

Tri-State Bird Rescue & Research, Inc.

Oiled Wildlife Response

Sam Christie



Presentation Agenda



- Response Capabilities
- Working with Our Team
- Wildlife Response Annex
- Regional Wildlife Preparedness



Tri-State's History



- Founded in 1976
- Training, Planning, & Response
- Local & International Reach
- NGO funded by private donations

Oil Programs Statement of Purpose

To reduce the impact of oil and certain other contaminants on wildlife and to provide **rapid response**, **effective treatment** and **humane care for animals** that become contaminated wherever needed, practical and feasible on a global basis.

Oil Programs

- Five staff dedicated to oil programs
 - HAZWOPER 40 hour
 - Annual 8 hour refresher
 - ICS 100-400, 700, 800
 - First Aid
 - SCAT
 - TWIC
- Full-time Wildlife Veterinarian on staff
- Core Team of volunteers
- Local and pre-trained volunteers



Preparedness

- Contingency Planning
- Workshops
- Education
- Supporting Rehabilitators & Industry
- Drills & Exercises
- Attending Meetings
- Conferences
- Research



Initial Notification

24 hour response hotline:

800-261-0980

TSBRR notifies:

US DOI

USFWS

State wildlife agency



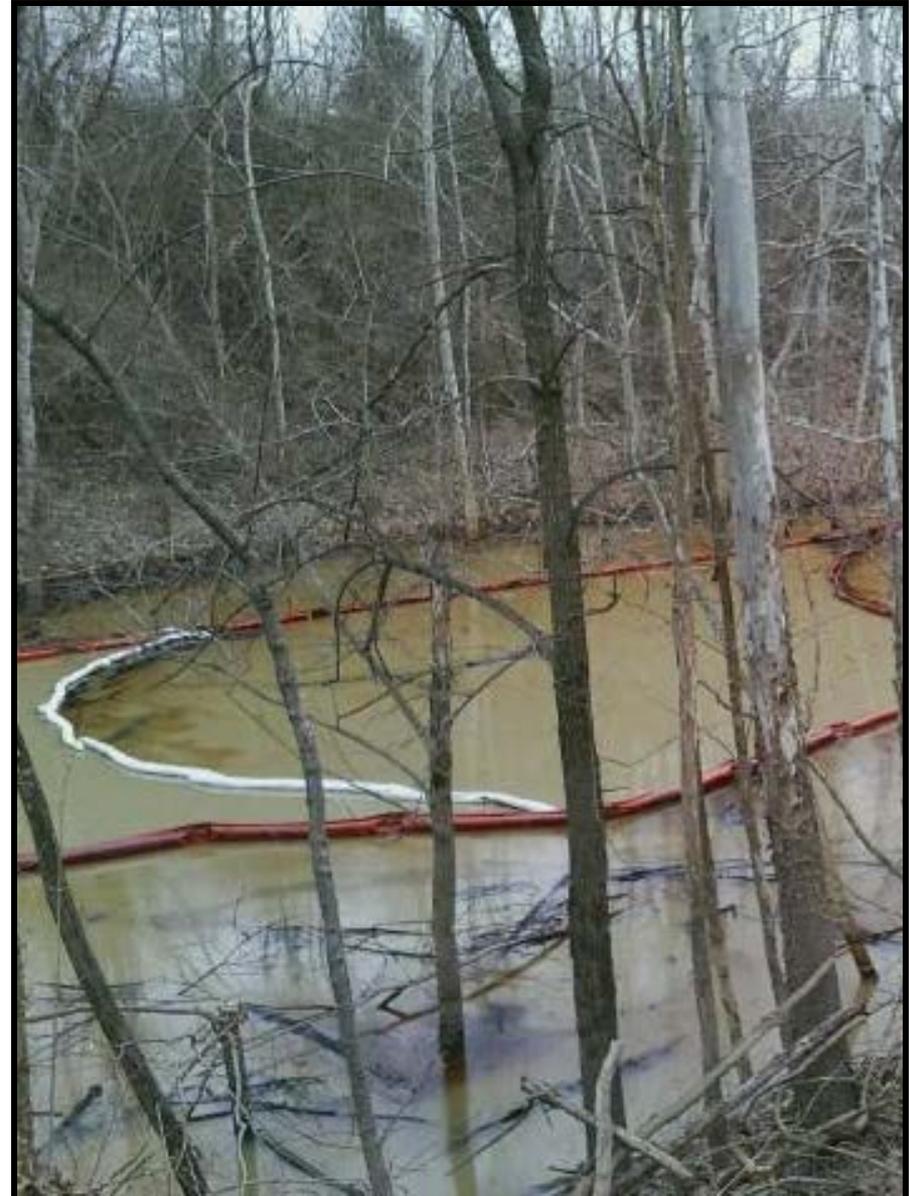
Levels of Activation



- Alert
- Assessment
- Response



Response



Oiled Wildlife Rehabilitation

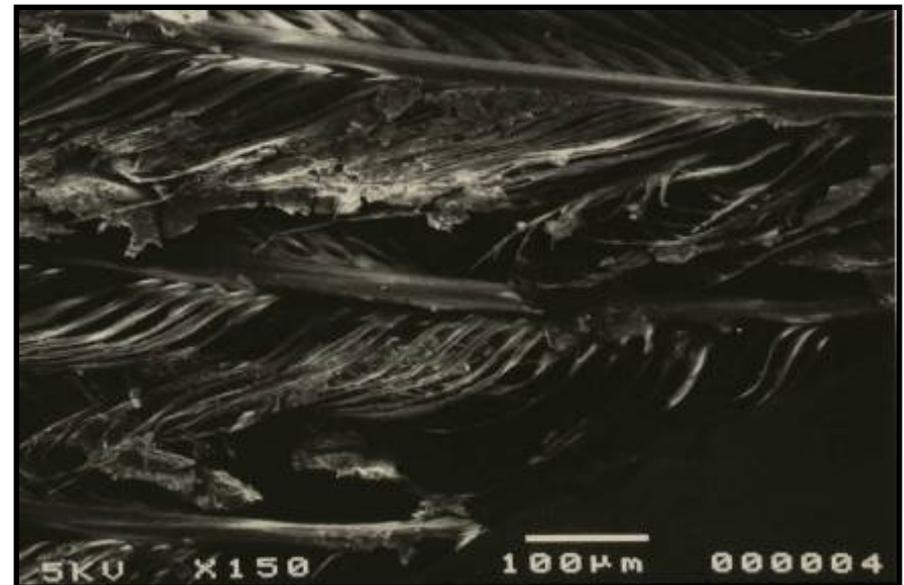
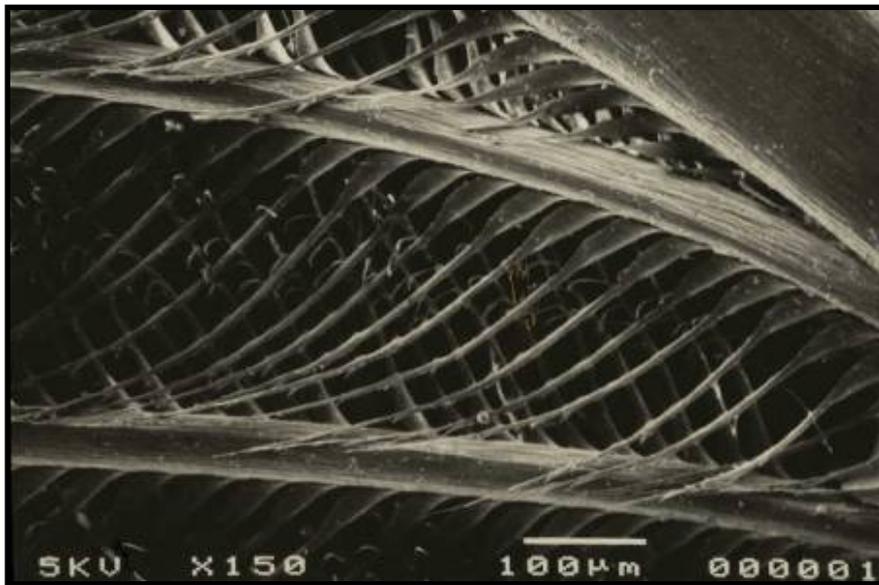


External Effects of Oil



- Disrupts Waterproofing
- Inhibits Thermoregulation
- Decreases Buoyancy
- Impairs Flight

Feathers



Effects of Oil on Wildlife

Address the effects of oil:

- Internal
 - Dehydration
 - GI irritation
- External
 - Contamination
 - Skin issues
 - Eye injuries



