

FACT SHEET

AIRPORT LOW-PROFILE BARRICADE – APPROVED FOR USE

CHANGES TO FAA APPROVED BARRICADES FOR USE AT AIRPORTS

How do you comply with the new changes of Airport Advisory Circular 150/5370-2E, *Operational Safety on Airports During Construction*? With today's growing concern over airfield safety and the growing associated costs for construction, airports need to review critical safety equipment requirements, such as, barricades and closure markings during construction projects, and other operational closure requirements while applying "best use practices."

Currently, there are several types of safety barricades used at airports. Many barricades are no longer allowed under newest changes of **AC 150/5370-2E, "Operational Safety on Airports During Construction" released January 17, 2003**. Several types include, railroad ties, wood timbers, buckets, PVC (square or rectangular designs), and other "timber size" barricades are no longer acceptable according to these new changes and performance standards of the Federal Aviation Administration (FAA).

The Federal Aviation Administration (FAA) establishes safety performance standards for airport operations and these measures state, **"A device (barricade) that is easily collapsible upon contact with an aircraft or any of its components and would not damage or cause minimal damage if impacted."** In conjunction with the AC 150/5370-2E, only barricades that meet this requirement are acceptable for use within safety areas on the airfield when closing pavement surfaces. The AC specifically states, **"All barricades, temporary markers, and other objects placed and left in safety areas associated with any open runway, taxiway, must be as low as possible to the ground; of low mass; easily collapsible upon contact with an aircraft or any of its components; and weighted or sturdily attached to the surface to prevent displacement from prop wash, jet blast, wing vortex, or other surface wind currents. (ref. AC 150/5370E para. 3-09.b.)"**

SUMMARY STATEMENT: Airfield barricades are required to be low and collapsible, marked with diagonal alternating orange and white high reflective grade tape, with one(1) approved RED State Highway Department Light (no substitutes allowed), and a safety orange flag is optional.

APPROVED BARRICADES AND ASSOCIATED COST CONCERNS

Barricades that are no longer acceptable for airports include, railroad ties, wood planks, buckets, and PVC (square or rectangular designs), and other "timber size" barricades. Barricades in excess of nine inches may not be considered low-profile to prevent damage to aircraft unless the barricades are mounted on a frangible base. An airport recently used fifty-five gallon drums with reflective engineering grade tape. This configuration is noncompliant and leaves the airport open to potential legal liability for failing to comply with FAA standards. Airports need to be more aware of such liabilities by understanding clearly the intent of the AC 150/5370-2E while protecting stakeholders from non-standard materials or barricades. Both airport authorities and engineering firms need to review these standards with their local FAA Airports District Office Certification Inspector to clearly understand which barricades are acceptable for pavement surface closures located within operational safety areas.

Cost is a major concern to airports. Often an airport will specify or purchase expensive "high-end" barricades costing in excess of \$250.00 and up for each (barricade, reflective tape, and safety light) which can add up quickly when undergoing

a major apron project resulting in Hundreds of Thousands of dollars in wasted expense which could have been saved by putting more funds into the actual project and reducing overall capital cost. More importantly, airports have failed to include specific wording within the engineering design drawings requiring that these barricades be turned over to the airport authority after the project is completed. Recently, a set of thirty thousand dollar lighted "X" closure markings were purchased by a contractor for use during a runway construction project but because the airport authority failed to specify the units be turned over to the airport after project completion, the units became property of the contractor. Airports spend thousands of dollars each year for contractor's supplies for use during an AIP project but fail to have these barricades transferred to the airport owner upon project completion for future use during pavement closures.

When using federal funding, all airport safety products must be specified for use and include the wording, "or approved equal". Airport plans can not be product specific for a federally funded capital project as long as the product meets FAA performance specifications. When a project is completed, require the materials to be turned over to the airport for future use.

