ENVIRONMENTAL GENERAL NOTES:

1. IF CONSTRUCTION IS TO OCCUR DURING THE MIGRATORY BIRD NESTING SEASON (BETWEEN APRIL 1 AND AUGUST 31), THE CONTRACTOR SHALL FOLLOW CDOT'S PROJECT SPECIAL PROVISION 240- PROTECTION OF MIGRATORY BIRDS WHICH REQUIRES A SURVEY ALSO, IF CONSTRUCTION IS TO OCCUR BETWEEN THE NESTING SEASON FOR WESTERN BURROWING DWLS (MARCH 15 AND OCTOBER 31), THE CONTRACTOR SHALL FOLLOW CDOT'S PROJECT SPECIAL PROVISION 240 (BLACK-TAILED PRAIRIE DOG MANAGEMENT (WESTERN BURROWING OWL), WHICH REQUIRES A SURVEY. THE CDOT PROJECT ENGINEER SHALL DESIGNATE A QUALIFIED BIOLOGIST TO PERFORM THE SURVEYS.

IF MIGRATORY BIRDS ARE IDENTIFIED, CDOT REGION 2 ENVIRONMENTAL PERSONNEL SHALL COORDINATE WITH THE DESIGN PROJECT MANAGER TO SHOW BIRD NESTS AND POTENTIAL NESTING HABITAT IN THE PLAN. THE CDOT BIOLOGIST SHALL RECORD THE LOCATION OF EACH PROTECTED NEST, BIRD SPECIES, PROTECTION METHODS USED, AND DATE INSTALLED. A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER. THESE PROTECTION METHODS SHALL REMAIN IN PLACE DURING THE NESTING SEASON (BETWEEN APRIL 1 AND AUGUST 31).

- 2. RIPARIAN/ STREAM BANK (SENATE BILL 40) RESOURCES ALONG WILD HORSE DRY CREEK AND WILLIAMS CREEK WILL BE RESTORED, AS NOTED IN THE EROSION CONTROL PLANS. PLANTING OF TREES AND SHRUBS WILL FOLLOW CDOT'S STANDARD SPECIFICATION 214 PLANTING AND PROJECT SPECIAL PROVISION 217 HERBICIDE TREATMENT.
- 3. EROSION CONTROL BEST MANAGEMENT PRACTICES INCLUDED IN THE STORMWATER MANAGEMENT PLAN WILL ADDRESS THE POTENTIAL IMPACTS TO THE PLAINS LEOPARD FROG, NORTHERN LEOPARD FROG AND TRIPLOID COLORADO CHECKERED WHIPTAIL. IF CONSTRUCTION ACTIVITIES ARE TO OCCUR BETWEEN MARCH 1 AND JULY 31 AT SITES THAT CONTAIN HABITAT FOR THE PLAINS LEOPARD FROG AND NORTHERN LEOPARD FROG (WILLIAMS CREEK AND WILD HORSE DRY CREEK), THE CODT STAFF BIOLOGIST AND THE COLORADO PARKS AND WILDLIFE WILL BE CONSULTED PRIOR TO CONSTRUCTION TO DETERMINE ACTIONS NECESSARY TO AVOID AND MINIMIZE IMPACTS. ALSO, APPLICATION OF HERBICIDES NEAR PERMANENT BODIES OF WATER WILL BE RESTRICTED DURING THE PERIOD OF FROG METAMORPHOSIS (JUNE TO AUGUST).

EROSION CONTROL BEST MANAGEMENT PRACTICES INCLUDED IN THE STORMWATER MANAGEMENT PLAN WILL ALSO ADDRESS THE POTENTIAL IMPACTS TO THE MASSASAUGA RATTLESNAKE AND THE TRIPLOID COLORADO CHECKERED WHIPTAIL. IF CONSTRUCTION ACTIVITIES ARE TO OCCUR BETWEEN MARCH 1 AND JULY 31 AT SITES THAT CONTAIN HABITAT FOR THE MASSASAUGA RATTLESNAKE, THE CDOT STAFF BIOLOGIST WILL BE CONSULTED PRIOR TO CONSTRUCTION TO DETERMINE ACTIONS NECESSARY TO AVOID AND MINIMIZE IMPACTS.