Nuances of Oiled Wildlife

- Hazardous Contaminant
 - Safety
 - Containment
- Number of Animals
 - Variety of species
 - Rapid fluctuation
- Facility Demands
 - Housing requirements
 - Water specifications
- Legal Considerations
 - Agency collaboration
 - Evidentiary concerns



Medical Admit



- Physical exam
- Hydration
- Blood draw
- Evidence collection
- Rest



Feather Testing



Decontamination

Addressing the External Effects of Oil:

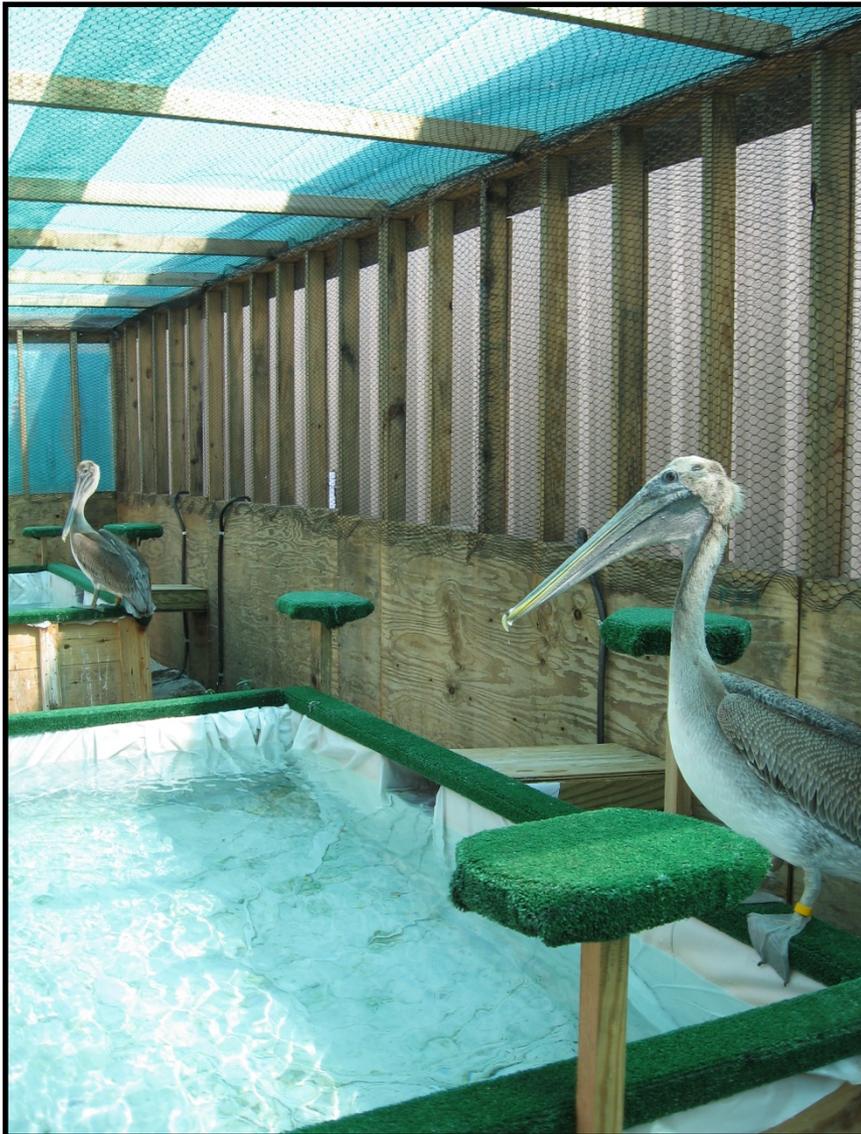
- Wash



- Rinse



Clean Animal Housing



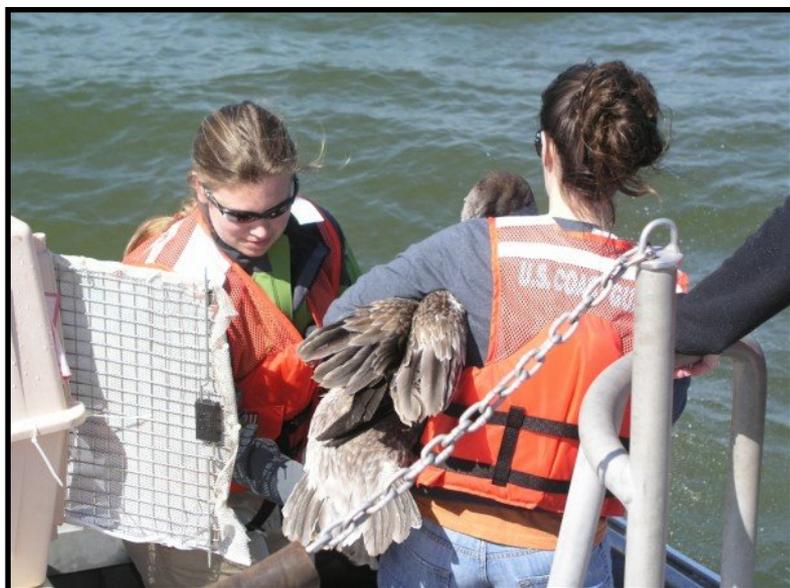
- Waterproof
- Acclimation
- Continuing medical care



Release



- Typical rehab takes 1- 2 weeks
- Pre-release medical exam
- Consult with spill managers & wildlife agencies
- Banding



Facility Requirements

- Square footage: **15,000 sq. ft.**
