

I-70 COVER AND SWANSEA ELEMENTARY SCHOOL OUTDOOR AREAS CONCEPTUAL MASTER PLAN EXHIBIT

The I-70 Cover Public Space between Clayton and Columbine Street is in some ways the cornerstone of the I-70 reconstruction effort. Adjoining the schoolyard of Swansea Elementary, this new 8 acre (approximately 4 over structure) will serve as a central gathering hub for the community as well as connect over the highway forming a strong north-south connection. The open space and its interface with the surrounding streets and neighborhoods should be pedestrian in scale and work towards building a strong sense of place within the Elyria Swansea Neighborhood. As highlighted in the Elyria Swansea Neighborhood Plan as well as the I-70 East EIS this cover should serve the surrounding community as a critical new neighborhood public space.

This document provides a vision for the space in both program and character that has been derived from community participation as well as laying out key technical considerations that must be maintained through completion of the space. This document is a draft of the highway cover and Swansea Elementary School plan. Further coordination will occur potentially resulting in modifications to the plan.

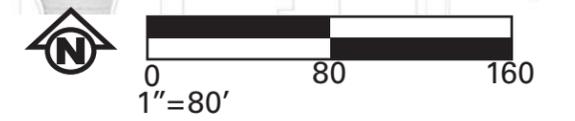
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OVERALL SITE PLAN



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INTRODUCTION

LEGEND

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The site plan for the I-70 East Highway Cover is comprised of two planning areas. While each is considered individually, the two must be designed holistically to ensure compatibility. Planning Area 1 includes all outdoor areas directly related to the Swansea Elementary School functions, and include parking and drop-off areas and play court and playground space. It is expected that the Developer will closely follow the site plan and design narrative for Planning Area 1, as careful coordination with Swansea Elementary School and Denver Public Schools has identified programmatic and functional relationships that are expected to be maintained as design progresses. Planning Area 2 includes the remainder of the Cover open space within the project’s limit of work. It is expected that the Developer will consider certain aspects of the site plan and design narrative as prescriptive (including overall site organization, circulation, program elements, etc.) and others as descriptive, with opportunity for the Developer to provide alternative design strategies.

The following narrative describes the design intent for each of the planning areas and reference the overall site plan included in this document.

PROGRAM ELEMENT REQUIREMENTS

Planning Area 1 – Swansea Elementary School

Planning Area 1 includes elements related to the outdoor functions of Swansea Elementary School. Included in this planning area are facilities dedicated to school drop-off and parking on the east side of the site and playground, blacktop and learning landscape uses on the southern portion of the planning area. Following is a detailed summary of identified program elements that are included in Planning Area 1:

- ① **School Parking and Drop-off:** A new parking lot will be constructed for use by Swansea Elementary School staff and visitors to be accessed from 47th Street and to exit to both 47th Street (to the north) and Thompson Court (to the southeast). This parking lot and drop-off facility is to accommodate the following:
 - A minimum of 68 parking spaces along with a separated drop-off lane accommodating at least 10 temporary kiss-n-go spaces.
 - Adjacent to the drop-off lane to the west, a sidewalk (minimum 14’ in width) is to be provided for north-south pedestrian movements. The south connection of this walk (adjacent to the school playground areas) is to include trees in tree grates in order to provide shade along the walk.
 - The parking lot is to incorporate landscaped islands with shade trees and groundcovers; a minimum of 24 trees is to be included within the parking lot/drop-off area footprint.
 - A visual screen of at least 4’ in height is to be provided along the east limits of the Planning Area to provide a buffer between the parking lot and adjacent residences.