- 4. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE AIR POLLUTION EMISSION NOTICE (APEN) OR FUGITIVE DUST CONTROL PLAN APPROVALS REQUIRED BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) AND LOCAL REGULATORY AGENCIES FOR THIS PROJECT (PER SUBSECTION 107.24 OF THE STANDARD SPECIFICATIONS). THE CONTRACTOR SHALL PROVIDE COPY(S) OF THE APPROVED PERMITS OR NOTIFICATIONS TO THE PROJECT ENGINEER PRIOR TO CONSTRUCTION OR COMMENCEMENT OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE APPLICATION FOR AND MANAGEMENT OF THIS PERMIT.
- 5. THE CONTRACTOR SHALL MAINTAIN EQUIPMENT ON A REGULAR BASIS. EQUIPMENT WILL BE SUBJECT TO INSPECTION BY THE ENGINEER TO ENSURE MAINTENANCE. ALSO, THE CONTRACTOR SHALL NOT ALLOW EXCESSIVE IDLING OF INACTIVE FOLIPMENT OR VEHICLES
- 6. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A DUST CONTROL PLAN 30 DAYS PRIOR TO WORK COMMENCEMENT THAT DETAILS METHODS FOR MITIGATION OF FUGITIVE DUST RESULTING FROM THE WORK, INCLUDING DUST FROM THE BRIDGE REMOVAL. THE DUST CONTROL PLAN SHALL BE APPROVED BY THE ENGINEER PRIOR TO WORK COMMENCEMENT. PREPARATION OF THIS PLAN WILL BE INCLUDED IN ITEM 250 HEALTH AND SAFETY MANAGEMENT.

WATER SHALL BE USED AS A DUST PALLIATIVE AS DETAILED IN COOT STANDARD SPECIFICATION 209 WHERE REQUIRED. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. WATER FOR A DUST PALLIATIVE WILL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO ITEM 250 HEALTH AND SAFETY MANAGEMENT. CONTAMINATED GROUNDWATER SHALL NOT BE USED AS A DUST PALLIATIVE.

7. THE CONTRACTOR IS ADVISED THAT KNOWN SOIL AND CONTAMINATED GROUNDWATER HAS BEEN IDENTIFIED IN THE EASTERN PORTION OF THE PROJECT LIMITS BETWEEN WILLS BLVD AND THE BURLINGTON NORTHERN SANTA FE RAILROAD TRACKS. IF ANY CONTAMINATED SOILS ARE ENCOUNTERED DURING CONSTRUCTION, THEY SHALL BE REMOVED, STOCKPILES SAMPLED, AND DISPOSED OF IN ACCORDANCE WITH SUBSECTION 250.03(D) OF STANDARD SPECIFICATIONS AND CONTRACTOR'S HEALTH AND SAFETY PLAN. PAYMENT WILL BE IN ACCORDANCE WITH APPLICABLE 250 PAY ITEMS. CONTAMINATED WATER HANDLING WILL BE PAID FOR UNDER FA ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT.

8. THIS PROJECT REQUIRES A COLORADO DISCHARGE PERMIT SYSTEM CONSTRUCTION DEWATERING PERMIT. THE CONTRACTOR SHALL OBTAIN THE DEWATERING PERMIT PRIOR TO CONSTRUCTION. OBTAINING THE PERMIT WILL BE INCLUDED IN ITEM 250- ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT.

- 9. THIS PROJECT REQUIRES A COLORADO DISCHARGE PERMIT SYSTEM STORMWATER CONSTRUCTION PERMIT (CDPS-SCP). ALL PERMIT REQUIREMENTS SHALL BE ADHERED TO BY THE CONTRACTOR. CDOT WILL OBTAIN THE CDPS-SCP PRIOR TO ADVERTISEMENT AND TRANSFER TO THE CONTRACTOR. OBTAINING THE PERMIT WILL BE INCLUDED IN ITEM 250- ENVIRONMENTAL HEALTH AND SAFETY.
- 10. WETLANDS EXIST WITHIN THE LIMITS OF THE PROJECT AS SHOWN ON SHEETS ENV-4 THROUGH ENV-6. TEN DAYS PRIOR TO MOBILIZATION, THE CDOT ENGINEER WILL BE NOTIFIED, WHO WILL SCHEDULE WITH A QUALIFIED BIOLOGIST FOR A WETLANDS / RIPARIAN FIELD REVIEW. THE QUALIFIED BIOLOGIST WILL LOCATE AND DELINEATE WITH MARKERS, SUCH AS PIN FLAGS, SENSITIVE RIPARIAN AND / OR WETLAND AREAS TO AVOID AND / OR PROTECT. ONCE THE ABOVE RIPARIAN / WETLAND AREAS ARE MARKED, THE CONTRACTOR SHALL INSTALL SAFETY BARRIER FENCING (ORANGE FENCING) TO PROTECT WETLANDS / RIPARIAN AREAS FROM CONSTRUCTION ACTIVITIES.