- Water Volume
 - Cold Water (*pools and general use*): **23,360 gallons/day**
 - Hot Water (*animal cleaning only*): **6,750 gallons/day @ 104° F**
- Water Pressure (*animal cleaning only*): **50 - 60 psi**
- Water Hardness (*animal cleaning only*): **2.5 - 3.5 grains/gallon**

- Security
- HVAC
- Volunteer & Staff space
- Location from spill site



Wildlife Response Annex



NOTE:
FUTURE STONE VENEER

12'-0"

TO WALL
EL. 216.0'

TO WALL
EL. 217.0'

TO WALL
EL. 218.0'

TO WALL
EL. 220.0'

WINDOW HEAD
HEIGHT A.F.F.

WINDOW HEAD
HEIGHT A.F.F.

FIXTURE HEIGHT A.F.F.

FIXTURE HEIGHT A.F.F.



7'-4 5/8"

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WINDOW HEAD
HEIGHT A.F.F.

WINDOW HEAD
HEIGHT A.F.F.

FIXTURE HEIGHT A.F.F.

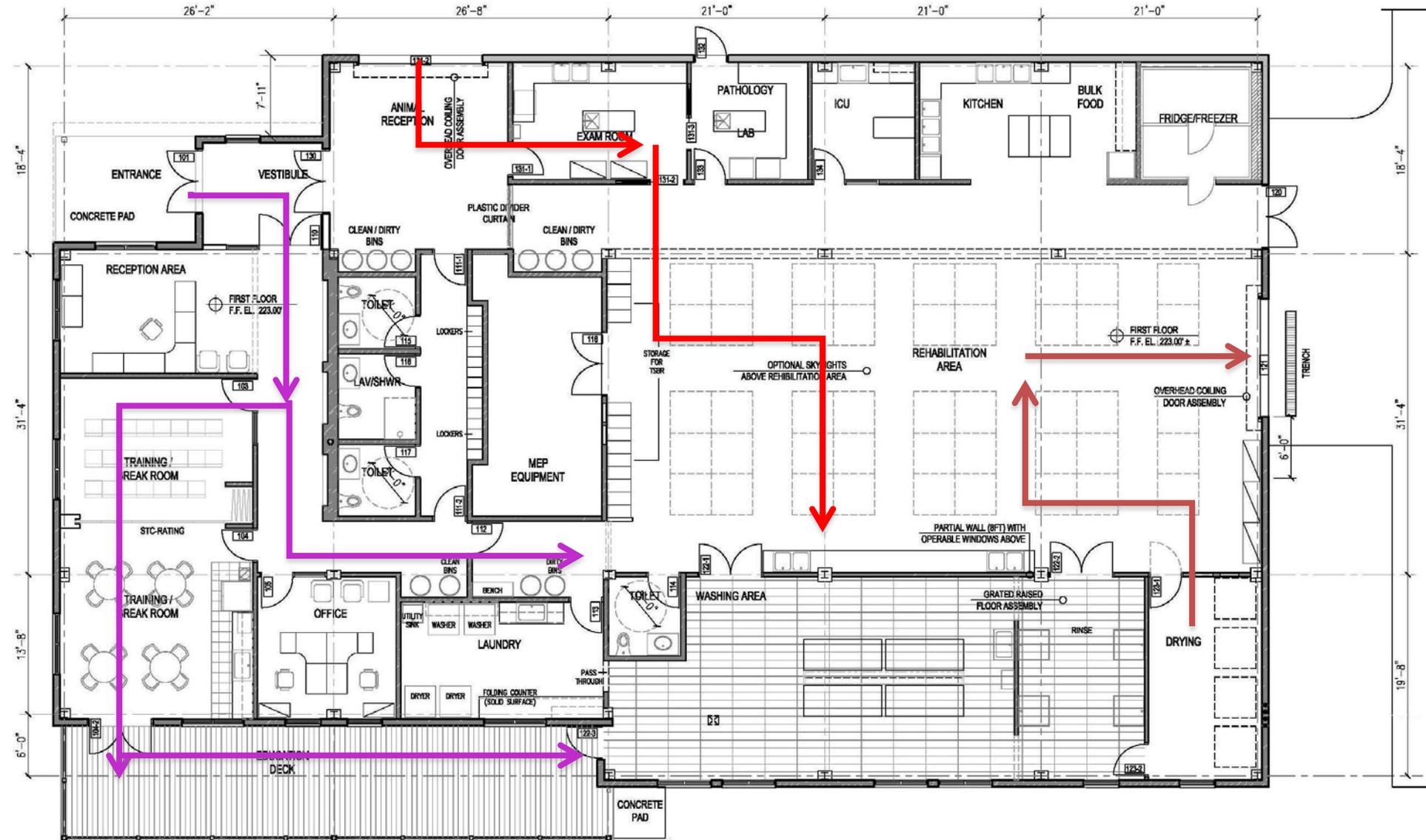
FIXTURE HEIGHT A.F.F.