- ② **Play Courts and Playground:** A new blacktop and playground area is to be constructed to the south and southeast of the existing school building. Program elements to be provided within this area are play courts, primary playground, intermediate playground, a gathering space, shade structures and planting areas (natural habitat). The following are minimum criteria that each of these elements is to achieve, following Denver Public Schools (DPS) standards:

- Play Courts: a minimum of 19,400 sf is to be provided south of the school building and generally in the center of the play court and playground program area to include: one (1) full-size basketball court and associated goals oriented north-south with two integral half-court courts and associated goals in east-west orientation; three (3) tetherball areas; three (3) four-square areas; two (2) hop-scotch areas; and a walking loop. The surface treatment of play court areas is to be integrally-colored asphalt with a thematic design expression.
- Primary Playground: a minimum of 6,500 sf is to be provided on the eastern portion of the play court and playground program area to include: a raised landform on the east portion of the site to incorporate slides, climbing facilities and adventure play functions; and a minimum of 6 swings. The surface treatment of play court areas should include a combination of materials, with play tiles being the predominant material and supplemented with play mulch, artificial turf and other natural materials.
- Intermediate Playground: a minimum of 4,000 sf is to be provided at the south-central portion of the play court and playground program area to include: a play structure incorporating

slides, climbing apparatus, tower elements and other common play structure elements; a minimum of two (2) swings; and an intermediate age-appropriate adventure play area. The surface treatment of play court areas should include a combination of materials, with play tiles being the predominant material and supplemented with play mulch, artificial turf and other natural materials.

- Gathering Space: a minimum of 2,500 sf is to be provided on the western portion of the play court and playground program area to include seating and instructional area for outdoor classroom use. The surface treatment of the gathering space should be crusher fines or an alternative fine organic product.
- Shade Structures: a minimum of two (2) shade structures of at least 20' x 20' each is to be located within the play court and playground program area; these shade structures may serve as gateway markers at or near entry points to the program area. Shade structures are to be constructed of enduring materials and are to be artfully detailed.
- Planting Areas: a minimum of 1,500 sf of planted, natural landscapes are to be dispersed at the periphery of the play court and playground program area. These areas should generally be raised to a seating-level height and should be contained by concrete or stone seat walls. Groundcover, perennial and shrub plantings are to be used to cover the planting areas, and deciduous trees are to be provided to shade a minimum of 75% of planting areas at maturity.

③ Security Fencing: At the perimeter of the play courts and playground space, a continuous fence is to be provided to contain the school's outdoor space. This fence is to contain a minimum of two (2) lockable gates – one at the south-central portion of the play court and playground space with access to the multi-purpose field in Planning Area 2, and another at the north of the space near the relocated school entrance. The design of the fence is to meet the following requirements:

- The fence is to range between a minimum of 4' in height, to a maximum height of 6'. The fence is to be designed to vary in height to incorporate an artful and playful appearance, and fencing materials are to incorporate a brightly-colored powdercoat finish.
- The fence is to be designed with minimal visible horizontal members in order to prevent scaling of the fence. To the extent possible, visible horizontal members should occur only on gates.
- Gate openings are to be broad (minimum of 15' in width) in order to provide a welcoming gateway to the school grounds when not in a closed position. Gates should be designed to be consistent with the design of the fencing. Given the width of gate openings, sliding gates are required.

Planning Area 2 – I-70 Cover Open Space

Planning Area 2 includes community-oriented program elements and features determined and organized through an active public involvement process. The elements included in the I-70 Cover Open Space include a Columbine Street gardens, multi-purpose field, community gateway plaza, interactive water feature, tot lot and play hill, amphitheater and open lawn, court sports plaza, 46th Avenue promenade, Columbine Street and Clayton Street cover extensions, garden areas and circulation paths. In addition to the program elements listed, additional expectations for the cover open space design include shade coverage and site lighting strategies. Following is a detailed summary of identified program elements and expectations that are included in Planning Area 2:

④ Columbine Street Gardens: At the western edge of the highway cover (on the east side of Columbine Street), the Columbine Street gardens provide a welcoming entrance to the cover open space. This garden area is to include the following:

- A combination of raised and at-grade planting areas within a pedestrian plaza space. Planting materials should reflect the native Colorado landscape, and are to include a mix of groundcovers, perennials, evergreen and deciduous shrubs and deciduous trees that provide visual interest across all seasons.
- Raised garden areas are to be contained by concrete or stone seat walls, and at-grade garden areas are to incorporate a band of similar treatment to provide a paving transition between planting areas and pedestrian circulation space.
- At the intersection of 46th Avenue and Columbine Street, a welcoming entry threshold is to be provided that serves as a gateway to the cover open spaces from the southwest.
- The Columbine Street streetscape is to incorporate a 5'-wide paved area adjacent to on-street parking that allows for loading and unloading of pedestrians and any personal effects (such as coolers or tables) that they bring to the cover park.