RECOMMENDATION:

There are three barricade types available to airports in properly closing pavement surfaces for best use and fully meet FAA performance specifications:

1. **PC2410 low-profile (6 ft.) barricade** is an extremely cost effective (approx \$121.00 ea.) solution for small commercial and general aviation airports. (See Exhibit A)
2. **PC9642 low-profile (8 ft.) barricade** is ideal for larger airports or projects requiring larger liner coverage or "liking barricades together" without the use of pins or anchors. (See Exhibit B)

NOTE: Both PC2410 & PC9642 barricades are reusable, and fully comply with AC 150/5370-2E. These barricades were designed with aviation in mind. Each barricade allows wind (jet blast) to flow over the barricade, similar to the wing of an aircraft, creating higher pressure on the surface of the barricade and forcing it in place to further prevent movement. Barricades are water-filled for easy use and placement.

3. **AB812L low-profile (8ft) barricade "NO ENTRY"** allows general aviation (GA) airports a cost effective to comply with FAA standards by placing one barricade on centerline of the taxiway to properly close the pavement surface for use. (See Exhibit C)

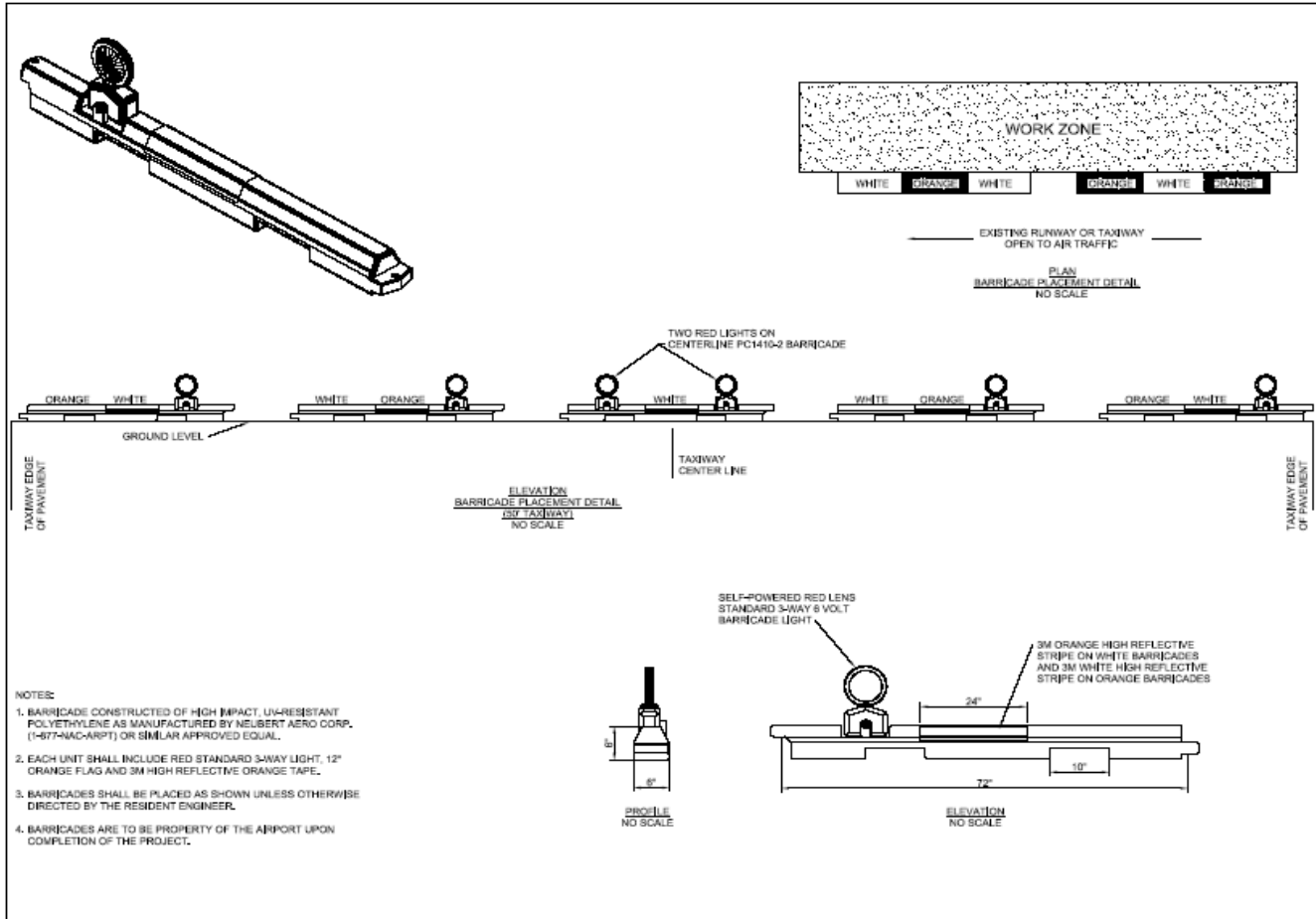
During the planning stage of a project, perform an inventory of existing airport barricades and specify the best barricades for use for your operation. Either barricade referenced or a combination of barricades can greatly reduce the safety cost of a project and when these barricades are used in conjunction with other safety products as the NAC temporary runway "X" closure markings provides the greatest level of safety that can be provided for safe operations during constructin.