Opened February 20, 2015





Flow

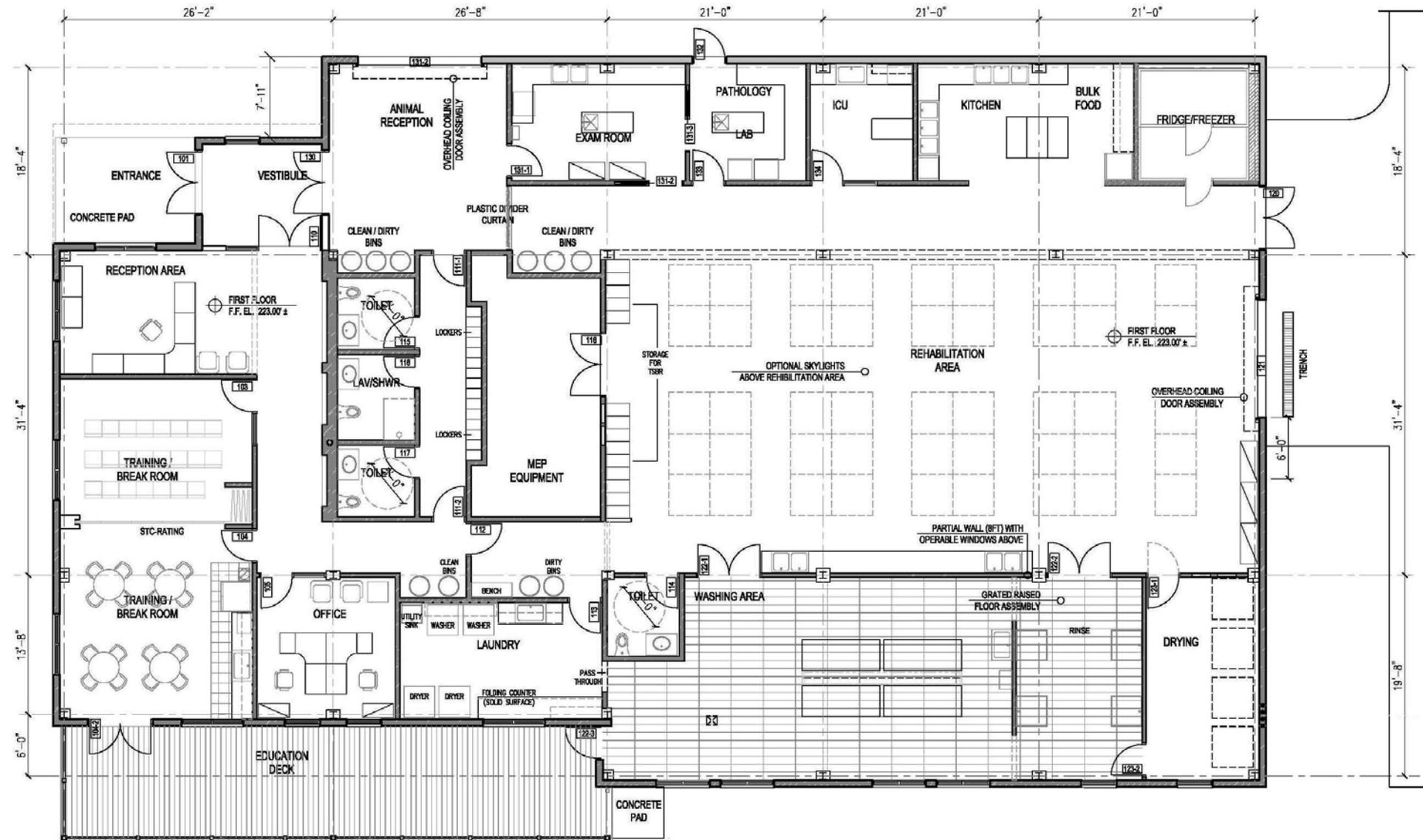


People Spaces





Flexible Spaces







EXIT

EXIT

EXIT

Annual Donor Equipment (PPE)

