# LIBERTY TREE ACADEMY - PHASE 2 **CONSTRUCTION DOCUMENTS**



TOWN OF PEYTON, EL PASO COUNTY

FINAL DESIGN DECEMBER 2020

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#### LAND USE SUMMARY

PARCEL AREA:	10.7 acres
PROJECT AREA (PHASE 1):	3.4 acres
PROJECT AREA (PHASE 2):	1.3 acres
BUILDING AREA (PHASE 1):	41,585 sf
BUILDING AREA (PHASE 2):	14,614 sf
FAR:	0.28

LANDSCAPE ARCHITECT

1601 BLAKE STREET, SUITE 200

CONTACT: TERESA ROBERSON

TERESA ROBERSON@MATRIXDESIGNGROUP.COM

MATRIX DESIGN GROUP

DENVER, CO. 80202

PH: 303-572-0200

FAX: 303-572-0202

#### **CIVIL ENGINEER**

MATRIX DESIGN GROUP 1601 BLAKE STREET, SUITE 200 DENVER, CO. 80202 PH: 303-572-0200 FAX: 303-572-0202 CONTACT: DAVE KLINE, P.E., PTOE DAVE KLINE@MATRIXDESIGNGROUP.COM

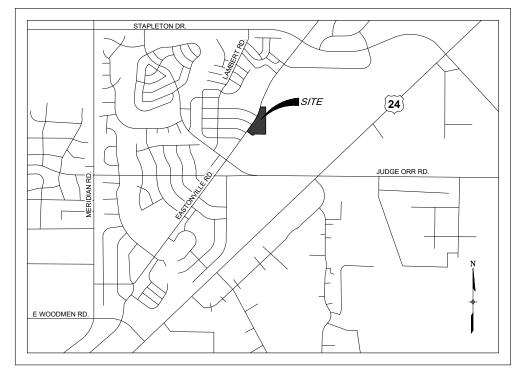
LEGAL DESCRIPTION: LOT 1178, WOODMEN HILLS FILING NO. 10 COUNTY OF EL PASO STATE OF COLORADO

#### BASIS OF BEARING:

BASIS OF BEARINGS: BEARINGS ARE BASED ON GRID BEARINGS OF THE COLORADO STATE PLANE CENTRAL ZONE, BASED ON THE EAST LINE OF LOT 1178 OF THE PLAT OF WOODMEN HILLS FILING NO. 10 AS RECORDED ON JULY 13, 2001 IN THE OFFICE OF THE EL PASO COUNTY CLERK AND RECORDER UNDER RECEPTION NUMBER 201098618, MONUMENTED ON THE NORTH END BY A FOUND 2-1/2" ALUMINUM CAP STAMPED "PLS 38160" AND ON THE SOUTH END BY A FOUND 1-1/2" ALUMINUM CAP STAMPED "PLS 32822" AND BEARS SOUTH 00°24'21" EAST A DISTANCE OF 1116.46 FEET.

#### **BENCHMARK:**

BENCHMARK IS DERIVED FROM AN ONLINE POSITIONING USER SERVICE PROVIDED BY THE NATIONAL GEODETIC SURVEY PERFORMED ON A SET #5 REBAR LOCATED ON THE EAST SIDE OF EASTONVILLE ROAD NEAR THE SOLITH PCR APPROXIMATELY 20 FEET SOLITH OF A SANITARY MANHOLE AND 12 FEET EAST OF A FIRE HYDRANT. THE ELEVATION DERIVED FROM THE STATIC SOLUTION IS 6960.52 U.S. SURVEY FEET (NAVD 88)



#### **LOCATION MAP**

#### **DESIGN ENGINEER'S STATEMENT:**

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS. AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS

12/11/2020 DATE

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS

LIBERTY TREE ACADEMY BUILDING CORPORATION

# **IBERTY TREE** ACADEMY

# LIBERTY TREE ACADEMY - PHASE 2

TOWN OF PEYTON, EL PASO COUNTY CONSTRUCTION DOCUMENTS, PCD FILE NO. PPR-20-018

TITLE SHEET

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#### OWNER/DEVELOPER'S STATEMENT:

E	FIRE DEPARTME
	PREPARED FOR:

**Matrix** 

#### No. DATE REVISIONS COMPUTER FILE MANAGEMENT FILE NAME: R:\20.995.002 (Liberty Tree Academy Additional Svcs)\Dwg\Sheets\CDs\TS01\_PH2.dwg LOT DATE: December 8, 2020 4:17:05 PM

# **LIBERTY** PEYTON **ACADEMY** (83) E WOODMEN RD COLORADO

#### **EL PASO COUNTY:**

MONUMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT

VICINITY MAP

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS. THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL. INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. COUNTY ENGINEER / ECM ADMINISTRATOR

**FALCON FIRE DEPARTMENT:** 

ACCORDING TO THE MODELED CALCULATIONS REVIEWED BY THE GOVERNING WATER DISTRICT AND/OR COLORADO REGISTERED CIVIL ENGINEER/DESIGNER; THE THEORETICAL AVAILABLE FIRE FLOW AT NODE GALLONS PER MINUTE UNDER MAXIMUM DAILY DEMAND CONDITIONS AT 20PSI RESIDUAL.

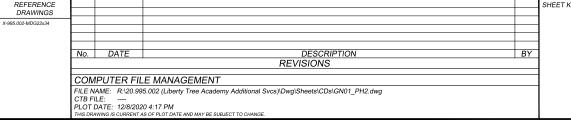
UPON DETAILED REVIEW OF THE AVAILABLE WATER SUPPLY. FIRE HYDRANT LOCATIONS AND HOSE LAY DISTANCES, THESE PLANS ARE HEREBY CONSIDERED APPROVED

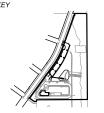
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# Know what's below. Call before you dig

#### **GENERAL CONSTRUCTION PLAN NOTES:**

- . ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL
  EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION.
  LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO
  CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- 3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
- a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
- b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
- d. CDOT M & S STANDARDS
- 4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- 6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- 8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- 9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD
- 10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- 11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- 12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
- 13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DPW (DEPARTMENT OF PUBLIC WORKS) AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
- 14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW (DEPARTMENT OF PUBLIC WORKS), INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- 15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.









