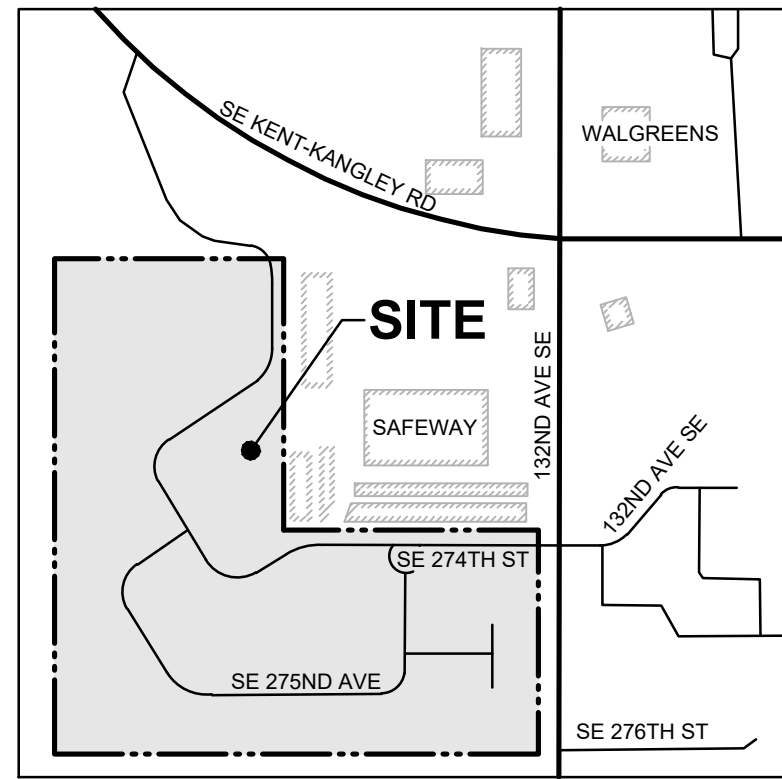
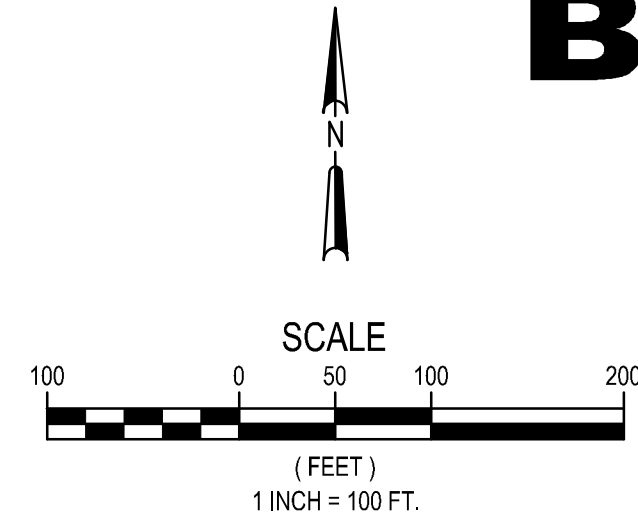


KING COUNTY HOUSING AUTHORITY

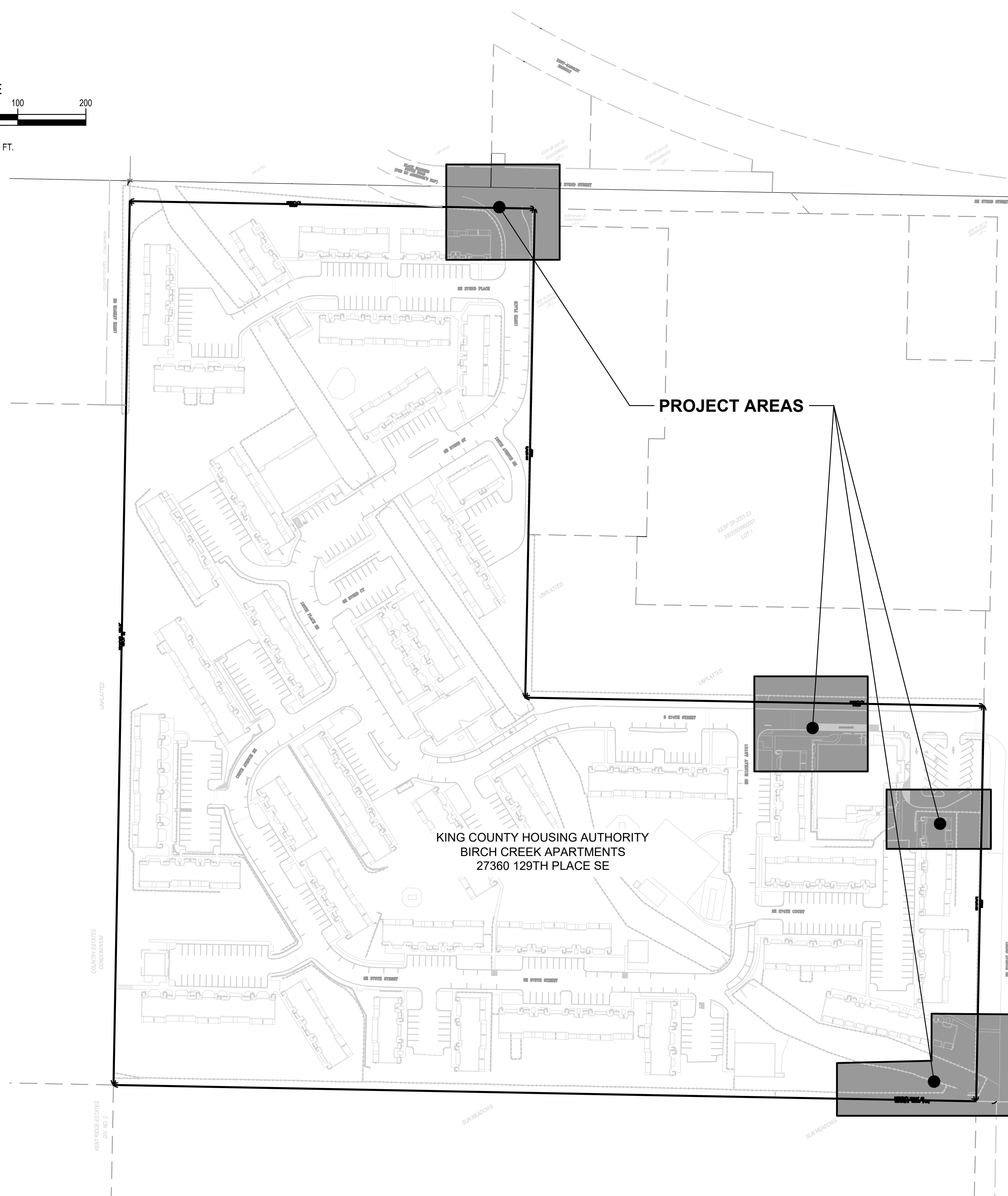
BIRCH CREEK FENCING PLAN



VICINITY MAP
NOT TO SCALE

LEGEND

PROPOSED	
	SAWCUT LINE
	PEDESTRIAN ACCESS GATE PER DETAIL B OR D, SHEET 7
	6' TALL METAL PICKET FENCE PER DETAIL A, SHEET 7
	6' TALL METAL SOLID PANELS PER DETAIL F, SHEET 8
	CONCRETE SURFACE REPAIR
	ASPHALT SURFACE REPAIR
EXISTING	
(M)	MEASURED
(C)	CALCULATED
(PLAT)	PLAT OF SUN MEADOWS
(R1)	SURVEY RECORDED IN VOLUME 152/P 277
	FOUND REBAR
	SANITARY SEWER MANHOLE (SSMH)
	STORM DRAIN MANHOLE (SDMH)
	STORM DRAIN CATCH BASIN (CB)
	ELECTRIC METER
	WATER METER
	WATER VALVE
	IRRIGATION CONTROL VALVE (ICV)
	FIRE HYDRANT
	TELEPHONE RISER
	INVERT
	WOOD POLE
	WOOD POLE W/LIGHT
	TREE, CONIFEROUS
	TREE, DECIDUOUS
	ROCK WALL
	PRIVACY FENCE, WOOD 7" WIDE
	FENCE, CHAIN-LINK
	BUILDING LINE
	RIGHT-OF-WAY
	PROPERTY LINE
	SECTION SUBDIVISION LINE
	ADJOINING PROPERTY LINE
	EASEMENT LINE
	SEWER
	STORM DRAIN
	GAS
	WATER