HVAC

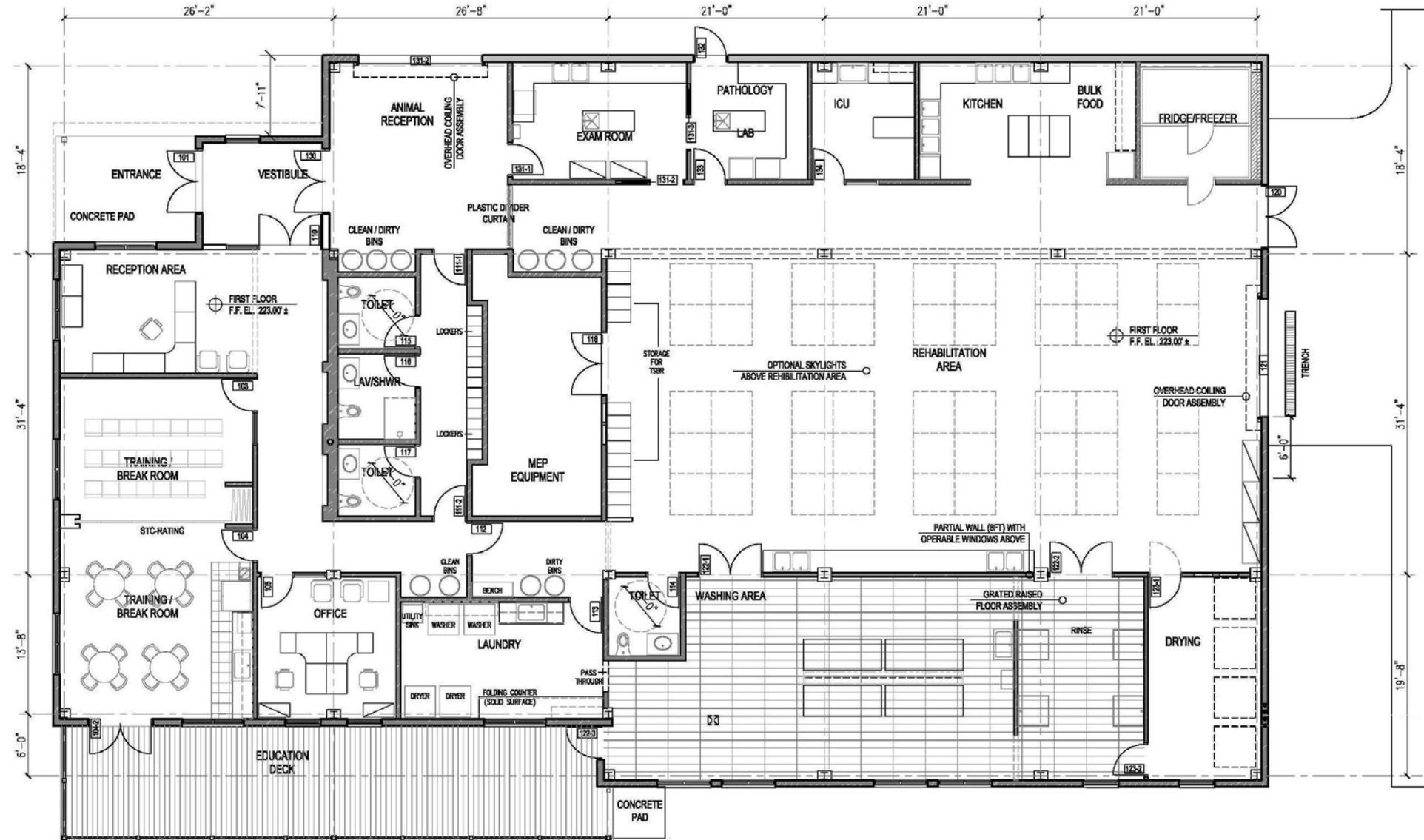


- Variable Refrigerant Flow (VRF) system
 - Energy efficient
 - Controls zones individually

- Industrial heating unit
 - 4 Complete air exchanges per hour
 - Maintains ambient air temp in winter
 - AC rental unit as needed

- Radiant floor heating