⑤ Multi-Purpose Field: The multi-purpose field is intended to meet the recreation needs of Swansea Elementary School during school hours and serve as a functional community space the remainder of the time. The design of the space must respect all user groups. An east-west orientation of the field is purposeful in order to provide east-west pedestrian circulation on both the north

PROGRAM ELEMENT REQUIREMENTS (CONTINUED)

and south sides of the field. Accessible surfaces within the multi-purpose field will be composed of artificial turf given the maintenance costs associated with maintaining an active playing surface. The following are expectations within the multi-purpose field area:

- The composition of accessible recreation areas within the multi-purpose field area should incorporate proven recent or emerging artificial turf technologies that reduce the heat island effect normally associated with artificial turf. This may include artificial turf applications that incorporate organic turf seed mixes in the design.
- While the majority of the multi-purpose field space should be graded between 0.5% and 1.0% in order to accommodate athletic activities, the western portion of the space should be artificially graded to provide a play hill and raised buffer from Columbine Street.
- Overall grading of the multi-purpose field space is to provide a vertical transition between adjacent planned spaces, including the Columbine Street garden, the 46th Avenue promenade, the community gateway plaza and the Swansea Elementary School playground area. These transitions are to provide seat wall or broad step features that allow for the comfortable viewing of recreation and/or athletic activities.
- Landscaped garden areas are to be provided at a minimum of 50% of the multi-purpose field perimeter to provide a transition between the field and adjacent areas and to provide shaded areas adjacent to the field. These garden areas are to incorporate a combination of groundcover, perennial,

shrub and deciduous tree plantings that reflect the native Colorado landscape.

- A fence is to be located at the perimeter of the multi-purpose field to define the boundary of the facility during school hours. The fence should relate in design to the school playground fence, maintaining the artful expression. The fence should vary in height between 42" and 5'.
- The fence is to incorporate generous, un-gated openings adjacent to the 46th Avenue promenade and community gateway plaza to encourage community use of the space outside of school hours. In order to define the boundary of the usable space for students during school hours, vertical separation of the multi-purpose field and adjacent areas is to occur through the use of broad steps or other spatial-defining features.

6 Community Gateway Plaza: Along the extension Thompson Court from the south of the cover, a community gateway plaza is to be constructed to provide a visual and functional community hub within the cover open space. This plaza is to incorporate artful and community-inspired paving patterns, ample seating opportunities, an iconic pavilion structure and flexible space for multiple functions. The following are expectations within the community gateway plaza:

- The ground plane of the plaza area is to be generally unencumbered by fixed amenities in order to accommodate varied sizes of events. Fixed seating and landscaped areas are acceptable at locations that are not intended to serve as informal circulation space and are to be structured to inform the user of their function.

- Shade is pertinent to the design of the space, and is to include a combination of manufactured shade and natural shade. An iconic pavilion structure at the center of the space is intended to serve a number of purposes, including a comfortable shaded area during non-programmed times and a staging area during programmed events within the plaza or on the adjacent multi-purpose field and amphitheater areas. The pavilion structure is to be constructed of enduring materials and is to be artfully detailed. Naturally-shaded areas are to be located outside of the pavilion structure to accommodate seating areas with tree shading.

- The community gateway plaza is to incorporate a diverse combination of seating areas to accommodate multi-generational users. Seating arrangements should be thoughtfully considered in order to provide comfortable seating options while maintaining flexibility of the plaza for programmed events.