KING COUNTY HOUSING AUTHORITY
BIRCH CREEK APARTMENTS
27360 129TH PLACE SE

PROJECT QUANTITIES*

ITEMS		
METAL PICKET FENCING	325 LF	
METAL SOLID PANELS	125 LF	
3' WIDE PEDESTRIAN GATE	1	
5' WIDE PEDESTRIAN GATE	4	
30' DOUBLE SWING VEHICLE GATE W/ MOTORS	1	

*ALL QUANTITIES SHOWN ARE ASSUMED AND FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND QUANTITIES

SHEET INDEX

1	COVER SHEET
2 - 3	TESC/DEMO
4 - 6	FENCING PLANS
7 - 8	FENCE DETAILS

PROJECT INFORMATION

OWNER: KING COUNTY HOUSING AUTHORITY
700 ANDOVER PARK WEST, SUITE C
SEATTLE, WA 98188
CONTACT: CARL FRANKEL
PHONE: (206) 574-1249

ENGINEER: DAVID EVANS AND ASSOCIATES, INC.
20300 WOODINVILLE SNOHOMISH RD NE, SUITE A
WOODINVILLE, WA 98072
CONTACT: TYSON WENTZ
PHONE: (425) 415-2000

SURVEYOR: CTS ENGINEERS
1412 112TH AVENUE NE, SUITE 102
BELLEVUE, WA 98004
PHONE: (425) 455-7622

NAME: KING COUNTY HOUSING AUTHORITY - BIRCH CREEK APARTMENTS

SITE ADDRESS: 27360 129TH PLACE SE
KENT, WA 98030

TAX PARCEL NO.: 3322059001

ZONING: THE PROPERTY IS ZONED "MR-G". GARDEN DENSITY MULTIFAMILY

ZONING AGENCY: CITY OF KENT, WASHINGTON
220 FOURTH AVE S, KENT, WA 98032
TEL: (253) 856-5500

SETBACKS: CURRENT SETBACK REQUIREMENTS SUBJECT TO SITE PLAN REVIEW. CURRENT SETBACKS MAY DIFFER FROM THOSE IN EFFECT DURING DESIGN/CONSTRUCTION OF EXISTING IMPROVEMENTS.

FLOOD ZONE: THIS SITE APPEARS ON NATIONAL FLOOD INSURANCE RATE MAP NO.: 53033C1260F, AND IS SITUATED IN ZONE "X". AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN.

VERTICAL DATUM: NAVD 88 - CITY OF SEATTLE
HELD CITY OF KENT VERTICAL CONTROL POINT 967

CONTROL POINT 967 (ELEV = 365.72 FEET) IS A 1/4" STEEL PIN IN CONCRETE 0.80 FEET BELOW THE RIM OF A MONUMENT CASE AT THE INTERSECTION OF SE 278TH STREET AND 132ND AVENUE SE.

HORIZONTAL DATUM: NAD 83/91, WASHINGTON STATE PLANE GRID COORDINATES, NORTH ZONE
USED CITY OF KENT CONTROL POINTS 7286 AND 7319

GRID COORDINATE VALUES:
#7286
N 133427.7430 US SURVEY FEET
E 1310248.9610 US SURVEY FEET

#7319
N 130783.8540 US SURVEY FEET
E 1310198.3980 US SURVEY FEET

HELD GRID INSERTION POINTS. BEARING AND DISTANCES SHOWN HEREON ARE GROUND.

BASIS OF BEARING: HELD S01°05'44"W BETWEEN CITY OF KENT CONTROL POINTS 7286 AND 7319 FOR THE MONUMENTED EAST LINE OF THE NORTHEAST QUARTER OF SECTION 33, TOWNSHIP 22 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON.

BOUNDARY REFERENCES: (PLAT) - PLAT OF SUN MEADOWS RECORDED UNDER RECORDING NUMBER 198110130385, VOL. 117 / PP. 23-24, RECORDS OF KING COUNTY, WASHINGTON.

(R1) - SURVEY RECORDED UNDER RECORDING NUMBER 20020611900012, VOL. 152 / PG. 277, RECORDS OF KING COUNTY, WASHINGTON.

SURVEY RECORDED UNDER RECORDING NUMBER 7803039003, VOL. 12 / PG. 53, RECORDS OF KING COUNTY, WASHINGTON.

COUNTRY ESTATES CONDOMINIUM, FILED IN VOL. 68 OF CONDOMINIUMS, PAGES 36-39, UNDER RECORDING NUMBER 8402290798, RECORDS OF KING COUNTY, WASHINGTON.

SAFeway SHORT PLAT, RECORDED IN VOL. 152, PAGES 15-15C, OF SURVEYS, UNDER RECORDING NUMBER 200205060900001.

AREA: SITE AS SHOWN CONTAINS 1,167,443 SQ. FT / 26.8± ACRES.

PARKING SPACE COUNT: THERE ARE 526 PARKING SPACES

SUBSTRUCTURES: BURIED UTILITIES ARE SHOWN AS INDICATED ON RECORDS MAPS FURNISHED BY PUBLIC/AND OR PRIVATE AGENCIES AND VERIFIED WHERE POSSIBLE BY FEATURES LOCATED IN THE FIELD. WE ASSUME NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY.

UTILITY PROVIDERS: SANITARY SEWER, STORM DRAINAGE, WATER:
CITY OF KENT, WASHINGTON
220 Fourth Ave S, Kent, WA 98032
TEL: (253) 856-5500

POWER & GAS: PUGET SOUND ENERGY
10885 NE 4TH STREET
BELLEVUE, WA 98009
TEL.: 425-452-1234

CAUTION
LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE AND MAY NOT BE ACCURATE OR ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATION OF UTILITIES PRIOR TO PROCEEDING WITH CONSTRUCTION. YOU MUST CALL 1-800-424-5555 NOT LESS THAN TWO FULL BUSINESS DAYS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED. EXISTING UTILITIES TO BE LOCATED, PROTECTED, AND REPAIRED IN ACCORDANCE WITH RCW 19.122.