 - Rehab floor
 - Drying room floor

Wash & Rinse





Rinse Area

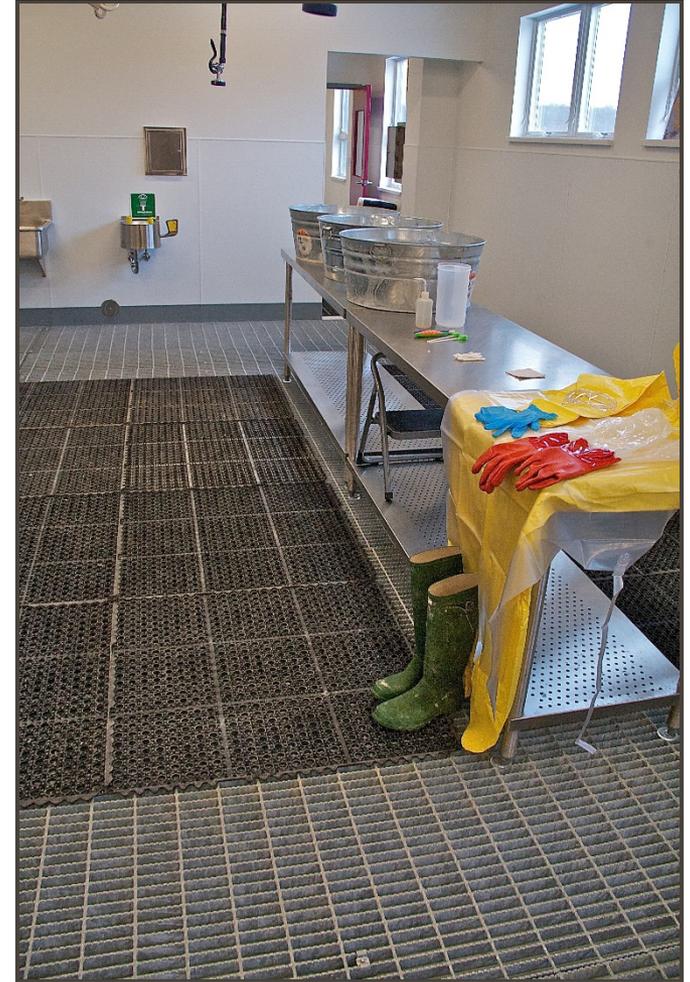


- Requires consistent water at 104°F
- Maintain water pressure at 50-60 psi
- Removes surfactant
- Water beads and rolls off clean feathers
- Begins the waterproofing process