11. IF HISTORICAL OR ARCHAEOLOGICAL MATERIALS ARE ENCOUNTERED OR UNEARTHED DURING CONSTRUCTION, WORK WILL BE HALTED IMMEDIATELY IN THE VICINITY OF THE FIND. THE COOT ENGINEER WILL CONTACT THE COOT CULTURAL RESOURCES SPECIALIST PROMPTLY. THE PROCESS IS OUTLINED IN SUBSECTION 107.23 OF COOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR PROCEDURES REGARDING UNEXPECTED DISCOVERIES DURING CONSTRUCTION.

- 12. THE CONTRACTOR IS ADVISED THERE ARE AREAS OF PALEONTOLOGICAL CONCERN WITHIN THE LIMITS OF THE PROJECT. IF ANY SUB-SURFACE FOSSILS OR OTHER POTENTIALLY SIGNIFICANT FOSSILS ARE FOUND ANYWHERE WITHIN THE US 50 WEST PROJECT LIMITS DURING CONSTRUCTION, WORK IN THE IMMEDIATE VICINITY OF THE FIND SHALL BE TEMPORARILY SUSPENDED. THE CDOT PROJECT ENGINEER WILL NOTIFY THE CDOT PALEONTOLOGIST TO ASSESS THE SIGNIFICANCE OF THE FIND AND MAKE FURTHER RECOMMENDATIONS. THE PROCESS IS OUTLINED IN SUBSECTION 107.23 OF CDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR PROCEDURES REGARDING UNEXPECTED DISCOVERIES DURING CONSTRUCTION.
- 13. THE CONTRACTOR SHALL FOLLOW CDOT'S PROJECT SPECIAL PROVISION 240 BLACK-TAILED PRAIRIE DOG MANAGEMENT (WESTERN BURROWING DWL) FOR ALL ACTIVITIES THAT AFFECT BLACK TAILED PRAIRIE DOGS WITHIN THE PROJECT FOOTPRINT. CDOT'S BTPD POLICY IS AVAILABLE TO THE CONTRACTOR UPON REQUEST.
- 14. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS AND CROSS SECTIONS. THE CDOT PROJECT ENGINEER WILL CONTACT THE CDOT ENVIRONMENTAL STAFF IF ANY DISTURBANCE BEYOND THESE LIMITS IS EXPECTED TO OCCUR.
- 15. THE CONTRACTOR SHALL CONSIDER THE SCHEDULE FOR NIGHT WORK TO MINIMIZE WORK WITHIN 500 FEET OF RESIDENCES THAT MAY BE IMPACTED BY TEMPORARY LIGHTING OR CONSTRUCTION NOISE.

16. NOXIOUS WEED MANAGEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL FOLLOW THE PROCEDURES IDENTIFIED IN THE PROJECT SPECIAL PROVISION 217 - HERBICIDE TREATMENT. IN ADDITION TO THE SPECIFIC MANAGEMENT ACTIONS LISTED IN PROJECT SPECIAL PROVISION 217 - HERBICIDE TREATMENT, THE FOLLOWING PREVENTATIVE MEASURES SHALL BE IMPLEMENTED TO MINIMIZE THE SPREAD OF NOXIOUS WEEDS IN CONSTRUCTION AREAS:

- THE AREA OF GROUND DISTURBANCE SHALL BE KEPT TO THE MINIMUM NECESSARY.
- IMPORTED TOPSOIL SHALL BE WEED FREE.
- AREAS WITH DENSE NOXIOUS WEED POPULATIONS SHALL NOT BE USED FOR TOPSOIL SALVAGE.
- ALL AREAS PLANNED FOR TOP SOIL SALVAGE SHALL BE TREATED FOR NOXIOUS WEEDS PRIOR TO SALVAGE.
- ONLY HERBICIDES APPROVED FOR USE IN WATER SHALL BE USED IN OR WITHIN 25 FEET OF WETLANDS OR OTHER WATER FEATURES.
- BROADCAST HERBICIDE SPRAYING WILL ONLY BE APPROVED THROUGH WRITTEN CONSENT OF THE ENGINEER AND SHALL BE APPLIED WHEN WEATHER CONDITIONS (INCLUDING WIND) ARE SUITABLE FOR SUCH WORK.
- ENGINEER SHALL BE NOTIFIED 24 HOURS PRIOR TO HERBICIDE APPLICATION.

17. CDOT PROPERTY MANAGMENT HAS PREVIOUSLY TESTED STRUCTURES FOR LEAD BASED PAINT. DUE TO THE PRESENCE OF LEAD CONTAINING PAINT IN THE BNSF BRIDGE ON THE EAST SIDE OF THE PROJECT AND THE BRIDGE OVER WILDHORSE DRY CREEKTHE REGULATED MATERIALS SHALL BE MANAGED WIN ACCORDANCE WITH CDOT STANDARD SPECIFICATION 250.04 HEAVY METAL BASED PAINT MANANGEMENT.

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NOXIOUS WEEDS TREATMENT INFORMATION

NOXIOUS WEED	TREATMENT NAME	AREA (S.Y.)
HOARY CRESS (HC)	METSULFURON	85
LEAFY SPURGE (LS)	AMINOPYRALID	25
PERENNIAL PEPPERWEED (PP)	GLYPHOSATE	35
TAMARISK (T)	TRICLOPYR	1085

APPROXIMATE SUMMARY OF ENVIRONMENTAL QUANTITIES

ITEM NO	NAME	AMOUNT	PAY UNIT
214-01015	WILLOW CUTTING	1100	EA
214-00145	PLANT PROTECTION FENCE	1000	LF
217-00015	NOXIOUS WEED MANAGEMENT	1230	SY
240-00010	REMOVAL OF NESTS	10	HOUR
240-00020	NETTING	50	SY
250-00010	ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT	1	LS
250-00050	MONITORING TECHNICIAN	40	HR
250-00110	HEALTH AND SAFETY OFFICER	40	HR
250-00120	MATERIALS SAMPLING + DELIVERY	5	EA
250-00200	MATERIAL HANDLING (STOCKPILE)	50	CY
250-00210	SOLID WASTE DISPOSAL	50	CY
250-00220	HAZARDOUS WASTE DISPOSAL	50	CY
F/A 700-70035	PRAIRIE DOG MANAGEMENT	1	F.A.
F/A 700-70589	ENVIRONMENTAL HEALTH AND SAFETY	1	F.A.

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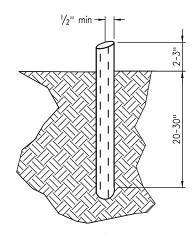
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SHRUB AND SEED MIX (WILLIAMS CREEK ONLY)

COMMON NAME	SCIENTIFIC/BOTANICAL NAME	PLS/ACRE
MARSH MILKWEED	ASCLEPIAS INCARNATA	1.5
FOURWING SALTBUSH	ATRIPLEX CANESCENS	1.5
SALTGRASS	DISTICHLIS SPICATA	0.5
GOLDEN CURRANT	RIBES AUREUM	0.75
WOOD'S ROSE	ROSA WOODSII	1.5
THREE-SQUARE BULRUSH	SCHOENOPLECTUS PUNGENS	0.5
ALKALI SACATON	SPOROBOLUS AIROIDES	0.25
OATS (COVER CROP)* -OR-	AVENA SATIVA (SPRING)	3
REGREEN (COVER CROP)*	TRITICUM AESTIVUM	3
TOTAL		29

WILLOW CUTTINGS (NOT TO SCALE)

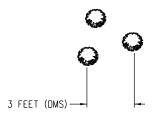


CUTTING MIN. OF 1/2 INCH DIAMETER CUT OFF EXPOSED LENGTH 2" TO 3" ABOVE GROUND

PLACE CUTTING A MINIMUM OF 20"-30" INTO THE SOIL. CUTTING SHALL BE PLACED AS DIRECTEDIN MOIST AREAS.