WASHINGTON

KENT

BIRCH CREEK APARTMENTS - 27360 129TH PL SE, KENT WA 98030

FENCING PLANS

KING COUNTY HOUSING AUTHORITY

COVER SHEET

DATE: BY: CK
11/30/24 TW

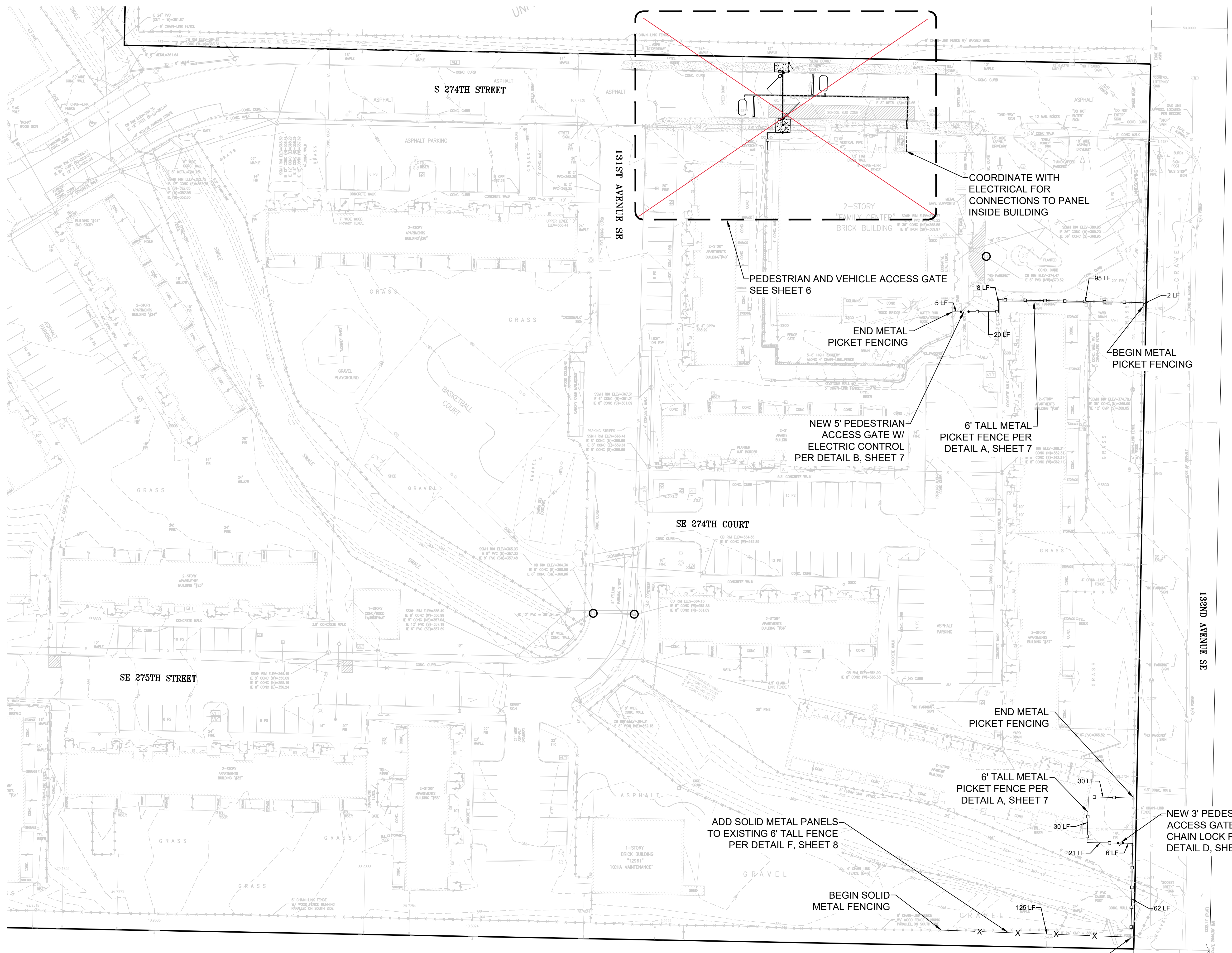
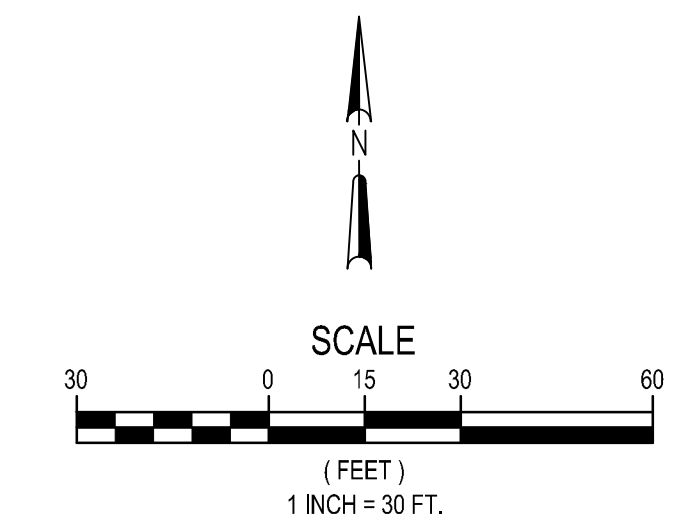
REVISION: BY: CK
11/30/24 ADD FENCING & GATE NEAR BLDG 38 TW

CHECKED BY: TW
DESIGNED BY: TW
DRAWN BY: MAR

FIRST SUBMITTAL DATE: 11/11/23

PROJECT NO.
KCHA00006067

SHEET NO.
1 of 4



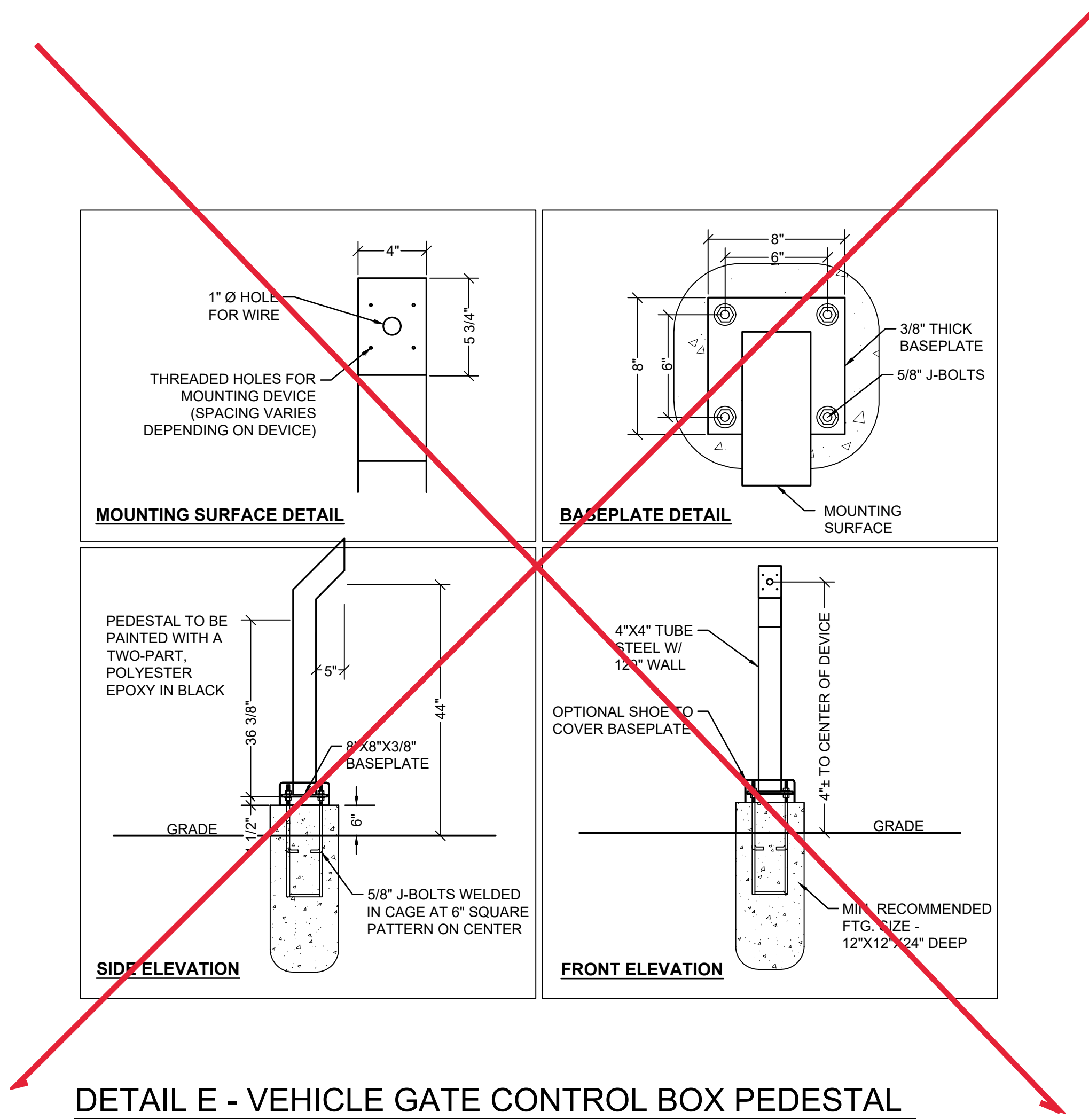
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REVIEWED BY:	DATE:	BY:	CHK:
NO. 1	1/30/24	TW	TW
ADD FENCING & GATE NEAR BLDG 38			

