CITY PROPOSED 10" SANITARY SEWER STORM WATER BYPASS DITCH. LOCATION. DESIGN. EROSION CONTROLS AND FINAL SURFACING PENDING. AGRICULTURE FIELD N 229500 -VEHICLE INSPECTION AND REJECTION TURNAROUND TOP OF BERM UNDERGROUND ELECTRICAL SEEDED DRATNAGE DITCH DIESEL GENERATOR EXTERIOR STORMWATER RUNON DIVERSION BERM AND SEEDED DITCH PROPERTY LINE OUTDOOR STORAGE

PERIMETER VEGETATIVE
BUFFER STRIP PROPOSED TREES. ONE PER 100 LF ALONG ACCESS DRIVE HIGHPOINT FINISHED SURFACE AT BUILDING PERIMETER EL.827.0 -4' WIDE LANDSCAPING BERM EL.814 CENTER POINT LATITUDE: 42.62413889 LONGITUDINAL: 89.02486 EXISTING ROAD SIDE DRAINAGE TEMPORARY DISTURBANCE AREA WASTE STACING AND PEDESTRIAN ACCESS ONLY -PERIMETER PAVEMENT 0 REDIRECTED FARM FIELD RUNOFF FIRE PROTECTION WATER SUPPLY TRUCK TURNAROUND. UNLOADING. AND TEMPORARY PARKING AGRICUL TURE FIELD OUTFALL CONTROL/ STRUCTUR PERMANENT STONE DITCH CHECK (TYP) 4' WIDE OF BERM 20' WIDE SWING GATE SECURITY FENCE EDGE OF TOP OF BERM INTERIOR PERIMETER SEEDED DITC NATURAL GAS I INF STORMWATER VEGETATED SWALE
(BIO RETENTION.
INFILTRATION. AND
DETENTION. PERMIT PENDING) TEMPORARY DISTURBANCE AREA EXISTING EXISTING SANITARY SEWER PERIMETER 3 WIRE FENCE AT PROPERTY LINE

Figure 19.2.1-1 – SHINE Facility Site Layout

Tritium Purification <u>Abbreviations</u> Tritium System 99Mo - Molybdenum-99 D – Deuterium and D FPs - Fission Products LEU - Low enriched uranium Sol'n – Solution $\mathsf{T}-\mathsf{Tritium}$ TSV - Target solution vessel UREX – Uranium extraction Deuterium **Neutron Driver** radiolytic gases, FPsrecirculating gas, TSV Off-gas System recombined H₂O, FPs Subcritical Assembly target Uranium sol'n Target Sol'n Preparation/ sol'n Adjustment no Gas Treatment irradiated uranium Gaseous Waste 99 Mo Extraction Clean-up? Systems sol'n Solid Waste Target Sol'n Cleanup (UREX) Radwaste Systems spent columns, effluent ⁹⁹Mo Purification (LEU-modified glassware, effluent, columns Cintichem) **Product Packaging** Purified ⁹⁹Mo Product

Figure 19.2.2-1 - Isotope Production System High-Level Flow Diagram

Figure 19.2.3-1 – Water Balance Diagram

Proprietary Information – Withhold from public disclosure under 10 CFR 2.390(a)(4)