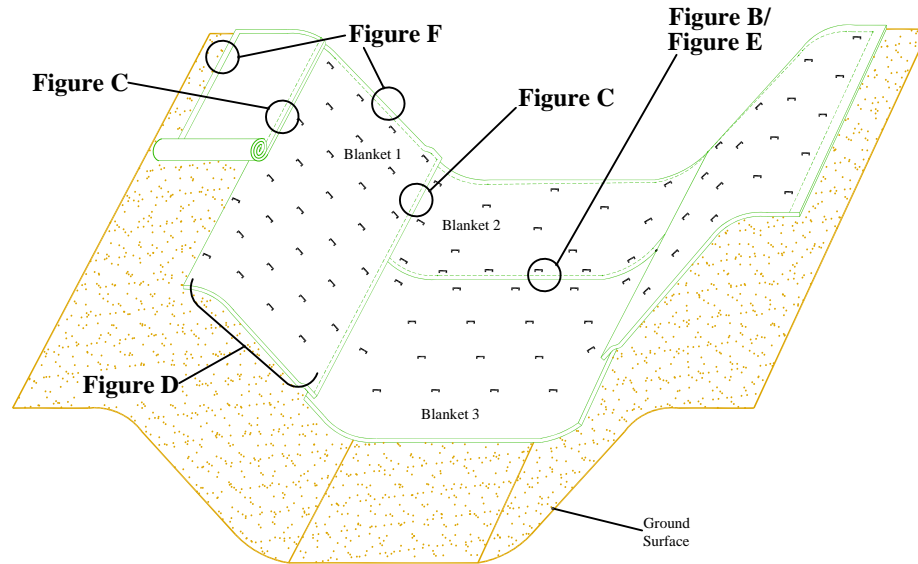


Figure A

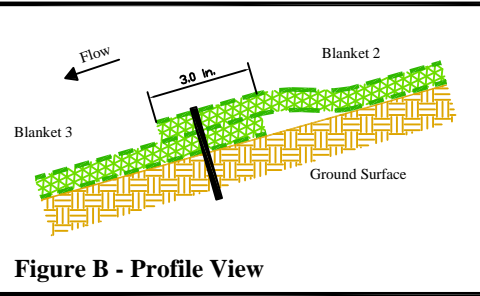


Figure B - Profile View

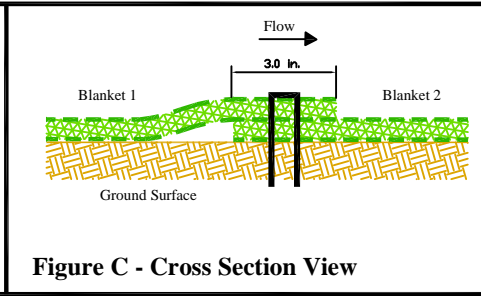


Figure C - Cross Section View

Product Application/Equivalency Specifications

Excel CS-3 All Natural is produced by Western Excelsior and consists of an extended term Rolled Erosion Control Product (RECP) comprised of a coconut/straw blend matrix mechanically (stitch) bound between two, biodegradable jute/scrim nets (top and bottom). The expected longevity of Excel CS-3 All Natural is approximately 24 months (actual longevity dependent on field and climatic conditions). Excel CS-3 All Natural is manufactured to include physical properties sufficient to provide the intended longevity and performance. Product specifications may be found on document WE_EXCEL_CS3AN_SPEC and performance information may be found on document WE_EXCEL_CS3AN_PERF. All documents are available from Western Excelsior Technical Support or www.westernexcelsior.com. Additional to above, equivalent products to Excel CS-3 All Natural must meet identical criteria as Excel CS-3 All Natural as follows:

1. Consist of a coconut/straw blend matrix mechanically (stitch) bound between two, biodegradable jute/scrim nets.
2. Sufficient tensile strength, thickness and coverage to maintain integrity during installation and ensure material performance.
3. Listing within AASHTO NTPEP database.
4. Meet ECTC specification for category 3B products.

Step 1 - Site Preparation

Prepare site to design profile and grade. Remove debris, rocks, clods, etc.. Ground surface should be smooth prior to installation to ensure blanket remains in contact with slope.

Step 2 - Seeding

Seeding of site should be conducted to design requirements or to follow local or state seeding requirements as necessary.

Step 3 - Staple Selection

At a minimum, 6 in. long by 1 in. crown, 11 gauge staples are to be used to secure the blanket to the ground surface. Installation in rocky, sandy or other loose soil may require longer staples.