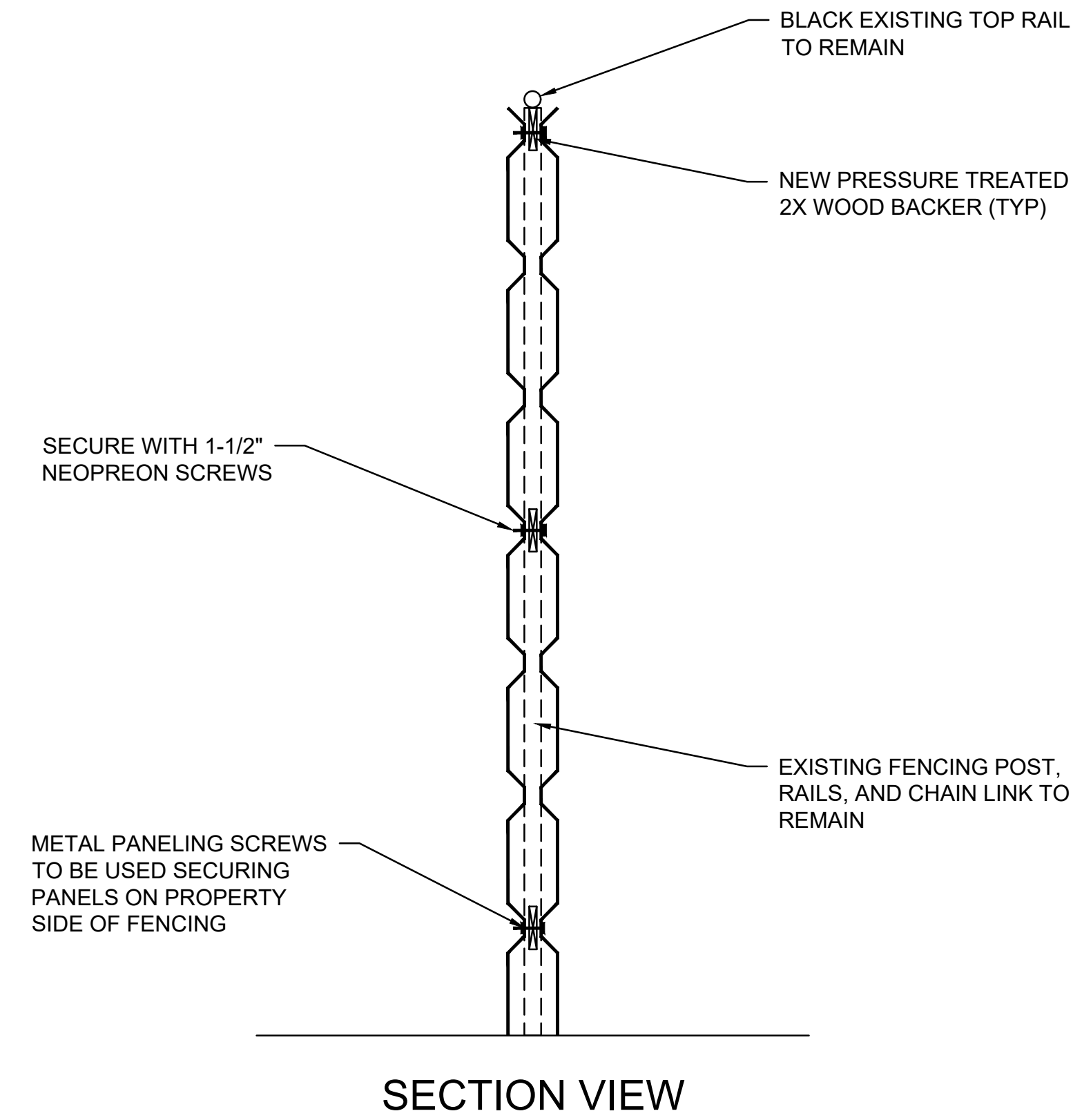
CHECKED BY: TW
 DESIGNED BY: TW
 DRAWN BY: MAR
 FIRST SUBMITTAL DATE: 11/1/23

PROJECT NO.
KCHA00006067

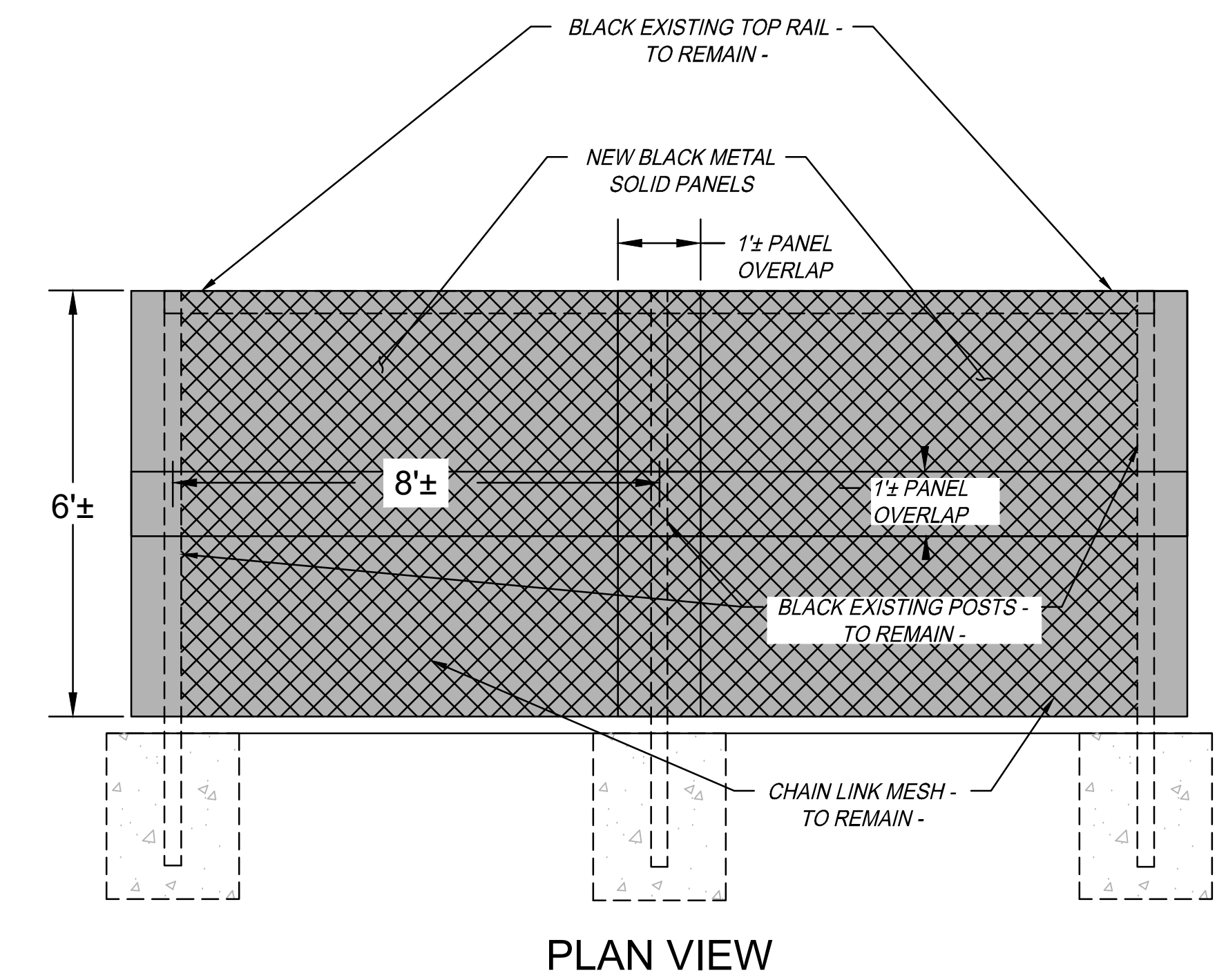
SHEET NO.