The recently released NTSB Safety Recommendation to the FAA outlined the importance of establishing a standardized closure configuration of taxiways and runways. Each taxiway leading to a closed runway must be closed and clearly marked. The NTSB clearly stated, "Inadvertent use of a closed runway can result in loss of life and damage to aircraft." Airports can no longer just place closure markings at each end of a closed runway but must also clearly mark a closed taxiway entrance leading to the closed runway to prevent inadvertent entrance by operational aircraft.

These units are positioned on closed pavement surfaces using alternating barricade colors (Orange barricade with White High-reflective tape and White barricade with Orange High-reflective tape) comply with AC 150/5370-2E for airfield safety barricades which are collapsible, and marked with diagonal alternating orange and white high reflective grade tape, and one approved RED State Highway Department light. A safety flag is not necessary but recommended. Using this configuration, it is recommended to place an orange barricade with two red safety lights placed on the aircraft centerline

allowing a clear visual indication followed by alternating white and orange barricades across the entrance of the closed surface.

Exhibit A

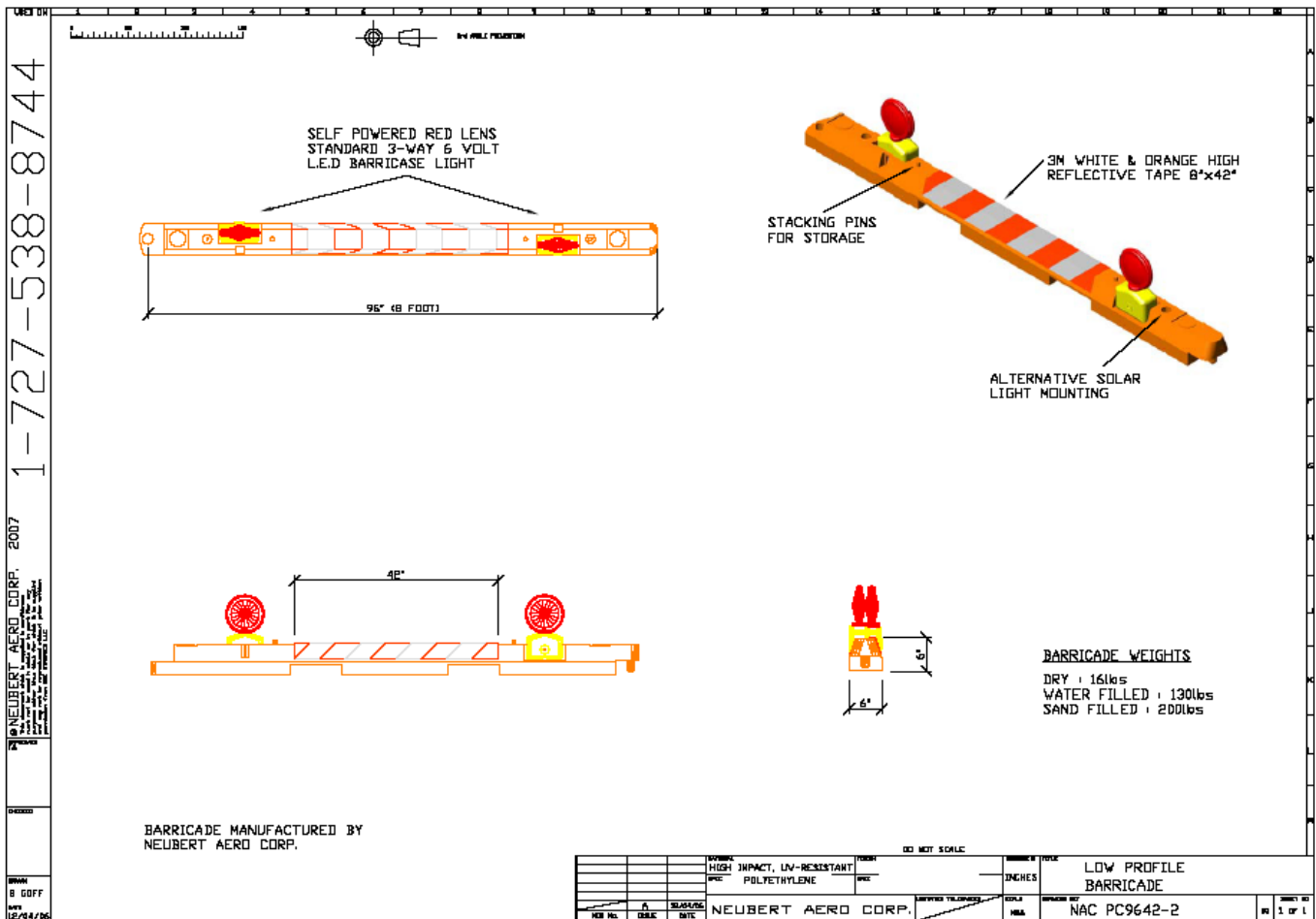


NAC PC 2410 Airport Low-Profile Barricade-Reusable Runway and Taxiway Configuration

PC2410 low profile barricade is a “best use” for General Aviation or small airport projects.

Note: Electronic copies of this drawing are available upon request.