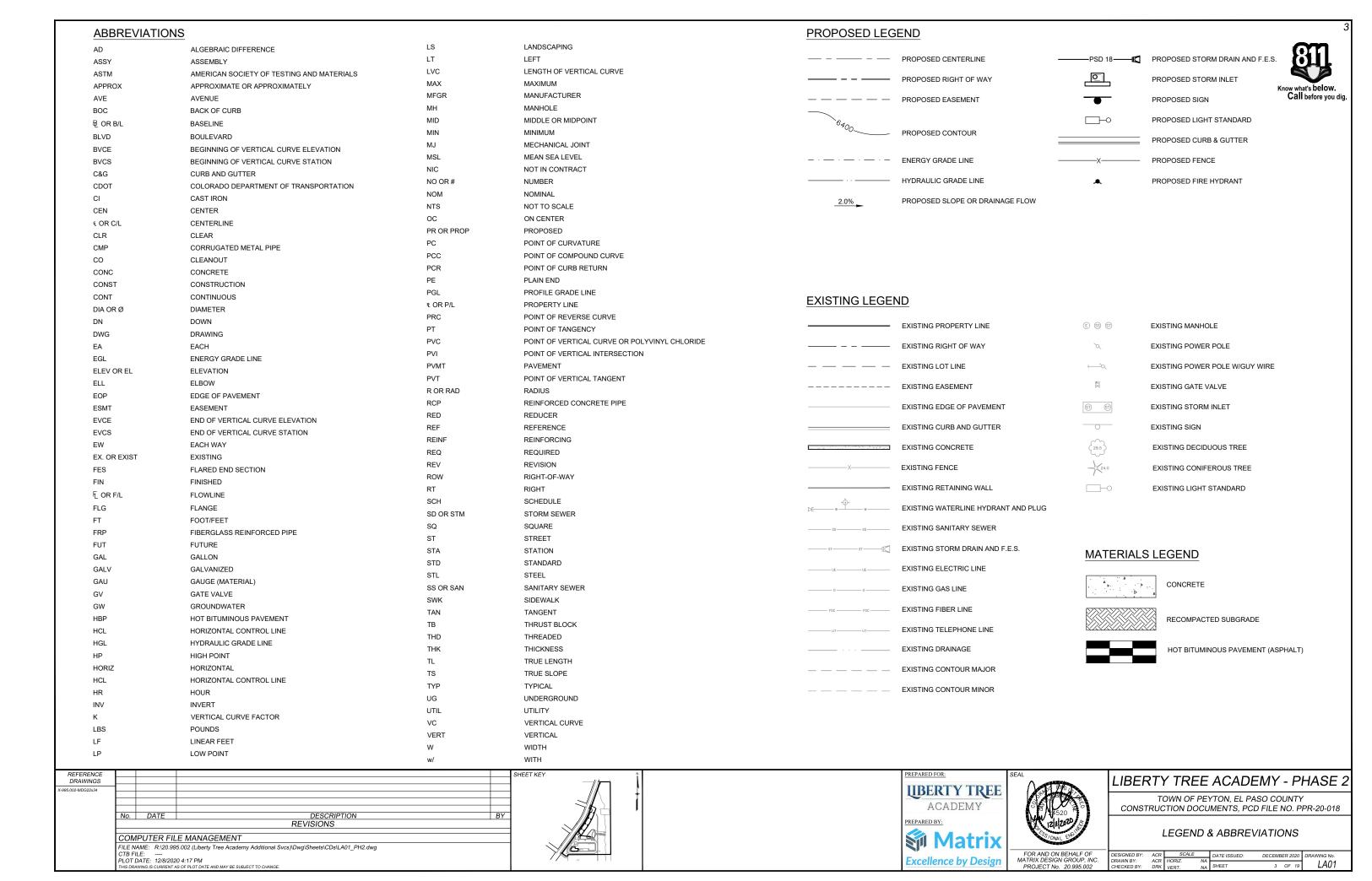


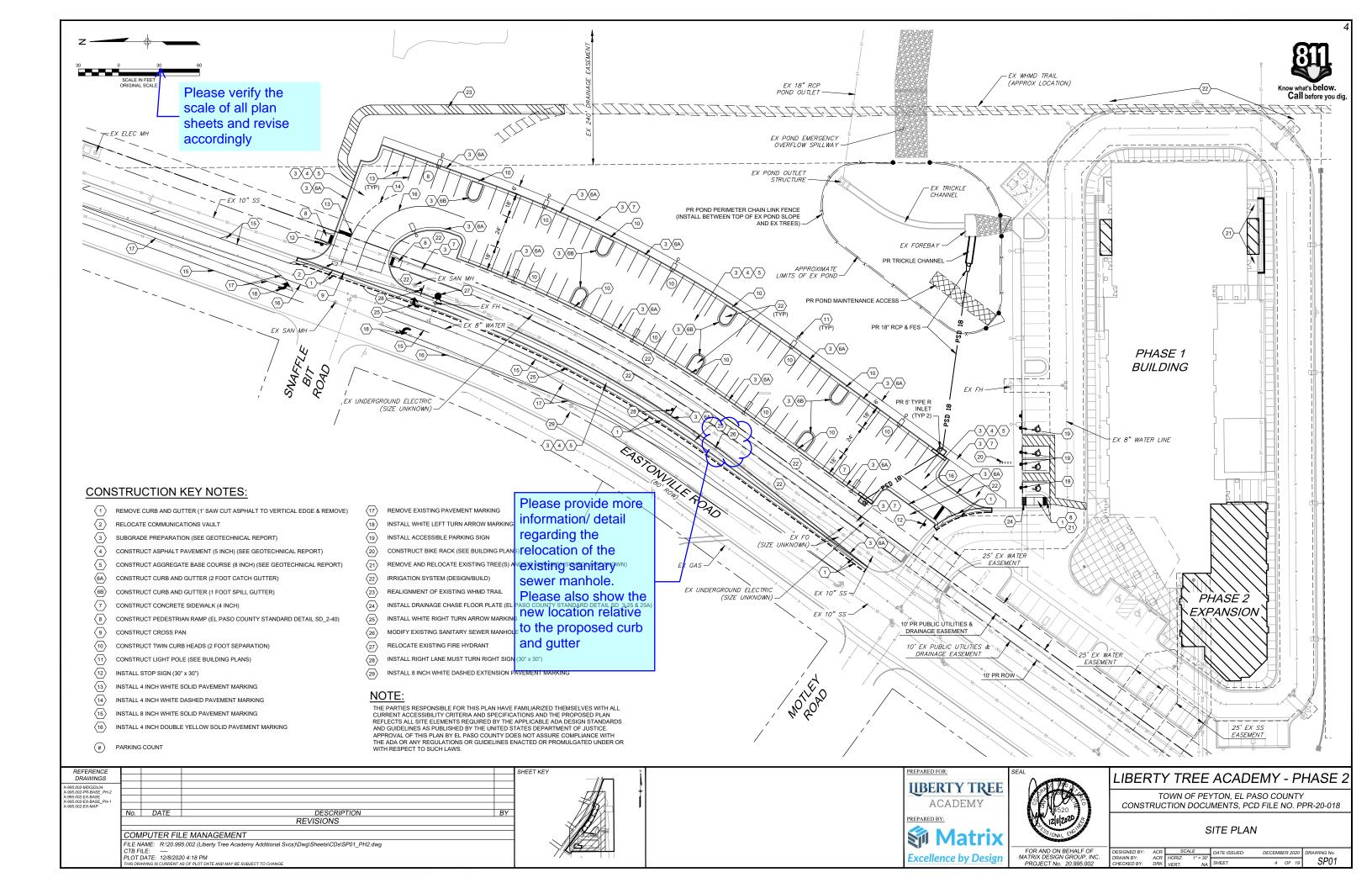
#### LIBERTY TREE ACADEMY - PHASE 2

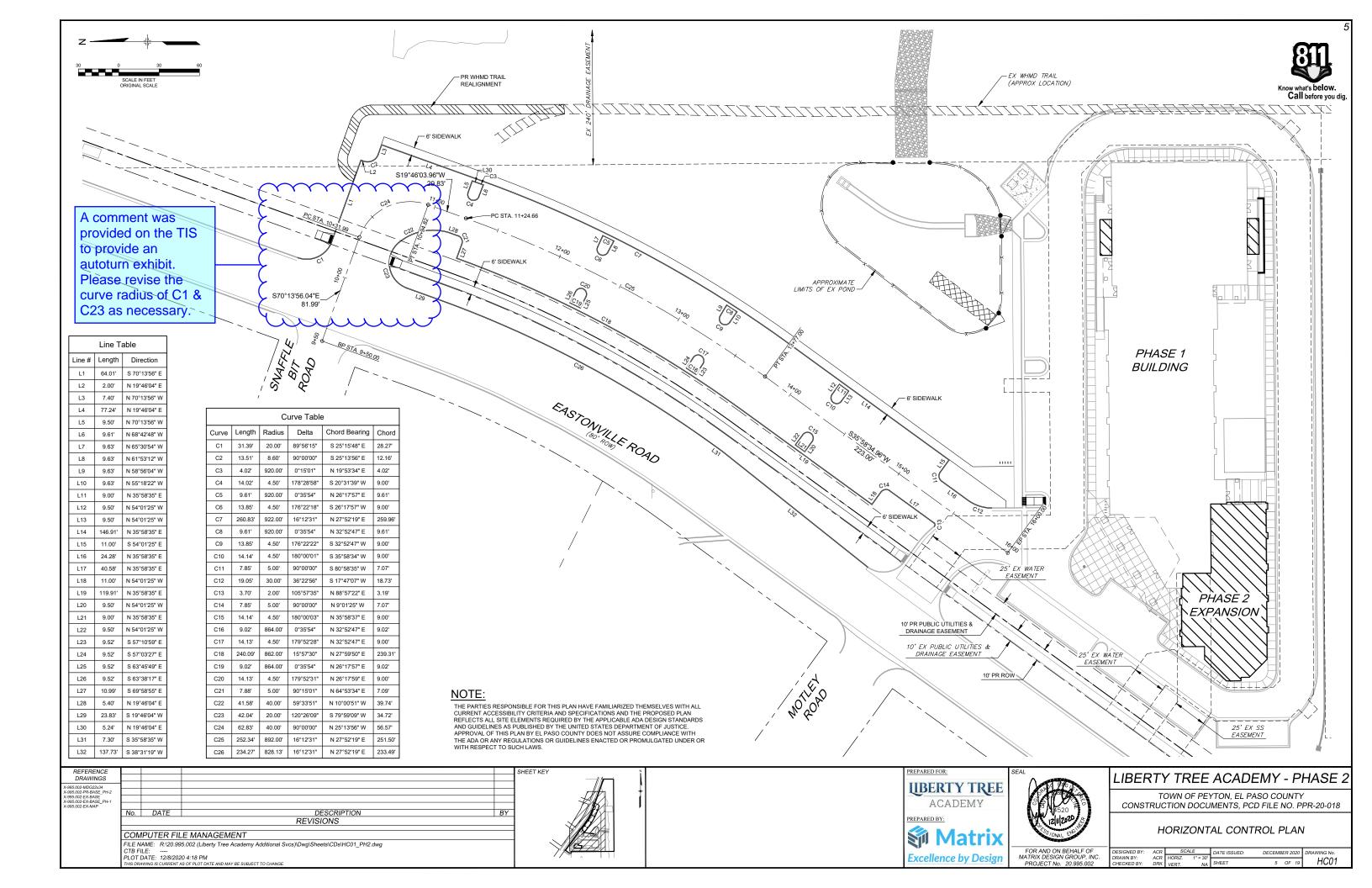
TOWN OF PEYTON, EL PASO COUNTY CONSTRUCTION DOCUMENTS, PCD