DETAIL E - VEHICLE GATE CONTROL BOX PEDESTAL
 NOT TO SCALE



DETAIL F - METAL SOLID PANELS
 NOT TO SCALE



PLAN VIEW

CAUTION
 LOCATION OF EXISTING UTILITIES SHOWN IS APPROXIMATE AND MAY NOT BE ACCURATE OR ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATION OF UTILITIES PRIOR TO PROCEEDING WITH CONSTRUCTION. YOU MUST CALL 1-800-424-5555 NOT LESS THAN TWO FULL BUSINESS DAYS BEFORE BEGINNING EXCAVATION WHERE ANY UNDERGROUND UTILITIES MAY BE LOCATED. EXISTING UTILITIES TO BE LOCATED, PROTECTED, AND REPAIRED IN ACCORDANCE WITH RCW 19.122.

Plot Date: 1/30/2024 10:56 AM
 Save Date: 1/30/2024 10:52 AM
 By: Tyson Wentz
 File: P:\KCH\KCHA00006067\0400CAD\EC\FINAL\SHEETS\SDT-F\KCHA00006067.dwg

Metal Sales Manufacturing Corporation

This specification data sheet is provided by Metal Sales Manufacturing Corporation as a technical support tool incident to the sale of its IC72-Panel, 7/8" Corrugated and PBR-Panel metal panel products. Contact Metal Sales for more information on these and other products.
 Telephone: 800.406.7387
 metalsales.us.com

Section 07 42 13 - METAL WALL PANELS

1. PRODUCT NAMES

IC72-Panel, 7/8" Corrugated and PBR-Panel metal wall panels.

2. MANUFACTURER

Metal Sales Manufacturing Corporation
 545 South 3rd Street, Suite 200
 Louisville, KY 40202
 Toll Free: 800.406.7387
 Phone: 502.855.4300
 Fax: 502.855.4200
 Web: metalsales.us.com
 E-Mail: rgage@metalsales.us.com

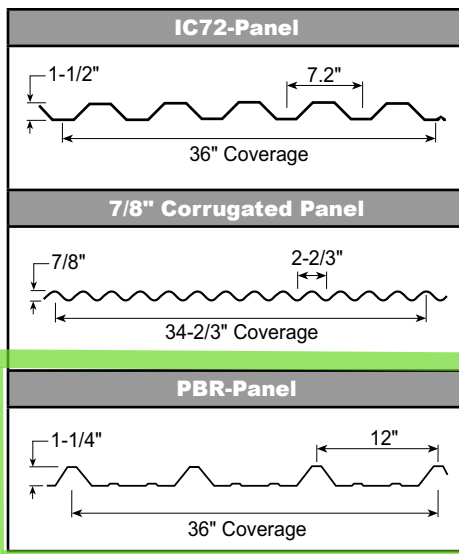
3. PRODUCT DESCRIPTION

Basic Use

For more than 55 years, Metal Sales has earned a reputation as the premier provider of metal building components and accessories. Metal Sales maintains the industry's largest professional sales and service team, supported by 21 branches located throughout the United States and offers a full line of high quality metal roof and wall panels for agricultural, commercial, architectural, industrial and residential projects of every shape and size for both new construction and retrofit applications. Metal Sales is dedicated to leading the metal building component industry, by setting new standards for operating efficiency, product design, active service management and lasting value.

Manufacturer Memberships and Affiliations

CRRC - Cool Roof Rating Council
 MCA - Metal Construction Association
 CSI - Construction Specifications Institute
 NRCA - National Roofing Contractors Association
 ENERGY STAR® Partner



4. TECHNICAL DATA

Applicable Standards

- ASTM A 653 – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- ASTM A 792 – Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- ASTM A 1011 – Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
- ASTM D 2244 – Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates.
- ASTM D 4214 – Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.
- ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- ASTM E 283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
- ASTM E 331- Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.

Underwriters Laboratories (UL):

- UL 263 - Fire Tests of Building Construction and Materials.



Silicon Valley Animal Center, Milpitas, CA

Approvals:

2020 State of Florida Building Code:

- Approval 9482.1. (Applies to 7/8" Corrugated product).
- Approval 9482.4. (Applies to PBR-Panel product).

Miami-Dade County Approval: NOA 20-0331.02. (Applies to PBR-Panel product).

ICC-ES Evaluation Report: ESR-2385. (Applies to IC72-Panel product, 7/8" Corrugated product and PBR-Panel product).

Physical Properties:

Test reports are available to design professionals upon request.

Note: Industry designation for material thickness is moving away from "gauge" to decimal thickness in inches. Metal Sales recommends use of a minimum thickness requirement of 0.018-inch (0.46-mm) instead of 26 gauge, 0.0236-inch (0.60-mm) instead of 24 gauge, 0.0296-inch (0.75-mm) instead of 22 gauge, 0.0356 inch (0.904 mm) instead of 20 gauge and 0.0466 inch (1.184 mm) instead of 18 gauge. For Galvalume, specify AZ50 for painted material or AZ55 for unpainted material. For galvanized, specify G90.

Technical Properties for IC72-Panel Products:

- ▶ Panel coverage: 36 inches (914.4 mm).
- ▶ Rib Height: 1-1/2 inches (38.1 mm).
- ▶ Material: Aluminum-zinc alloy-coated or zinc-

coated steel sheet, AZ50, AZ55 or G90 coating designation, structural quality, Grade 50 or Grade 33, 0.0236-inch (0.60-mm), 0.0296-inch (0.75-mm), 0.0356 inch (0.904 mm) and 0.0466 inch (1.164 mm) minimum thickness. Not all thicknesses are produced at all branches.

- ▶ Attachment: Exposed, direct-fastened panel.
 - ▶ Application: Designed for application over open framing or solid substrate.
 - ▶ Rib Configuration: Trapezoidal.
 - ▶ Surface Finish: PVDF (Kynar 500) or Acrylic-Coated Galvalume.
 - ▶ Color: Contact Metal Sales for information on color availability.
 - ▶ Testing: Fire Resistance Rating: Complies with UL 263.
- Air Leakage: 0.0148 cfm/sq. ft. when tested according to ASTM E 283.
- Water Penetration: None at 6.24 psf when tested according to ASTM E 331.
- ▶ Approvals: Code and Testing Agency Approvals: ICC-ES Evaluation Report: ESR-2385.

Technical Properties for 7/8" Corrugated Products:

- ▶ Panel coverage: 34-2/3 inches (880.5 mm).
 - ▶ Rib Height: 7/8 inch (22.2 mm).
 - ▶ Material: Aluminum-zinc alloy-coated or zinc-coated steel sheet, AZ50, AZ55 or G90 coating designation, structural quality, Grade 50 or Grade 33, 0.018-inch (0.46-mm), 0.0236-inch (0.60-mm), 0.0296-inch (0.75-mm) or 0.0356 inch (0.904-mm) minimum thickness.
 - ▶ Attachment: Exposed, direct-fastened panel.
 - ▶ Application: Designed for application over open framing or solid substrate.
 - ▶ Rib Configuration: Sinusoidal.
 - ▶ Surface Finish: MS Colorfast45, PVDF (Kynar 500) or Acrylic-Coated Galvalume.
 - ▶ Color: Contact Metal Sales for information on color availability.
 - ▶ Testing: Fire Resistance Rating: Complies with UL 263.
- Air Leakage: 0.004 cfm/sq. ft. when tested according to ASTM E 283.
- Water Penetration: None at 12 psf when tested according to ASTM E 331.
- ▶ Approvals: Code and Testing Agency Approvals: Complies with 2020 State of Florida Building Code Approval 9482.1. ICC-ES Evaluation Report: ESR-2385.