7 Interactive Water Feature: An interactive water feature (or splash pad) is to be constructed to the north of the community gateway plaza. This location provides a visual and active northern edge to the cover open space along the Thompson Court axis from the south, and is intended to be a community destination. This feature is to incorporate the following:

- Open edged surface treatments are required so as to be accessible to all users and usable during times that the water is turned off; therefore, standing water or contained pools are not to be considered.
- Paving surfaces of the water feature should differ from surrounding areas in materiality and/or color.

- Consideration is to be given to four-season use of the water feature, either through active fountain use or alternative programming that may occur when the water is turned off.
- A restroom structure with running water and plumbing is to be constructed within 150' of the interactive water feature. The facility is to provide separate facilities for males and females with a minimum of (1) toilet, (1) sink and (1) changing table for each. The design of this facility is to be consistent with the overall character of cover architectural elements.

8 Tot Lot and Play Hill: Directly to the east of the interactive water feature, a tot lot (or toddler-aged playground) and associated play hill are to be constructed. These features are intended to provide play space for non-school-aged children while school is in session, but should also be designed so that they are entertaining to all age groups. The following elements are to be incorporated into the tot lot and play hill area:

- The tot lot and play hill are to be largely contained by vertical features or planting areas to discourage small children from wandering out of the space unsupervised. Raised planting areas to the north and east define these edges, while broad concrete steps define the southern edge of the space.
- The broad concrete steps at the south of the space also serve as the backdrop for the play hill. This play hill is intended to be planted with irrigated turf and sloped to provide a play surface adjacent to the tot lot playground.

PROGRAM ELEMENT REQUIREMENTS (CONTINUED)

- The tot lot playground is to incorporate a mix of individual and group play structures in a central space, with adventure play materials (such as scalable boulders) as a transition to the play hill to the east.
- The surface treatment of the tot lot playground is to primarily utilize play tiles, with a small portion of the space dedicated to a sand play area.
- Comfortable and diverse seating areas are to be integral to the design of the space – particularly at the edges – offering opportunities for both congregation and casual observation. Broad steps, seat walls, fixed benches and picnic tables are all to be considered.
- Shade is to be carefully considered within the space to provide a comfortable environment. Within planting areas, deciduous trees are to be located to provide shade for both play and seating areas. Shade structures are expected to be incorporated at picnic areas.

9 Amphitheater and Open Lawn: Directly to the east of the community gateway plaza, an amphitheater and open lawn area are to be constructed to provide both small event space and an inviting, casual-use lawn area. The following are design expectations for the amphitheater:

- In order to provide a comfortable event environment, the amphitheater is to incorporate a land form that gently slopes up from the transition to the community gateway plaza east to the adjacent court space. Broad steps at the east limits of the space are intended to artificially hold the raised grade and provide a transition to the court space.

- Irrigated turf grass is to be the primary surface treatment within the amphitheater and open lawn.
- Fixed, grouped seating areas are to be provided at the southern perimeter of the space, and are to be defined by raised concrete or stone walls to hold the surrounding grade of the lawn. Surface materials within these seating areas are to use crusher fines or similar fine organic materials.
- Shade trees are to be located primarily at the perimeter of the amphitheater, with limited opportunities for thoughtfully-placed shade trees within the open lawn area.

10 Court Sports Plaza: The court sports plaza is located at the east end of the cover open space, between the amphitheater and Clayton Street. This multi-functional plaza is intended to support a range of court sport uses as well as additional activity zones. The design of the space should showcase these active uses and serve as a focal point at the east end of the cover. The following are design expectations for the court sports plaza:

- The court sports plaza is to be designed to include multiple court activities, including basketball, futsal and handball courts. The space is to be organized such that multiple activities may occur at the same time. Additional active elements such as ping-pong tables are also to be considered, as well as fixed seating areas.
- The surface of the court sports plaza is to be integrally-colored asphalt paving with striping to designate different court areas. The surface is expected to be colorful and inviting while also reducing the heat island effect in the area.