Step 4 - Excavate Anchor Trench and Secure Blanket

Excavate a trench along the top of the channel side slopes and the upstream terminal end of the channel to secure the edges of the blanket. The trench should run along the length and width of the installation, be 6 in. wide and 6 in. deep. Staple blanket along bottom of trench, fill with compacted soil, overlap blanket towards toe of slope and secure with row of staples (shown in Figures A, E and F).

Step 5 - Secure Body of Blanket

Roll blanket down slope from anchor trench. Staple body of blanket following the pattern shown in Figure D. Leave end of blanket unstapled to allow for overlap shown in Figure B. Place downstream blanket underneath upstream blanket to form shingle pattern. Staple seam as shown in Figure E. Secure downstream blanket with stapling pattern shown in Figure D. Stapling pattern shown in Figure D reflects minimum staples to be used. More staples may be required to ensure blanket is sufficiently secured to resist mowers and foot traffic and to ensure blanket is in contact with soil surface over the entire area of blanket. Further, critical points require additional staples. Critical points are identified in Figure G.

Step 6 - Continue Along Slope - Complete Installation

Overlap adjacent blankets as shown in Figure C and repeat Step 5. Secure toe of slope using stapling pattern shown in Figure E. Secure edges of installation by stapling at 1.5' intervals along the terminal edge.

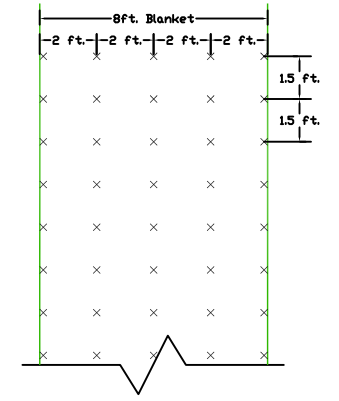


Figure D - Plan View X - Denotes Staple Location

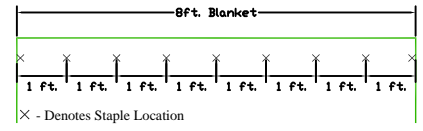


Figure E - Plan View X - Denotes Staple Location

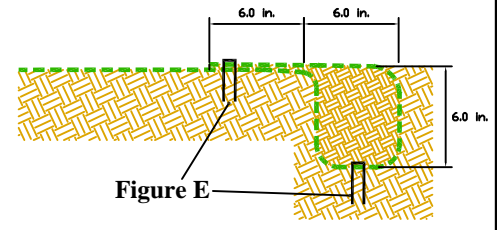


Figure F - Profile View

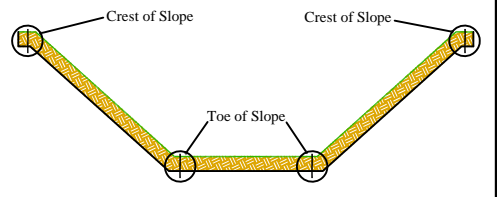


Figure G - Critical Point Securing



Instalación en Pendiente

Instrucciones EXCEL CS-3™

All Natural

Paso 1 - Preparación del Lugar

Prepare el lugar según el perfil del diseño y de la pendiente. Remueva el escombros, piedras, y terrones, etc. La superficie de la tierra debe estar lisa antes de la instalación para asegurar que el cojín permanezca en contacto con la pendiente.

Paso 2 - Semilla

El sembrado de la semilla en el lugar se debe hacer de acuerdo a los requisitos del diseño o a los requisitos locales y estatales, según sea necesario.

Paso 3 - Selección de Grapas

Lo mínimo que se debe usar son grapas de calibre 11, de 6 in. de largo y 1 in. de corona para sujetar el cojín a la superficie de la tierra. La instalación en tierra rocosa, arenosa o suelta puede requerir grapas más largas.

Paso 4 - Excave Zanja para Anclaje y Sujete el Cojín

Excave una zanja a lo largo de la parte superior de las pendiente para sujetar la punta de arriba del cojín. La zanja debe correr a lo largo de la instalación, tener 6 in. de ancho y 6 in. de profundidad. Engrape el cojín a lo largo del fondo de la zanja; llénela con tierra compactada, empalme el cojín hacia la parte inferior de la pendiente y sujételo con una hilera de grapas (Vea las Figuras A, E y F).