WILLOW CUTTINGS SHALL BE PLACED 3'O.C. IN THE SPRING WHILE DORMANT. CUTTINGS SHALL BE PLANTED TO A MINIMUM DEPTH OF 20" TO PREVENT WILLOW CUTTINGS FROM WASHING DOWNSTREAM IN STORM EVENTS. HOLES SHALL BE BACKFILLED WITH NATIVE MATERIAL AND WATERED TO ENSURE NO AIR POCKETS REMAIN.

RANDOM PLANT SPACING - PLAN VIEW (NOT TO SCALE)



- 1. PLANTS ARE ARRANGED IN RANDOM CLUSTERS CONSISTING OF MULTIPLE SPECIES IN A NON-CHECKER BOARD PATTERN.
- 2. SPACING BETWEEN EACH CLUSTER IS DETERMINED BY THE OVERALL MINIMUM SPACE DISTANCE (OMS).
- 3. CLUSTERS, WHENEVER POSSIBLE, SHALL CONSIST OF ODD NUMBERS WITH NO LESS THAN 3 INDIVIDUALS OF ONE SPECIES.

APPROXIMATE SUMMARY OF LANDSCAPING QUANTITES

ITEM NO	NAME	AMOUNT	PAY UNIT
212-00005	SEEDING (NATIVE)	1	AC
214-01015	WILLOW CUTTING	1100	EA
214-00145	PLANT PROTECTION FENCE	1000	LF

Region 2

WILLOW CUTTINGS AND WETLAND SEEDING WILD HORSE DRY CREEK ONLY

COMMON NAME	SCIENTIFIC/BOTANICAL NAME	PLS/ACRE
MARSH MILKWEED	ASCLEPIAS INCARNATA	1
SALTGRASS	DISTICHLIS SPICATA	0.5
THREE-SQUARE BULRUSH	SCHOENOPLECTUS PUNGENS	0.5
ALKALI SACATON	SPOROBOLUS AIROIDES	0.25
SANDBAR WILLOW	SALIX INTERIOR	1,100 (CUTTINGS)
OATS (COVER CROP)* -OR-	AVENA SATIVA (SPRING)	1.5
REGREEN (COVER CROP)*	TRITICUM AESTIVUM	1.5
TOTAL		3.75

GRASSES (WILD HORSE DRY CREEK ONLY)

COMMON NAME	SCIENTIFIC/BOTANICAL NAME	PLS/ACRE
DESERT INDIGO BRUSH	AMORPHA FRUITCOSA	1.5
FOURWING SALTBUSH	ATRIPLEX CANESCENS	1.5
RUBBER RABBITBRUSH	CHRYSOTHAMNUS NAUSEOSUS	0.25
SKUNKBUSH SUMAC	RHUS TRILOBATA	1.5
GOLDEN CURRANT	RIBES AUREUM	0.25
WOOD'S ROSE	ROSA WOODSII	1.5
DATS (COVER CROP)* -OR-	AVENA SATIVA (SPRING)	4
REGREEN (COVER CROP)*	TRITICUM AESTIVUM	4
TOTAL		10.5

SEED MIX- GRASSES WILD HORSE DRY CREEK ONLY

_ ,	
SCIENTIFIC/BOTANICAL NAME	PLS/ACRE
BUCHLOE DACTYLOIDES	5
BOUTELOUA GRACILLIS	3
SCHIZACHYRIUM SCOPARIUM	5
SPOROBOLUS CRYPTANDRUS	1.5
STIPA VIRIDULA	3
AVENA SATIVA (SPRING)	8
TRITICUM AESTIVUM	8
	23.5
	BUCHLOE DACTYLOIDES BOUTELOUA GRACILLIS SCHIZACHYRIUM SCOPARIUM SPOROBOLUS CRYPTANDRUS STIPA VIRIDULA AVENA SATIVA (SPRING)

* CHOOSE ONE COVER CROP

REFER TO SWMP SHEETS FOR SEED MIX TO BE USED IN ALL UPLAND AREAS OF PROJECT

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Colorado Department of Transportation

Pueblo, CD 81001 Phone: 719-562-5509 FAX: 719-546-5702

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