Technical Properties for PBR-Panel Products:

- ▶ Panel coverage: 36 inches (914.4 mm).
- ▶ Rib Height: 1-1/4 inches (31.8 mm).
- ▶ Material: Aluminum-zinc alloy-coated or zinc-coated steel sheet, AZ50, AZ55 or G90 coating



Silicon Valley Animal Center, Milpitas, CA

designation, structural quality, Grade 50, 0.018-inch (0.46-mm), 0.0236-inch (0.60-mm) or 0.0296-inch (0.75-mm) minimum thickness.

- ▶ Attachment: Exposed, direct-fastened panel.
 - ▶ Application: Designed for application over open framing or solid substrate.
 - ▶ Rib Configuration: Trapezoidal.
 - ▶ Surface Finish: MS Colorfast45, PVDF (Kynar 500) or Acrylic-Coated Galvalume.
 - ▶ Color: Contact Metal Sales for information on color availability.
 - ▶ Testing: Fire Resistance Rating: Complies with UL 263.
- ▶ Approvals: Code and Testing Agency Approvals: Complies with Miami-Dade County Approval NOA 20-0331.02. Complies with 2020 State of Florida Building Code Approval: 9482.4. ICC-ES Evaluation Report: ESR-2385.

Environmental Considerations

Construction metals generally are readily recyclable at the end of their service life. The raw materials used in manufacture of metal wall panels also come from recycled sources. Pre-consumer and post-consumer recycled content varies. Consult with manufacturer for more information.

Fire Performance

Flame-Spread Index: 25 or less (Class A) or 200 (Class C).

5. INSTALLATION

Handling and Storage

Handle and store product according to Metal Sales

recommendations. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials above ground, under waterproof covering, protected from exposure to harmful weather conditions and at temperature and humidity conditions recommended by manufacturer. Provide proper ventilation of metal panel system to prevent condensation build-up between each panel and trim or flashing component. Tilt stack to drain in wet conditions. Remove strippable plastic film before storage under high-heat conditions. Store products in manufacturer's unopened packaging until just prior to installation. Exercise caution in unloading and handling metal panel system to prevent bending, warping, twisting and surface damage.

Preparation

Install furring, angles, sub-purlins, and other miscellaneous wall panel support members and anchor according to metal wall panel manufacturer's recommendations. Ensure panel support is in-plane. Limit in-plane variance to no more than a total of 1/4 inch (6mm) on 10 feet (3.05 m).

Thermal Insulation Installation

Install polyethylene vapor retarder if required. Install blanket insulation if required, in compliance with installation requirements in Division 07 Section "Thermal Insulation."



SPECIFICATION DATA

Metal Wall Panel Installation

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected. Comply with panel manufacturer's installation instructions including but not limited to special techniques, interface with other work and integration of systems. Fasten metal wall panels to supports with concealed clips at each standing-seam joint at location, spacing and using proper fasteners as recommended by panel manufacturer. Comply with installation tolerances as required.

Accessory Installation

Install accessories using techniques recommended by manufacturer and which will assure positive anchorage to building and weather tight mounting. Provide for thermal movement. Coordinate installation with flashings and other components. For Flashing and Trim, comply with performance requirements, manufacturer's written installation instructions and the SMACNA "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and install units to true level. Install work with laps, joints and seams that will be permanently watertight.

Field Quality Control

If requested by Owner, provide manufacturer's field service consisting of product use recommendations and site visits for inspection of product installation in accordance with manufacturer's instructions.

Precautions, Cleaning and Protection

Touch-up paint is used to cover and protect unexpected scratches on the paint finish that may occur during installation of panel. Touch-up paint will not weather as well or at the same rate as the original system. Test in an area that will not be noticeable. Metallic paint colors are available at an additional charge. Minor differences in color and appearance are normal and to be expected.

To minimize possible differences in appearance, an entire project should be painted at one time, from one batch of paint, using the same application equipment. Additionally, fabricated panels, flat sheet, and flashings should be oriented in the same direction.

After installation remove temporary coverings and protection of adjacent work areas. Repair or replace any installed products that have been damaged. Clean installed panels in accordance with manufacturer's instructions prior to Owner's acceptance. Remove and lawfully dispose of construction debris from Project site. Protect installed product and finish surfaces from damage during construction.

Building Codes

Current data on building code requirements and product compliance may be obtained from Metal Sales technical support specialists. Installation must comply with the requirements of authority having jurisdiction.

6. AVAILABILITY AND COST

Availability

Metal Sales products are nationally distributed and supported from 21 convenient locations nationwide, including Alaska. Manufacturer has the ability to ship worldwide. Contact manufacturer for information on local availability.

Cost

Budget installed cost information may be obtained from a local Metal Sales distributor or directly from the manufacturer.

7. WARRANTY

Special Exposed Panel Finish Warranty: Manufacturer's standard form PVDF (Fluorocarbon System) Warranty for film integrity, chalk rating and fade rating in which manufacturer agrees to repair or replace panels that show evidence of deterioration within specified warranty period. Deterioration shall include, but is not limited to, color fading of more than 5 Hunter units when tested according to ASTM D 2244, chalking in excess of a No. 8 rating when tested according to ASTM D 4214 or cracking, checking, peeling or failure of paint to adhere to bare metal. Warranty Period for film integrity is 45 years and for chalk and fade rating is 35 years. Metal Sales warranty excludes surface deterioration due to physical damage and exposure to salt air environments.

Special Exposed Panel Finish Warranty: Manufacturer's standard form (MS Colorfast45) proprietary two coat roll coated System Warranty for film integrity, chalk rating and fade rating in which manufacturer agrees to repair or replace panels that show evidence of deterioration within specified warranty period. Deterioration shall include, but is not limited to, color fading of more than 5 Hunter units on vertical applications or more than 6 Hunter units on non-vertical applications when tested according to ASTM D 2244, chalking in excess of a No. 8 rating on vertical applications or a No. 7 rating on non-vertical applications when tested according to ASTM D 4214, cracking, checking, peeling or failure of paint to adhere to bare metal or perforation. Warranty Period for film integrity is 45 years, chalk and fade rating for 30 years and perforation for 25 years for AZ50 material. Metal Sales warranty excludes surface deterioration due to physical damage and exposure to salt air environments.

8. MAINTENANCE

No specific maintenance is required for properly installed Metal Sales wall panel products. Periodic panel inspection to verify system integrity, drainage functionality and repair of storm damage is advised.

9. TECHNICAL SERVICES

Technical assistance, including more detailed information, product literature, test results, project lists, assistance in preparing project specifications and arrangements for application supervision, is available by contacting Metal Sales.

10. FILING SYSTEMS

Additional product information is available from the manufacturer upon request. Metal Sales product information may be found online metalsales.us.com



Silicon Valley Animal Center, Milpitas, CA

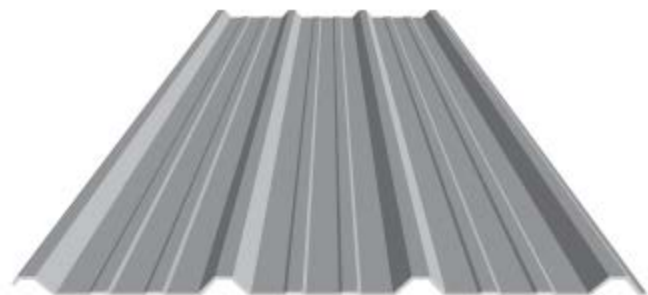
KCHA - BIRCH CREEK FENCE REPLACEMENT - EXHIBITS AND SPECS

PBR-PANEL

Liner, Roof, Wall

Panel Coverage: 36"**Rib Height:** 1-1/4"**Rib Features:** 12" centers**Standard Gauges:** 24 ga., 26 ga., 29 ga.**Optional Gauge:** 22 ga.