Paso 5 - Sujete el Cuerpo del Cojín

Desenrolle el cojín hacia abajo desde la zanja de anclaje. Engrape el cuerpo del cojín siguiendo el patrón que se muestra en la Figura D. Deje la punta del cojín sin engrapar para que lo pueda empalmar como se muestra en la Figura B. Coloque el cojín que baja por debajo del de arriba para formar un patrón como de tejas. Engrape las uniones como se muestra en la figura E. Sujete el cojín de bajada con el patrón de engrapado que se muestra en la Figura D. El patrón de engrapado de la Figura D refleja el mínimo de grapas que se debe usar. Se pueden requerir más grapas para asegurar que el cojín quede sujetado suficientemente para resistir podadoras y tráfico a pie y para asegurar que el cojín permanezca en contacto con la superficie de la tierra en toda el área. Además, los puntos críticos requieren grapas adicionales. Los puntos críticos están identificados en la Figura G.

Paso 6 - Continúe a lo largo de la Pendiente - Termine la Instalación

Empalme los cojines adyacentes como se muestra en la Figura C y repita el Paso 5. Sujete la parte inferior de la pendiente usando el patrón de grapas que se muestra en la Figura E. Sujete las orillas de la instalación engrapando a intervalos de 1.5' a lo largo de la orilla.

* El Dibujo No Está a Escala Se.

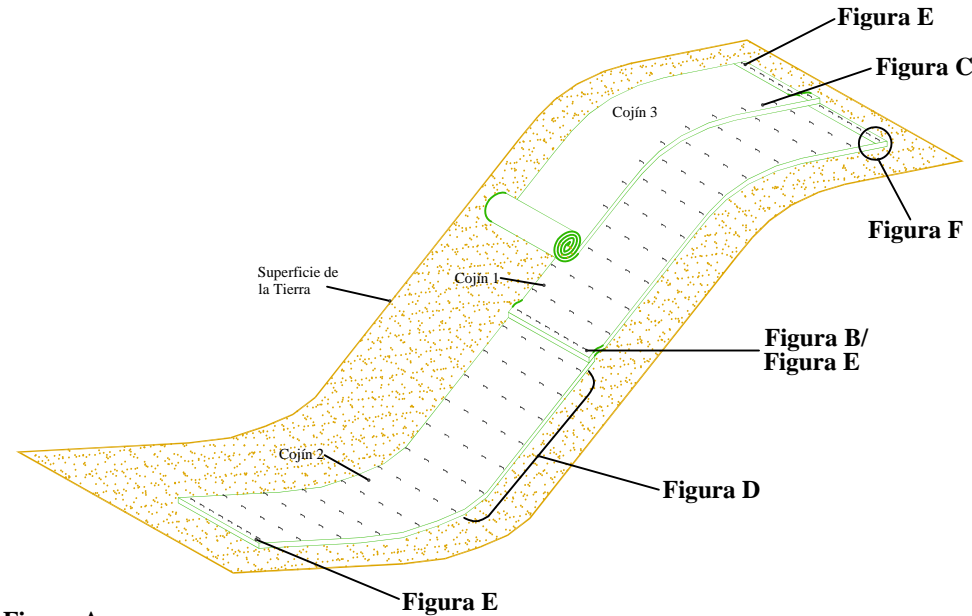


Figura A

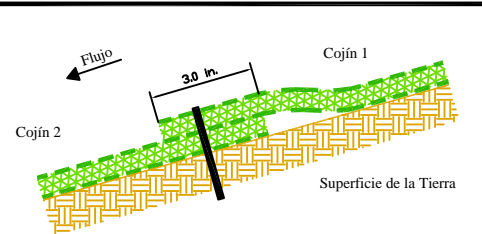


Figura B - Vista de Perfil

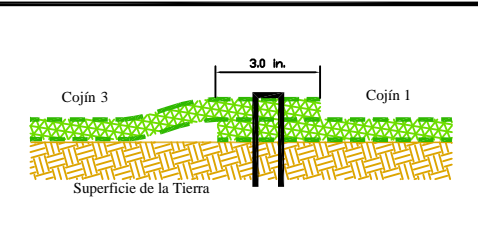
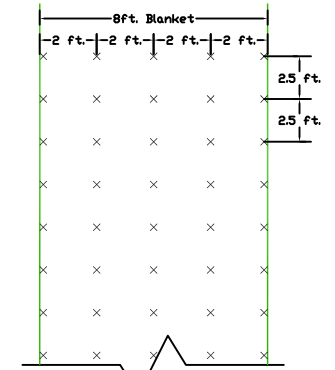