FILE NO. PPR-20-018

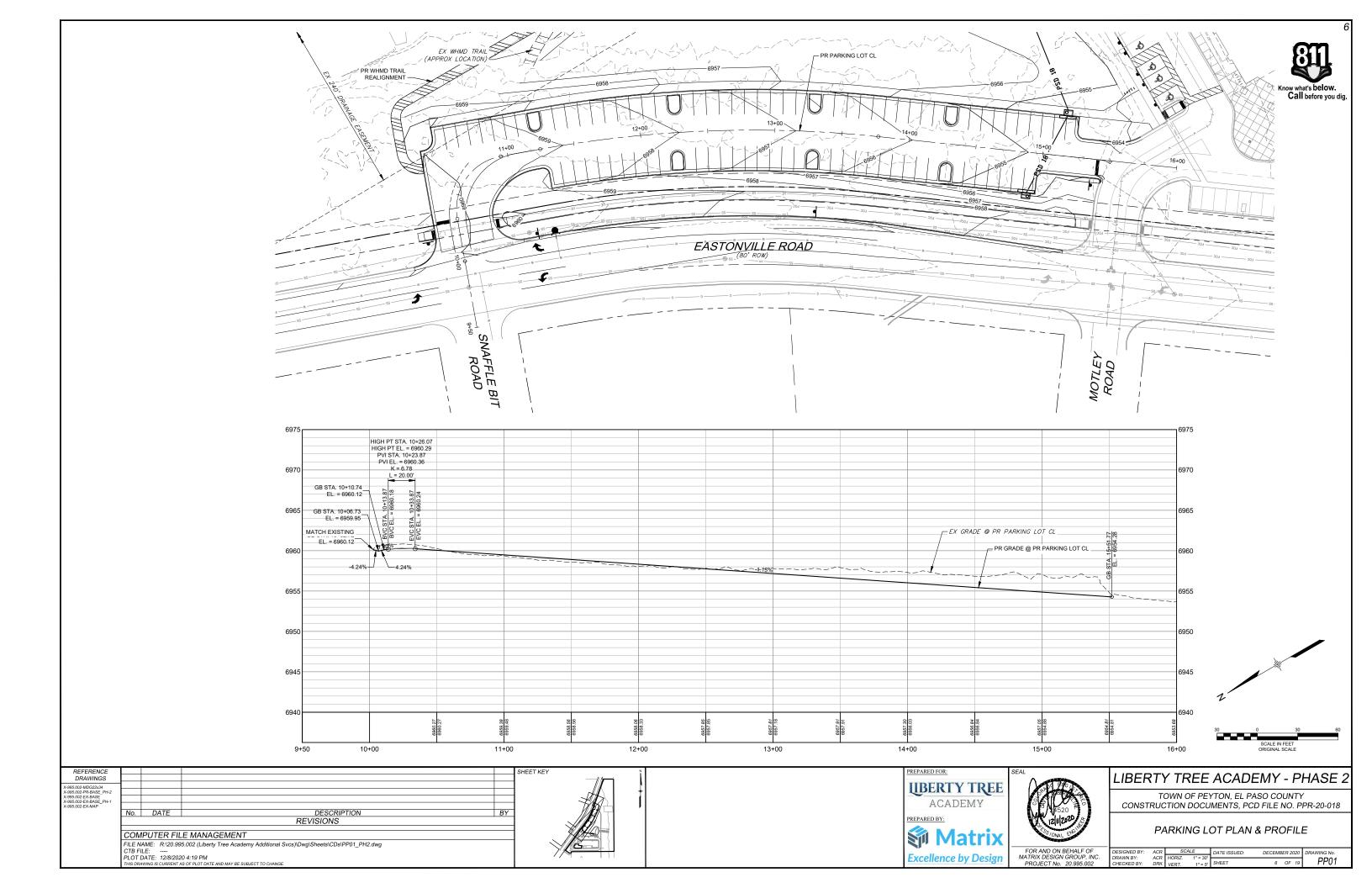
GENERAL NOTES

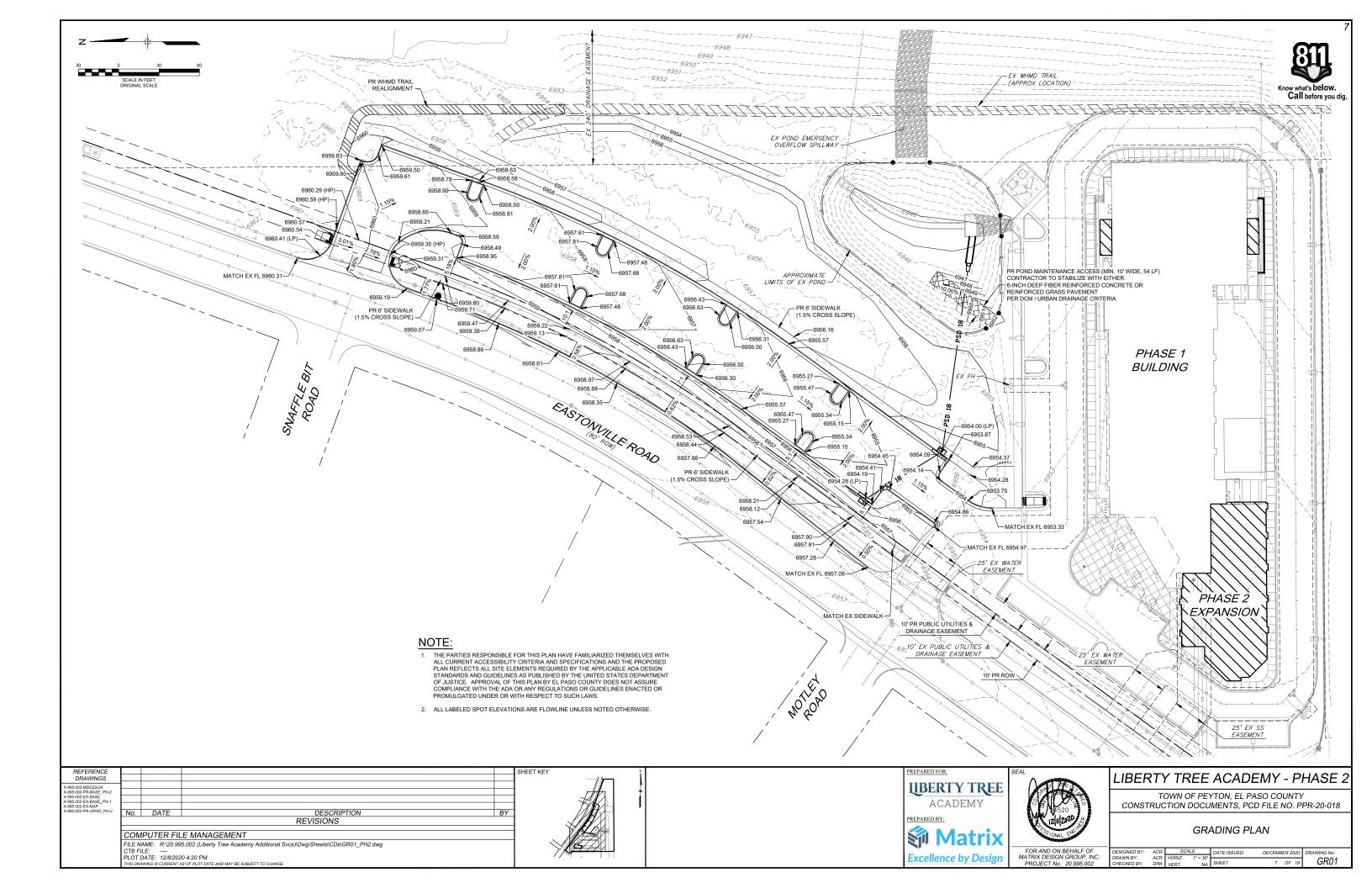