PBR-Panels are versatile panels. They are used in a wide variety of applications and are suited for open framing support conditions, as well as a solid substrate.

Available Material: Steel**Fasteners:** Exposed**Available Substrates:** Open Framing, Solid Substrate**Standard Finishes:** Acrylic Coated Galvalume®, MS Colorfast45®, PVDF

KCHA - BIRCH CREEK FENCE REPLACEMENT - EXHIBITS AND SPECS



Aug 30, 2022 12:16:39 PM
13114 Southeast 277th Place
Kent
King County
Washington

KCHA - BIRCH CREEK FENCE REPLACEMENT - EXHIBITS AND SPECS



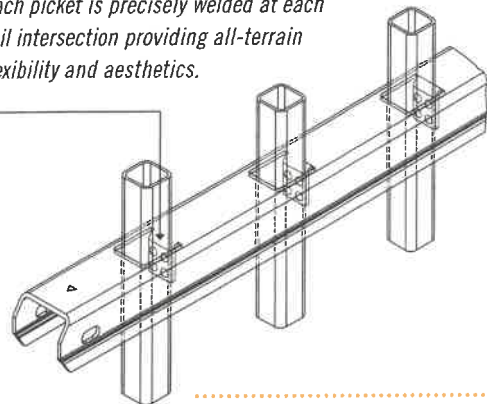
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13118 Southeast 277th Place
Kent
King County
Washington

MONTAGE II®

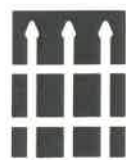
INDUSTRIAL ORNAMENTAL STEEL FENCE

1"sq x 14ga PICKETS | 1.75" x 1.75" x 12ga RAILS | 2.5"sq x 12ga & 3"sq x 12ga POSTS

Each picket is precisely welded at each rail intersection providing all-terrain flexibility and aesthetics.



STYLE OPTIONS



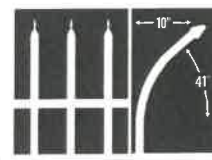
CLASSIC™



MAJESTIC™



GENESIS™



INVINCIBLE™

PROFUSION WELDED STEEL



PROFUSION WELDING

All Montage fence panels are fabricated using Ameristar's ProFusion welding process. This technique combines laser and fusion technology to create a virtually invisible structural connection at every picket to rail intersection. Unlike typical aluminum fence systems that are held together with unsightly screws, the ProFusion weld used with Montage promotes a "good neighbor" profile with sleek lines and no exposed picket to rail fasteners. When compared to aluminum fencing, Montage's welded steel construction is unmatched in strength and durability.



PROTECTED BY E-COAT

E-COAT™ PROTECTIVE FINISH

Montage galvanized steel framework is subjected to a multi-stage pre-treatment/wash (with zinc phosphate), followed by a duplex cathodic electrocoat system consisting of an epoxy primer, which significantly increases corrosion protection, and an acrylic topcoat, which provides the protection necessary to withstand adverse weathering effects. This process results in years of maintenance-free ownership.



20 YEAR LIMITED WARRANTY

The Montage families of fencing products are manufactured from superior quality materials by skilled craftsmen with the highest standards of workmanship in the industry. Ameristar is confident in offering Montage with a 20 year limited warranty.



DOMESTIC MANUFACTURING

Ameristar is committed to providing products that are manufactured in the USA. We have made significant investments in technology, process improvement, and employee training in an effort to secure American jobs and combat inferior import products.





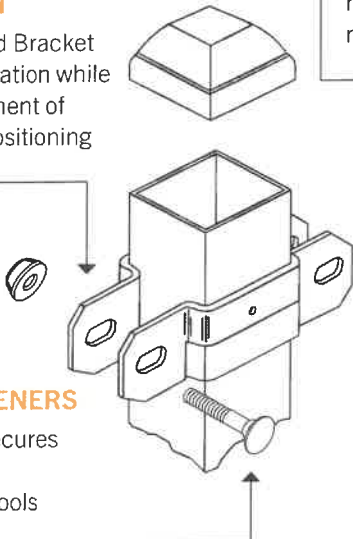
MONTAGE II[®]

INDUSTRIAL ORNAMENTAL STEEL FENCE

Montage II is an industrial-grade steel fence that delivers on all levels. Superior welding techniques create a profile that lends itself to stylish design while sustaining a level of unmatched security through all-terrain flexibility.

PANEL BRACKET

Universal Boulevard Bracket enables easy installation while allowing for adjustment of panel height and positioning

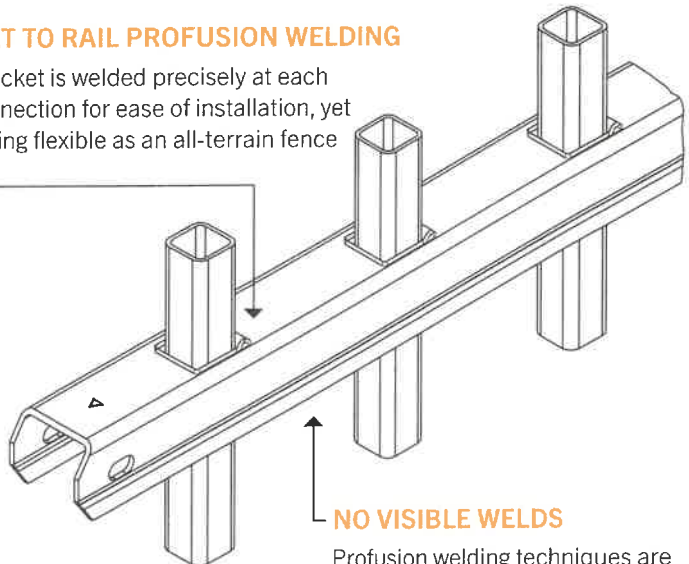


SECURITY FASTENERS

Security fastener secures the rail and deters removal by typical tools

PICKET TO RAIL PROFUSION WELDING

Each picket is welded precisely at each rail connection for ease of installation, yet remaining flexible as an all-terrain fence



NO VISIBLE WELDS

Profusion welding techniques are both strong and hidden from view, providing a good neighbor profile

AMERISTAR® PERIMETER SECURITY USA INC.

Montage II® - Heavy Industrial Steel Ornamental Fence System – Fusion Welded and Rackable

CONSTRUCTION SPECIFICATION - SECTION 32 31 19

PART 1 - GENERAL

1.01 WORK INCLUDED

The contractor shall provide all labor, materials and appurtenances necessary for installation of the welded ornamental steel fence system defined herein at (specify project site).

1.02 RELATED WORK

Section ____ - Earthwork

Section ____ - Concrete

1.03 SYSTEM DESCRIPTION

The manufacturer shall supply a total fence system of Montage II® **Welded and Rackable** (ATF – All Terrain Flexibility) Ornamental Steel (specify Invincible™, Classic™, Majestic™, or Genesis™) design. The system shall include all components (i.e., panels, posts, gates and hardware) required.

1.04 QUALITY ASSURANCE

The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.05 REFERENCES

- ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
- ASTM B117 - Practice for Operating Salt-Spray (Fog) Apparatus.
- ASTM D523 - Test Method for Specular Gloss.
- ASTM D714 - Test Method for Evaluating Degree of Blistering in Paint.
- ASTM D822 - Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
- ASTM D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
- ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
- ASTM D2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
- ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.
- ASTM F2408 – Ornamental Fences Employing Galvanized Steel Tubular Pickets.

1.06 SUBMITTAL

The manufacturer's literature shall be submitted prior to installation.