Figura C - Corte de Vista Transversal

Aplicación del Producto/Especificaciones de Equivalencia

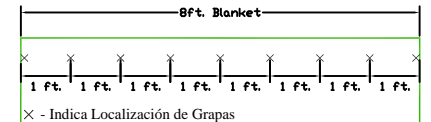
Excel CS-3 All Natural is produced by Western Excelsior and consists of an extended term Rolled Erosion Control Product (RECP) comprised of a coconut/straw blend matrix mechanically (stitch) bound between two, biodegradable jute/scrims nets (top and bottom). The expected longevity of Excel CS-3 All Natural is approximately 24 months (actual longevity dependent on field and climatic conditions). Excel CS-3 All Natural is manufactured to include physical properties sufficient to provide the intended longevity and performance. Product specifications may be found on document WE_EXCEL_CS3AN_SPEC and performance information may be found on document WE_EXCEL_CS3AN_PERF. All documents are available from Western Excelsior Technical Support or www.westernexcelsior.com. Additional to above, equivalent products to Excel CS-3 All Natural must meet identical criteria as Excel CS-3 All Natural as follows:

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2. Sufficient tensile strength, thickness and coverage to maintain integrity during installation and ensure material performance.
3. Listing within AASHTO NTPEP database.
4. Cumple con especificación ECTC para productos de categoría 3B.



× - Indica Localización de Grapas

Figura D - Vista del Plano



× - Indica Localización de Grapas

Figura E - Vista del Plano

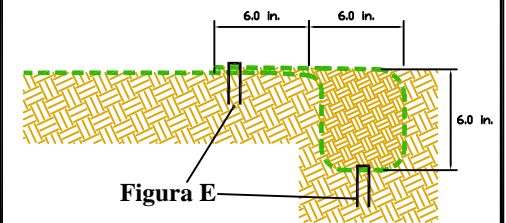


Figura F - Vista de Perfil

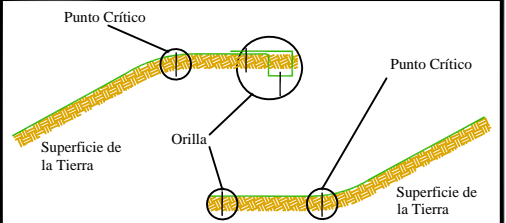


Figura G - Sujeción de Puntos Críticos



Instalación en Canal

Instrucciones EXCEL CS-3™

All Natural

* El Dibujo No Está a Escala Se.

Paso 1 - Preparación del Lugar

Prepare el lugar según el perfil del diseño y de la pendiente. Remueva el escombros, piedras, y terrones, etc. La superficie de la tierra debe estar lisa antes de la instalación para asegurar que el cojín permanezca en contacto con la pendiente.

Paso 2 - Semilla

El sembrado de la semilla en el lugar se debe hacer de acuerdo a los requisitos del diseño o a los requisitos locales y estatales, según sea necesario.

Paso 3 - Selección de Grapas

Lo mínimo que se debe usar son grapas de calibre 11, de 6 in. de largo y 1 in. de corona para sujetar el cojín a la superficie de la tierra. La instalación en tierra rocosa, arenosa o suelta puede requerir grapas más largas.

Paso 4 - Excave Zanja para Anclaje y Sujete el Cojín

Excave una zanja a lo largo de la parte superior de las pendientes de los lados del canal y la orilla de arriba del canal para sujetar las orillas del cojín. La zanja debe correr a lo largo y ancho de la instalación, tener 6 in. de ancho y 6 in. de profundidad. Engrape el cojín a lo largo del fondo de la zanja; llénela con tierra compactada, empalme el cojín hacia la parte inferior de la pendiente y sujételo con una hilera de grapas (Vea las Figuras A, E y F).

Paso 5 - Sujete el Cuerpo del Cojín

Desenrolle el cojín hacia abajo desde la zanja de anclaje. Engrape el cuerpo del cojín siguiendo el patrón que se muestra en la Figura D. Deje la punta del cojín sin engrapar para que lo pueda empalmar como se muestra en la Figura B. Coloque el cojín que baja por debajo del de arriba para formar un patrón como de tejas. Engrape las uniones como se muestra en la figura E. Sujete el cojín de bajada con el patrón de engrapado que se muestra en la Figura D. El patrón de engrapado de la Figura D refleja el mínimo de grapas que se debe usar. Se pueden requerir más grapas para asegurar que el cojín quede sujetado suficientemente para resistir podadoras y tráfico a pie y para asegurar que el cojín permanezca en contacto con la superficie de la tierra en toda el área. Además, los puntos críticos requieren grapas adicionales. Los puntos críticos están identificados en la Figura G.

Paso 6 - Continúe a lo largo de la Pendiente - Termine la Instalación

Empalme los cojines adyacentes como se muestra en la Figura C y repita el Paso 5. Sujete la parte inferior de la pendiente usando el patrón de grapas que se muestra en la Figura E. Sujete las orillas de la instalación engrapando a intervalos de 1.5' a lo largo de la orilla.