Exhibit B



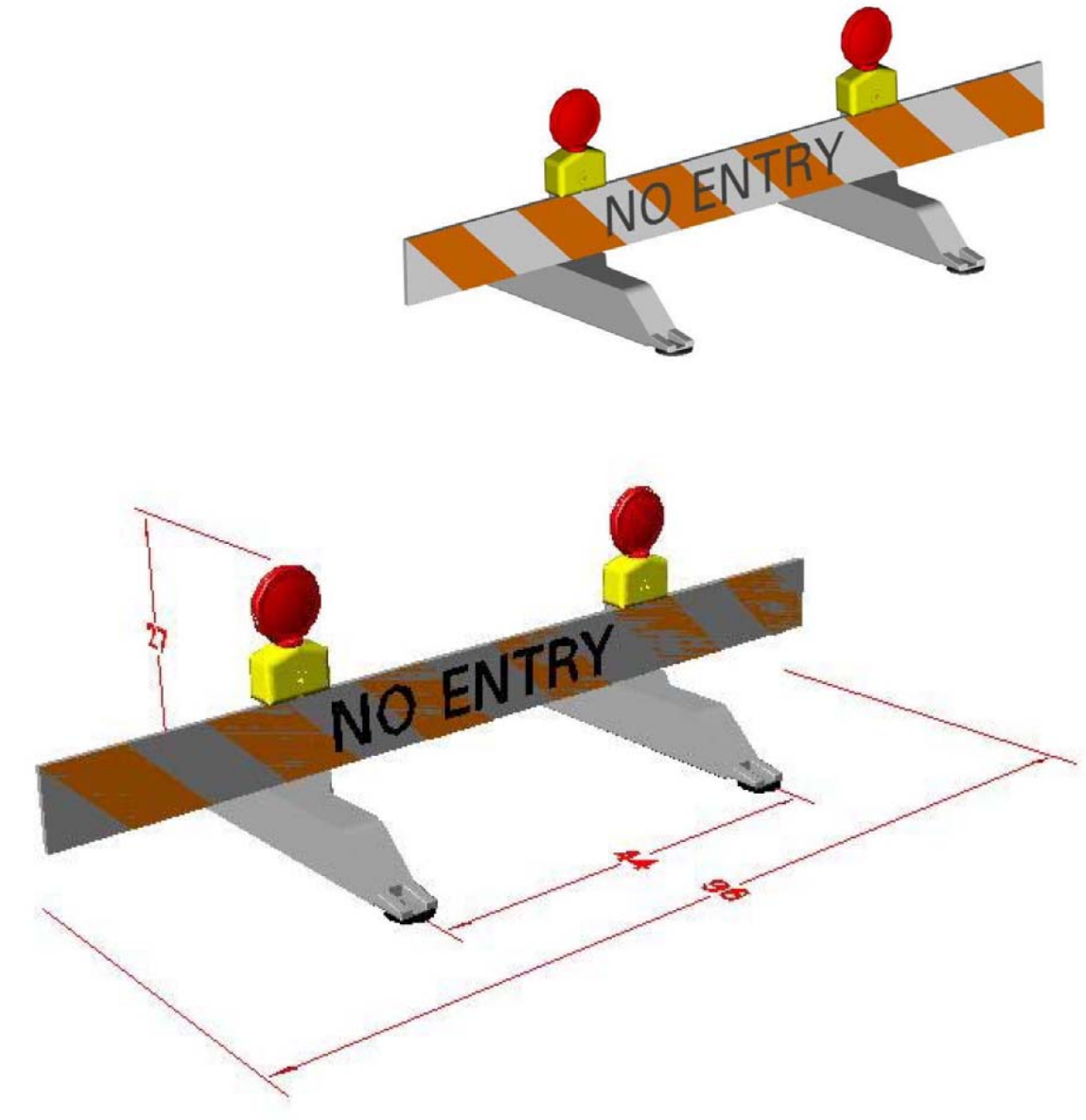
NAC PC 9642 Airport Low-Profile Barricade-Reusable Runway and Taxiway Configuration

PC9642 low profile barricades are a "best use" for larger airport project or projects with large liner area coverage.

Note: Electronic copies of this drawing are available upon request.



Exhibit C



NAC AB812L “NO ENTRY” Airport Low-Profile Barricade-Reusable Runway and Taxiway Configuration

AB812L barricades are a “best use” for small General Aviation airports. These barricades use hi reflective grade tape with reflective black wording, “NO ENTRY” and can be placed on the centerline of a closed taxiway entrance as specified within the airport advisory circular.

THIS DOCUMENT WAS PREPARED BY NEUBERT AERO CORP. AND IS PROVIDED AS REFERENCE MATERIAL FOR AIRPORT OPERATIONS AND SHOULD NOT BE USED AS A STANDARD OPERATING PRACTICE WITHOUT CONFIRMING WITH A LOCAL FAA-ADO CERTIFICATION INSPECTOR. NEUBERT AERO CORP. IS A PROVIDER OF QUALITY AIRPORT SAFETY PRODUCTS AND LOCATED IN CLEARWATER, FLORIDA. COPY RIGHT 2007

Note: Electronic copies of this drawing are available upon request.

Material References:

1. AC 150/5340-H – Standard for Airport Markings (8-31-99). Describes the standards for markings used on airport runways, taxiways, and aprons.
2. AC 150/5370-2E - Operational Safety on Airports During Construction (1-17-03). Concerning operational safety on airports with special emphasis on safety during periods of construction activity, to assist airport operators in complying with part 139.
3. FAA Standard Performance Requirement: A device that is easily collapsible upon contact with an aircraft or any of its components and would not damage or cause minimal damage if impacted.
4. NTSB Safety Recommendation – March 3, 2003. UPS flight 896 and Denver International Airport Runway Closure.