1.07 PRODUCT HANDLING AND STORAGE

Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

1.08 PRODUCT WARRANTY

KCHA - BIRCH CREEK FENCE REPLACEMENT - EXHIBITS AND SPECS

A. All structural fence components (i.e. rails, pickets, and posts) shall be warranted within specified limitations, by the manufacturer for a period of 20 years from date of original purchase. Warranty shall cover any defects in material finish, including cracking, peeling, chipping, blistering or corroding.

B. Reimbursement for labor necessary to restore or replace components that have been found to be defective under the terms of manufacturer's warranty shall be guaranteed for five (5) years from date of original purchase.

PART 2 - MATERIALS

2.01 MANUFACTURER

The fence system shall conform to Montage II® **Welded and Rackable** (ATF – All Terrain Flexibility) Ornamental Steel, (specify Invincible™, Classic™, Majestic™, or Genesis™) design, (specify extended picket or flush) bottom rail treatment, (specify 2-Rail, 3-Rail or 4-Rail) style manufactured by Ameristar Fence Products, Inc., in Tulsa, Oklahoma.

2.02 MATERIAL

A. Steel material for fence panels and posts shall conform to the requirements of ASTM A653/A653M, with a minimum yield strength of 45,000 psi (310 MPa) and a minimum zinc (hot-dip galvanized) coating weight of 0.90 oz/ft² (276 g/m²), Coating Designation G-90.

B. Material for pickets shall be 1" square x 14 Ga. tubing. The rails shall be steel channel, 1.75" x 1.75" x .105". Picket holes in the rail shall be spaced 4.715" o.c. Fence posts and gate posts shall meet the minimum size requirements of Table 1.

2.03 FABRICATION

A. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets.

B. Pickets shall be inserted into the pre-punched holes in the rails and shall be aligned to standard spacing using a specially calibrated alignment fixture. The aligned pickets and rails shall be joined at each picket-to-rail intersection by Ameristar's proprietary fusion welding process, thus completing the rigid panel assembly (Note: The process produces a virtually seamless, spatter-free good-neighbor appearance, equally attractive from either side of the panel).

C. The manufactured panels and posts shall be subjected to an inline electrodeposition coating (E-Coat) process consisting of a multi-stage pretreatment/wash, followed by a duplex application of an epoxy primer and an acrylic topcoat. The minimum cumulative coating thickness of epoxy and acrylic shall be 2 mils (0.058 mm). The color shall be Black. The coated panels and posts shall be capable of meeting the performance requirements for each quality characteristic shown in Table 2 (Note: The requirements in Table 2 meet or exceed the coating performance criteria of ASTM F2408).

D. The manufactured fence system shall be capable of meeting the vertical load, horizontal load, and infill performance requirements for Industrial weight fences under ASTM F2408.

E. Swing gates shall be fabricated using 1.75" x 14ga Forerunner double channel rail, 2" sq. x 12ga. gate ends, and 1" sq. x 14ga. pickets. Gates that exceed 6' in width will have a 1.75" sq. x 14ga. intermediate upright. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall also be joined by welding. Gusset plates will be welded at each upright to rail intersection. Cable kits will be provided for additional trussing for all gates leaves over 6'.

F. Pedestrian swing gates shall be self-closing, having a gate leaf no larger than 48” width. Integrated hinge-closer set (2 qty) shall be ADA compliant that shall include a variable speed and final snap adjustment with compact design (no greater than 5” x 6” footprint). Hinge-closer set (2 qty) shall be tested to a minimum of 500,000 cycles and capable of self-closing gates up to a maximum gate weight of 260 lbs. and maximum weight load capacity of 1,500 lbs. Hinge-closer device shall be externally mounted with tamper-resistant security fasteners, with full range of adjustability, horizontal (.5” - 1.375”) and vertical (0 - .5”). Maintenance free hinge-closer set shall be tested to operate in temperatures of negative 20 F to 200 F degrees, and swings to negative 2 degrees to ensure reliable final lock engagement.

PART 3 - EXECUTION

3.01 PREPARATION

All new installation shall be laid out by the contractor in accordance with the construction plans.

3.02 FENCE INSTALLATION

Fence post shall be spaced according to Table 3, plus or minus ½”. For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. Fence panels shall be attached to posts with brackets supplied by the manufacturer. Posts shall be set in concrete footers having a minimum depth of 36” (Note: In some cases, local restrictions of freezing weather conditions may require a greater depth). The “Earthwork” and “Concrete” sections of this specification shall govern material requirements for the concrete footer. Posts setting by other methods such as plated posts or grouted core-drilled footers are permissible only if shown by engineering analysis to be sufficient in strength for the intended application.

3.03 FENCE INSTALLATION MAINTENANCE

When cutting/drilling rails or posts adhere to the following steps to seal the exposed steel surfaces; 1) Remove all metal shavings from cut area. 2) Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry. 3) Apply 2 coats of custom finish paint matching fence color. Failure to seal exposed surfaces per steps 1-3 above will negate warranty. Ameristar spray cans or paint pens shall be used to prime and finish exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar parts or components will negate the manufactures’ warranty.

3.04 GATE INSTALLATION

Gate posts shall be spaced according to the manufacturers’ gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles. The manufacturers’ gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacturer of the gate and shall be installed per manufacturer’s recommendations.

3.05 CLEANING

The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered uniformly away from posts.

Table 1 – Minimum Sizes for Montage II Posts			
<u>Fence Posts</u>	<u>Panel Height</u>		
2-1/2” x 12 Ga.	Up to & Including 6’ Height		
3” x 12 Ga.	Over 6’ Up to & Including 8’ Height		
<u>Gate Leaf</u>		<u>Gate Height</u>	
		<u>Up to & Including 4’</u>	<u>Over 4’ Up to & Including 6’</u>
		<u>Over 6’ Up to & Including 8’</u>	

KCHA - BIRCH CREEK FENCE REPLACEMENT - EXHIBITS AND SPECS

Up to 4'	2-1/2" x 12 Ga.	3" x 12 Ga.	3" x 12 Ga.
4'1" to 6'	3" x 12Ga.	4" x 11 Ga.	4" x 11 Ga.
6'1" to 8'	3" x 12 Ga.	4" x 11 Ga.	6" x 3/16"
8'1" to 10'	4" x 11 Ga.	6" x 3/16"	6" x 3/16"
10'1" to 12'	4" x 11 Ga.	6" x 3/16"	6" x 3/16"
12'1" to 14'	4" x 11 Ga.	6" x 3/16"	6" x 3/16"
14'1" to 16'	6" x 3/16"	6" x 3/16"	6" x 3/16"

Table 2 – Coating Performance Requirements		
<u>Quality Characteristics</u>	<u>ASTM Test Method</u>	<u>Performance Requirements</u>
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117, D714 & D1654	Corrosion Resistance over 1,500 hours (Scribed per D1654; failure mode is accumulation of 1/8" coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625" ball).
Weathering Resistance	D822 D2244, D523 (60° Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

Table 3 – Montage II – Post Spacing By Bracket Type										
Span	For INVINCIBLE® 8' Nominal (91-1/2" Rail)				For CLASSIC, GENESIS, & MAJESTIC 8' Nominal (92-5/8" Rail)					
	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"
Bracket Type	Industrial Flat Mount (BB301)*		Industrial Line 2-1/2" (BB319) 3" (BB320)		Industrial Universal 2.5" (BB302) 3" (BB303)		Industrial Flat Mount (BB301)		Industrial Swivel (BB304)*	
Post Settings ± 1/2" O.C.	94-1/2"	95"	94-1/2"	95"	96"	96-1/2"	96"	96-1/2"	*96"	*96-1/2"

*Note: When using BB304 swivel brackets on either or both ends of a panel installation, care must be taken to ensure the spacing between post and adjoining pickets meets applicable codes. This will require trimming one or both ends of the panel. When using the BB301 flat mount bracket for Invincible style, rail may need to be drilled to accommodate rail to bracket attachment.