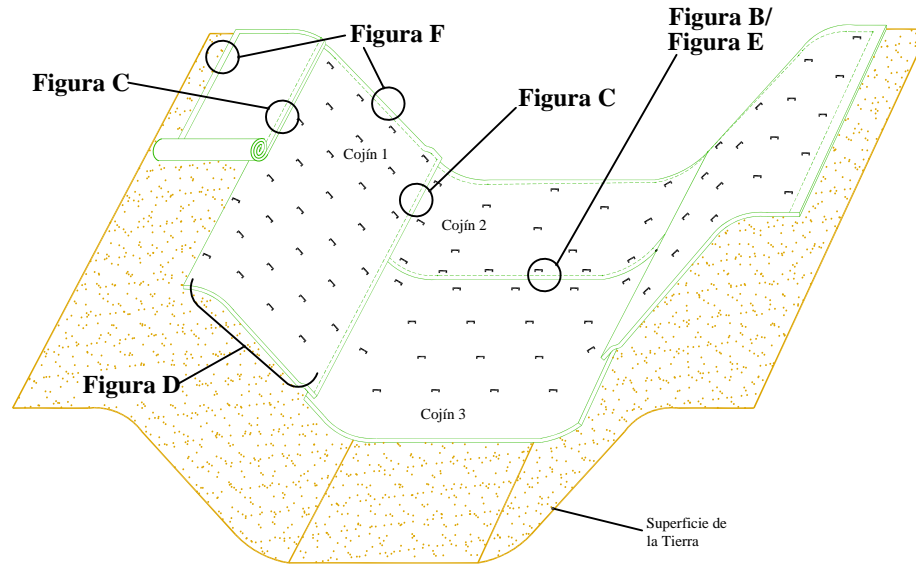


Figura A

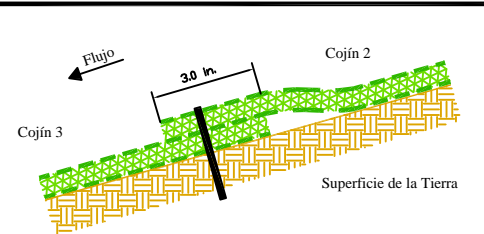


Figura B - Vista de Perfil

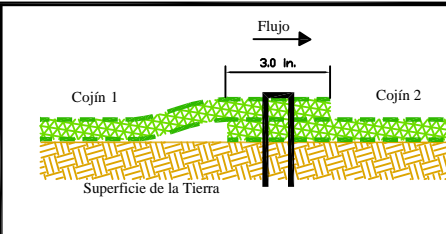
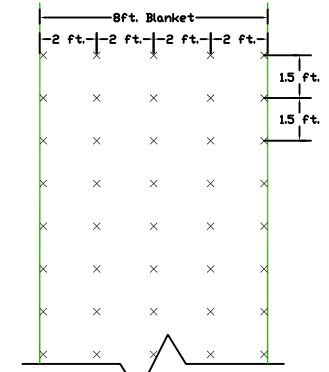


Figura C - Corte de Vista Transversal

Aplicación del Producto/Especificaciones de Equivalencia

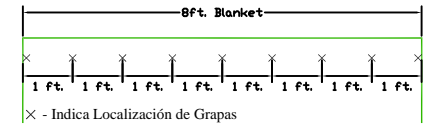
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3. Listing within AASHTO NTPEP database.
4. Cumple con especificación ECTC para productos de categoría 3B.



× - Indica Localización de Grapas

Figura D - Vista del Plano



× - Indica Localización de Grapas

Figura E - Vista del Plano

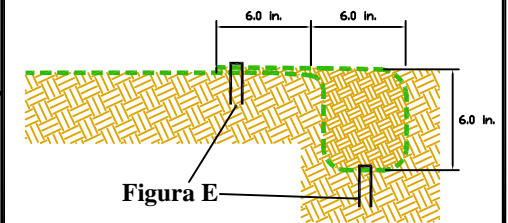


Figura E

Figura F - Vista de Perfil

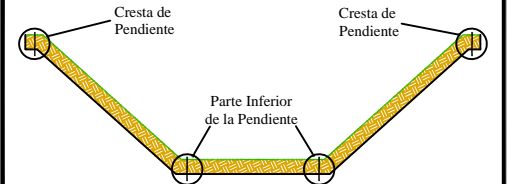


Figura G - Sujeción de Puntos Críticos