- A metal fence with gracious, non-gated openings is to be located at the perimeter of the court sports plaza in order to contain balls. The fence should be a minimum of 8' in height in order, and is to incorporate bright colors in an artistic way – galvanized chain link is to be avoided. Fence openings at the northeast and southeast should be gracious and of appropriate width to be inviting.
- At the western transition to the amphitheater, wide concrete steps are to be constructed to provide informal seating areas along the perimeter of the plaza.
- A pavilion shade structure is to be provided at the west and southwest perimeter of the court sports plaza to provide shade over the concrete steps as well as to create a sense of scale for the space. This pavilion structure is to be constructed of enduring materials and is to be artfully detailed.
- At the perimeter of the court sports plaza (outside of the fenced area), bike parking is to be incorporated to accommodate a minimum of 10 bikes.
- North of the court sports plaza, a row of trees with seating beneath is to be provided as a transition to the 46th Avenue (North) extension west of Clayton Street.
- East of the court sport plaza, a sidewalk of a minimum of 8' in width is expected in order to provide north-south connectivity. The remaining space between the Clayton Street curb is to incorporate a tree lawn/planting area with a row of street trees, with a minimum width of 8'.

11 46th Avenue Promenade: The treatment of the 46th Avenue frontage and streetscape is to provide a welcoming transition from the neighborhoods to the south to the cover open space. Because 46th Avenue is the only east-west street that passes by the park, efforts are to be made to reduce the impact of vehicular traffic on the experience of cover open space users. The 46th Avenue promenade provides a generous transition between the street and the functional elements of the cover open space. The following elements are to be included in the design of the 46th Avenue promenade:

- At the street, on-street parking is to be provided along the cover edge with curb extension at intersections with all connecting streets in order to reduce the crossing distance.
- At the back of curb, a paved concrete zone of 5' is to be provided to allow for a comfortable step-out area for visitors in vehicles as well as loading area for coolers, tables and other elements that visitors may bring.
- West of Thompson Court and adjacent to paved step-out area, a regular cadence of raised planting areas with street trees are to be incorporated to serve as a transition between the street functions to the south and the pedestrian facilities to the north. Breaks of at least 8' are to be provided between planting areas to allow for pedestrian movement between on-street parking and the pedestrian facilities to the north. Fixed seating elements are to be incorporated into the northern side of the raised planters in order to provide comfortable respite for cover open space users.
- West of Thompson Court and to the north of the planting area, a sidewalk of at least 12' in width is to be provided

PROGRAM ELEMENT REQUIREMENTS (CONTINUED)

to provide comfortable east-west connectivity across the site for a range of pedestrian users. There is to be a variation of surface materials to include concrete and unit pavers in order to create a rich pedestrian environment.

- West of Thompson Court and to the north of the paved sidewalk area and south of the multi-purpose field, an additional permeable surface is included to provide seating elements and an environment for tree planting. The surface of this zone is to be crusher fines or a similar fine organic material, and trees are to be located to provide a comfortable shaded area.
- The treatment of the 46th Avenue promenade east of Thompson Court it to be more open to informal and undirected pedestrian movement. While a consistent tree canopy is expected in this area, trees should be surrounded by permeable paving systems in order for pedestrian movement beneath the canopy. The width of paved surfaces between the 46th Avenue curb and amphitheater and court sports plaza may vary to accommodate various pedestrian routes, with a minimum width of 21'.
- At the intersection of 46th Avenue and Clayton Street, a welcoming entry threshold is to be provided that serves as a gateway to the cover open space from the southeast.