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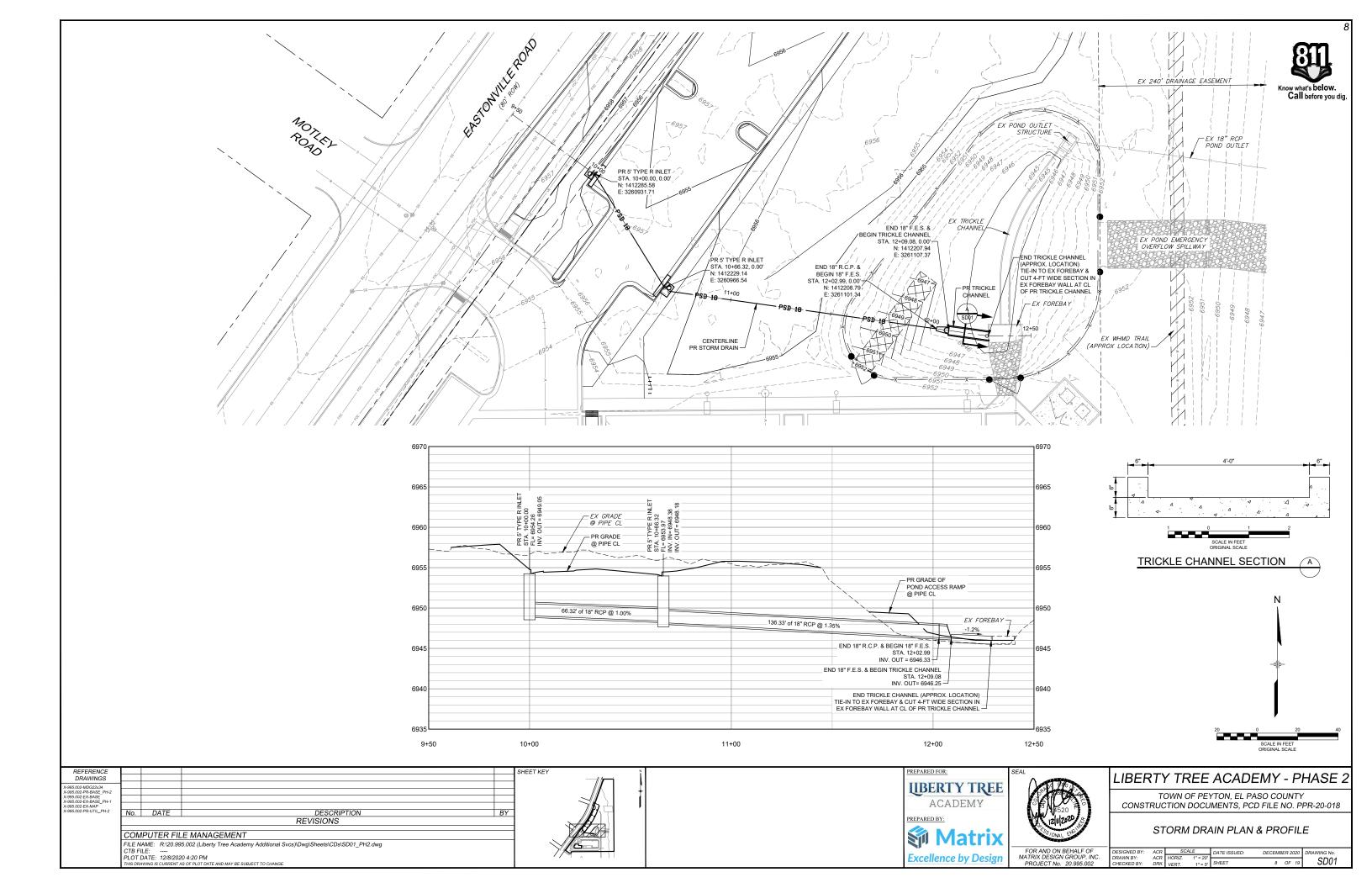












- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS,
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE
- 4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- 6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- 8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- 10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL FROSION AND RESULTING SEDIMENTATION, ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED
- 11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- 12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE

- 13 CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE
- 15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED. OR DISCHARGED AT THE SITE.
- 17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED IECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES
- 18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- 19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS. STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- 21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- 22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS N EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS. ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES
- 23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES
- 24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.
- 25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION
- 26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- 27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND
- 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY EARTH ENGINEERING CONSULTANTS, LLC ON APRIL 12, 2018, AND SHALL BE CONSIDERED A PART OF THESE PLANS
- 29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART, FOR INFORMATION OR APPLICATION MATERIALS CONTACT

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT WATER QUALITY CONTROL DIVISION WQCD - PERMITS 4300 CHERRY CREEK DRIVE SOUTH DENVER, CO 80246-1530 ATTN: PERMITS UNIT

No. DATE REVISIONS COMPUTER FILE MANAGEMENT FILE NAME: R:\20.995.002 (Liberty Tree Academy Additional Svcs)\Dwg\Sheets\CDs\ECGN\_PH2.dwg LOT DATE: 12/8/2020 4:21 PM





Excellence by Desig



FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

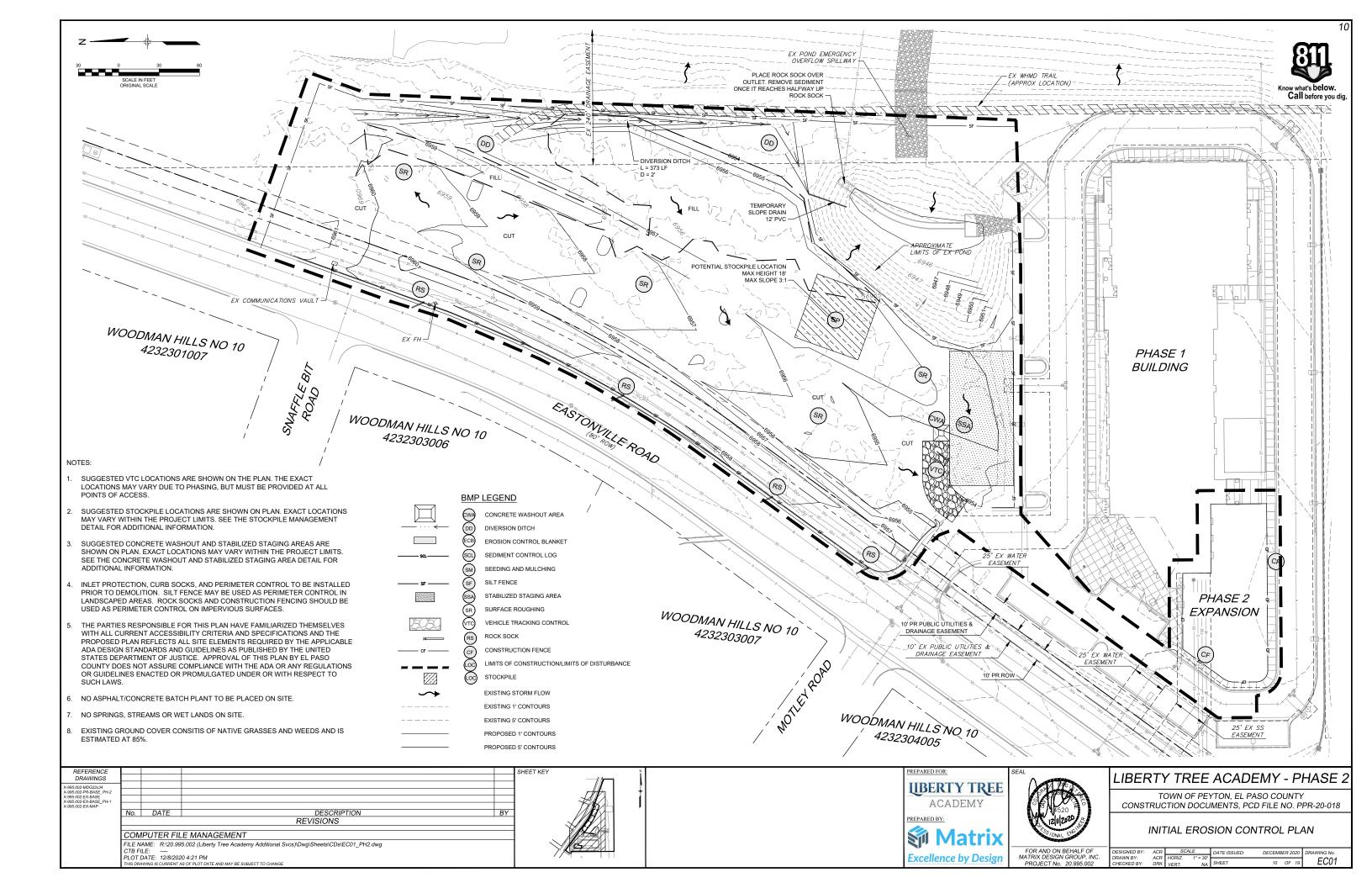
**EROSION CONTROL GENERAL NOTES** 

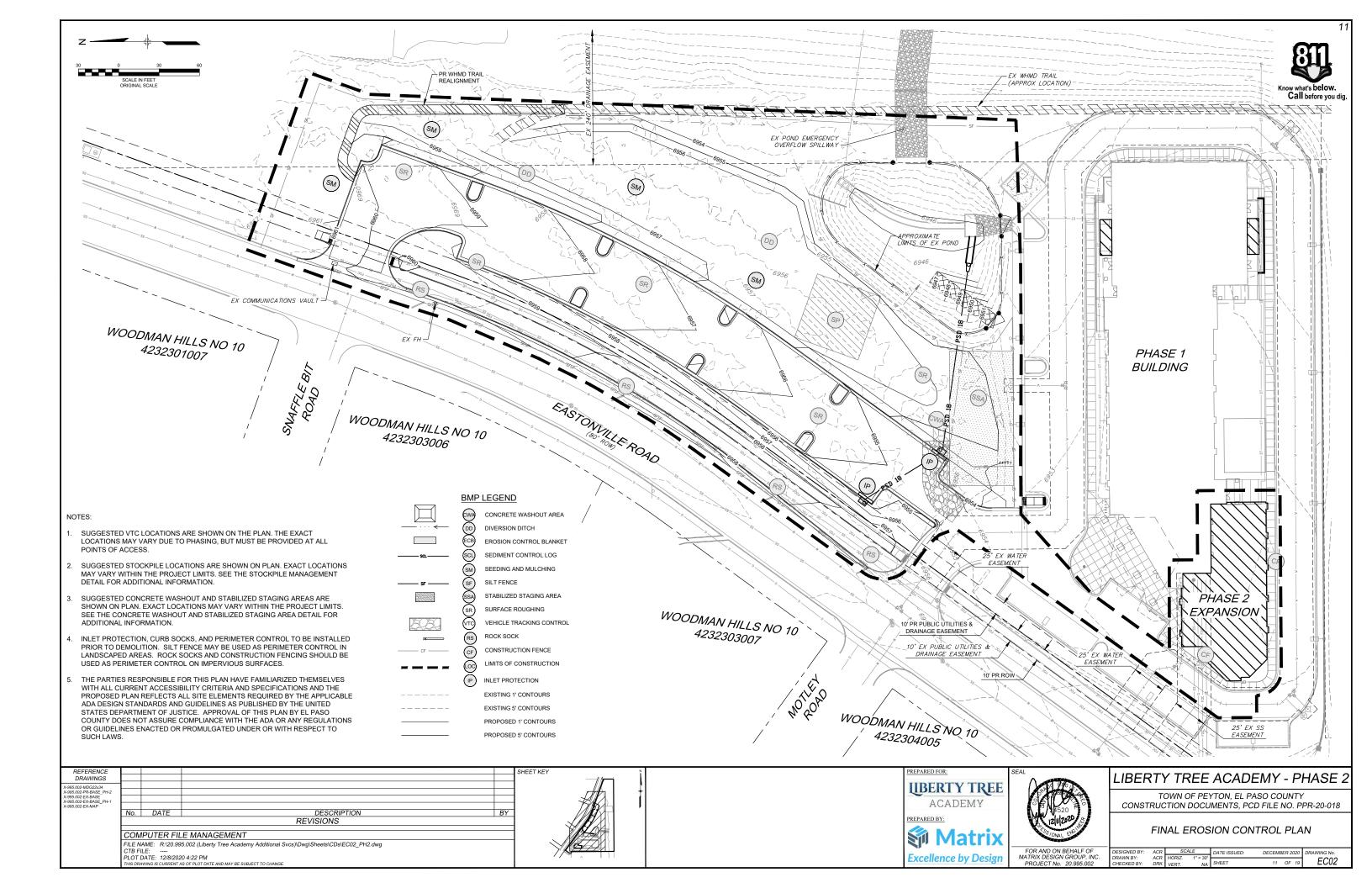
LIBERTY TREE ACADEMY - PHASE 2

TOWN OF PEYTON, EL PASO COUNTY

CONSTRUCTION DOCUMENTS, PCD FILE NO. PPR-20-018

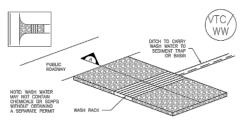
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#### SM-4 **Vehicle Tracking Control (VTC)**



6'7" MIN. ED CONCRETE RACK MARKET SECTION A

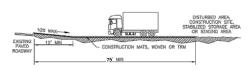
VTC-2. AGGREGATE VEHICLE TRACKING CONTROL WITH WASH RACK

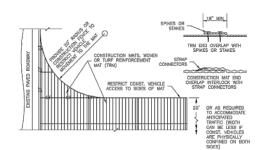
Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

November 2010

#### **Vehicle Tracking Control (VTC)**







VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

VTC-5

**SM-4** 

#### SM-4

#### **Vehicle Tracking Control (VTC)**

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

SEE PLAN VIEW FOR

-LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).

-TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH,
CONSTRUCTION MAT OR TRM).

CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS. 4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

 UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK. STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

INSPECT BMP8 EACH WORKDAY, AND MANTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMP8 SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMP8 AS SOON AS
POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE
EROSION, AND PERFORM NECESSARY MAINTENANCE.

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. Where  $\mathrm{BMP}_{9}$  have failed, repair or replacement should be initiated upon discovery of the failure.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

S. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING, SEDIMENT MAY NOT BE WASHED DRIVEN STORM STORM STORM STORM.