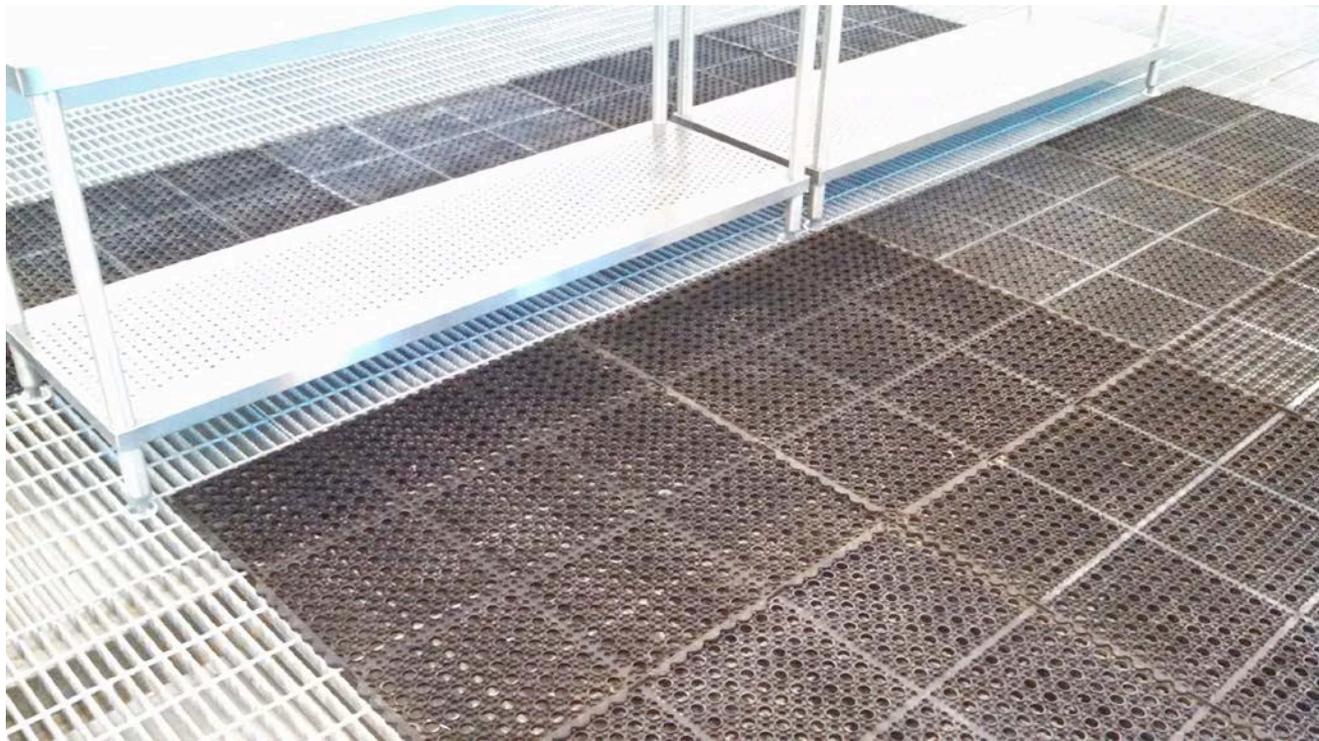
Water

- Well System
 - 400 feet deep
 - Over 40 gallons per minute
 - 5,000 gallon holding tank
- 5 Propane Water Heaters
 - Tank/tankless
 - 2 service wash
 - 2 service rinse
 - 1 services sinks, laundry, etc.





Water



- WASH — floor drains run into 12,000 gallon underwater waste tank
- RINSE — floor drains run into 12,000 gallon underwater holding tank
 - Recycled through wash lines and laundry

Exam Room



- Physical exam performed on arrival
- Evidence samples collected
- Oral and intravenous fluids administered
- Secondary and on-going medical concerns addressed





Intensive Care Unit



- Specialized care for wildlife requiring additional support
- Quiet room with limited access
- Independent temperature control to help maintain animals' body temperature



Pathology Lab



- Necropsy - examining deceased animals to help current and future animals in our care
- Hematology - analyzing blood samples to understand overall health and condition
- Parasitology - identifying harmful organisms



DO NOT DRINK
THE WATER

Wildlife Preparedness



Wildlife Preparedness

Perception vs. Reality

- Spill revenue *vs.* year-round support
 - Contingency planning *vs.* emergency notification
 - Agency & Industry participation
-
- Equipment stockpiling
 - Wildlife Response Plans
 - Exercises
 - Trainings
 - Eventually... a network of preparedness on the East coast and inland

Wildlife Preparedness

The California Model

- Oiled Wildlife Care Network
 - Started in 1993
 - Senate bill directing OSPR to establish regional facilities along the California coast
 - Funded by interest generated by OSRTF
- <http://www.vetmed.ucdavis.edu/owcn/>



Contact Information

- During business hours: (302) 737-9543
- Oil Spill Emergency Hotline 24/7: 800-261-0980
- Website: tristatebird.org
- Email: oilprograms@tristatebird.org
schristie@tristatebird.org