12 **Columbine Street and Clayton Street Cover Extensions:** Cover extensions are to be provided on the west side of Columbine Street and the east side of Clayton Street in order to provide a comfortable pedestrian environment at the western and eastern limits of the highway cover. These cover extensions are to provide continuous north-south pedestrian connections across the cover while

also providing features that encourage occupation of the spaces. The following describes the expectations for these cover extensions:

- The north section of the Columbine Street cover extension is intended to create a usable plaza space that encourages pedestrians to engage with the edge of the highway cover and view the Downtown Denver and Rocky Mountain horizon. At the north of the extension, a plaza space is to be provided that integrates seating, planting and warm paving features. A viewing area at the edge of the cover is to be integrated into the site to allow people to view the horizon, with a solid transparent and semi-transparent vertical element provided as both a safety barrier and artistic icon.
- The southern section of the Columbine Street cover extension includes a raised landscape buffer adjacent to the cover edge to provide a comfortable transition between the pedestrian walkway and the limits of the cover. This landscape buffer is to include shade trees and native, irrigated landscape materials to provide four-season interest.
- A mechanical building servicing jet fans within the bridge structure is to be located within the landscaped buffer at the south of the Columbine Street cover extension. The visual profile of this structure is to be minimized using plantings to create a screen and quality building materials.
- At the back of curb on Columbine Street, a concrete sidewalk with a minimum width of 10' is to be provided for north-south pedestrian movement.
- The southern section of the Clayton Street cover extension is intended

to create a neighborhood-themed gateway to the highway cover. A plaza area with unit pavers as the surface treatment and fixed seating elements is expected to serve as the foreground for an artistic mural wall. This wall is to be gracefully designed in form, with community input into the artistic expression.

- The northern section of the Clayton Street cover extension includes a raised landscape buffer adjacent to the cover edge to provide a comfortable transition between the pedestrian walkway and the limits of the cover. This landscape buffer is to include shade trees and native, irrigated landscape materials to provide four-season interest.
- A mechanical building servicing jet fans within the bridge structure is to be located within the landscaped buffer at the north of the Clayton Street cover extension. The visual profile of this structure is to be minimized using plantings to create a screen and quality building materials.
- The streetscape treatment at the Clayton Street cover extension is to include a tree lawn/planting zone of 8' in width with a detached concrete sidewalk of 12' in width. The tree lawn/ planting zone is to incorporate street trees to provide shade.

GENERAL SITE REQUIREMENTS

Garden Areas: At transitions between the program areas identified herein, garden areas are to be incorporated to provide visual interest to the cover environment. The treatment of these areas is to vary according to their adjacent uses. Efforts are to be made to use planting materials with low-water needs while incorporating varied color, scale and density. Ornamental trees are to be located within these garden areas to provide scale and visual interest, and the design of the site plan is to incorporate a mix of both at-grade and raised planting areas. Thought is to be given to ease of maintenance in these garden areas.

Circulation Paths: The highway cover design is to be developed to incorporate continuous sidewalk connections across the cover in both north-south and east-west orientation while also providing a number of loop connections for daily users. Circulation paths are to incorporate with directional walkways (such as the 46th Avenue promenade) and meandering pathways that connect the different program elements of the cover design. Pathways are to be of comfortable width and are to be scaled to encourage both ease of movement and interaction of users.

Shade Coverage: The provision of shade is one of the most important aspects of the design of the highway cover. The cover open space is expected to serve as a social and recreational hub for the surrounding communities and is expected to appeal to all generations. Shade not only provides comfort to those using or walking through the site, but also adds a vertical scale to the cover open space that is welcoming and inviting. Shade may also help to organize activity areas by providing intentional shaded area at locations that congregation, casual rest and other activities may be encouraged.

Shade may be provided through both natural (tree canopy) and manufactured (shade structures and pavilions) approaches. Tree canopies are the preferred approach to

providing shade along pedestrian walkways and cover open space edges as well as informal areas of rest. Shade structures and/or pavilions may be used at areas that are intended for active use or congregation.

Site Lighting: Lighting of the cover open space is to be considered integral to the overall design of the highway cover. Lighting serves multiple functions: it provides a sense of safety and security during nighttime hours, reduces nuisance activities within park spaces, identifies important nodes or activity areas, and serves as a draw into the space. The lighting of the cover open space is to incorporate lighting elements of different scales, from street lighting at boundary streets, to pedestrian-scale fixtures along circulation routes, to accent lighting at program areas. The lighting of the cover is to discourage “hot spots” or lighting conflicts that impair the ability of park users to see to or through the cover space.