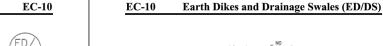
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

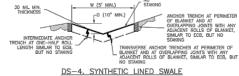
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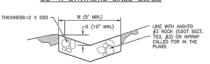
VTC-6

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

November 2010







DS-5. RIPRAP LINED SWALE

EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES

- 1. SEE SITE PLAN FOR:

   LOCATION OF DIVERSION SWALE

   TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED).

   LENGTH OF EACH SWALE.

   DEPTH, D, AND WIGHT, W DIMENSIONS.

   FOR ECG/TRAI LINED DITCH, SEE ECB DETAIL.

   FOR REPAPA LINED DITCH, SIZE OF REPAPA, DSO.
- SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCEEDING 2—YEAR FLOW RATE OR 10 CFS.
- 3. EARTH DIKES AND SWALES INDICATED ON SWIMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY.
- 4. EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698. 5. SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.
- 6. FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL.
- 7. WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES.

#### Earth Dikes and Drainage Swales (ED/DS)

EARTH DIKE AND DRAINAGE SWALE MAINTENANCE NOTES.

INSPECT BMP# EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION, MAINTENANCE OF BMP# SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMP# AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE ENGISION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROGURIA.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.

5. WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL MIRRORICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

#### Mulching (MU)

Description

EC-4

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers netting or other measures. Mulching helpi reduce erosion by protecting bare soil from rainfall impact, incr infiltration, and reducing runoff. Although often applied in conjunc with temporary or permanent seeding, it can also be used for temporary

stabilization of areas that cannot be

reseeded due to seasonal constraint

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.

Photograph MU-1. An area that was recently seeded, mulched, and crimped.

#### Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on protinos of the size not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

#### **Design and Installation**

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soll year.

A variety of mulches can be used effectively at construction sites. Consider the following:

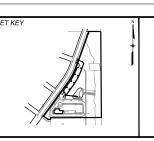
Mulch Erosion Control Sediment Control Yes Moderate Site/Material Management No

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DS-3. ECB LINED SWALE (CUT AND FILL OR BERM)

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3



REPARED FOR: **UBERTY TREE** ACADEMY



FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

TOWN OF PEYTON, EL PASO COUNTY CONSTRUCTION DOCUMENTS, PCD FILE NO. PPR-20-018

LIBERTY TREE ACADEMY - PHASE 2

**EROSION CONTROL DETAILS** 

SIGNED BY: ACR SCALE DATE ISSUED: DECEMBER 2020	DRAWING No.
AWN BY: ACR HORIZ. NA	CCDT04
ECKED BY: DRK VERT. NA SHEET 12 OF 19	ECDT01

Know what's below.

Call before you dig.

#### EC-4 Mulching (MU)

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per aere and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for area flater than 3.1. Mechanical crimpers must be enable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.
- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with bay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).
- On small areas sheltered from the wind and heavy runoff, spraying a tackiffer on the mulch is satisfactory
  for holding it in place. For steep slopes and special situations where greater control is needed, erosion
  control blankets anchored with stakes should be used instead of mulch.
- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.
- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas.
   Biodegradable mats made of straw and jute, straw-cocount, coconut fiber, or excelsior can be used instead of mulch. (See the ECMTRM BMF for more information.)
- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)
- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent sabilization. The rock mulch layer should be thick enough to provide full temporary or permanent stabilization. The rock n coverage of exposed soil on the area it is applied.

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

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L=2 x W MIN.

SEDIMENT BASIN PLAN

RIPRAP BEDDING

SECTION A

AT CREST

D50=9" RIPRAP TYPE L.

June 2012

SC-7

SB

#### ROCK SOCK SECTION ROCK SOCK PLAN

1½" (MINUS) CRUSHED ROCK ENCLOSED IN WIRE MESH

Rock Sock (RS)

RS

SIEVE SIZE MASS PERCENT PASSINI SQUARE MESH SIEVES ROCK SOCK JOINTING ROCK SOCK INSTALLATION NOTES

SEE PLAN VIEW FOR:
 -LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS). WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF 8". RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WHE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT  $6^{\prime\prime}$  CENTERS ALONG ALL JOINTS AND AT  $2^{\prime\prime}$  CENTERS ON ENDS OF SOCKS. 5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE. RS-1. ROCK SOCK PERIMETER CONTROL

SC-7

SC-5

(55550)(55555

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#### Rock Sock (RS)

SC-5

SC-7

INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS
POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE
EROSION, AND PERFORM NECESSARY MAINTENANCE.

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. Where  $\mbox{BMP}_{\alpha}$  have falled, repair or replacement should be initiated upon discovery of the failure.

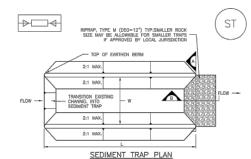
4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

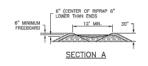
5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BIRP, TYPPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY & OF THE HEIGHT OF THE ROCK SOCK. 6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEDEO AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD) NOTE; MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

#### SC-8 Sediment Trap (ST)





SECTION B

ST-1. SEDIMENT TRAP

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November 2010

## Sediment Basin (SB)

#### **Sediment Basin (SB)**

Area (rounded to	asin Battom Width		
nearest acre), (ac)	(W), (ft)	Spillway Crest Length (CL), (ft)	Hale Dlameter (HD), (in)
1 2 3 4 5 6 7 8 9 101 112 123 145 151 165	12 ½ 218 233 ½ 33 ½ 47 ½ 47 ½ 51 55 58 ½ 61 67 ½ 70 ½ 73 ¼	2 5 6 8 9 11 12 13 15 16 18 19 22 22	952 1766 E 2752 2752 2752 2752 2752 1766 1766 1 766 1 766

SEDIMENT BASIN INSTALLATION NOTES

-FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE NAMETER H.

2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.

3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL. 4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO, 200 SIEVE.

5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.

6. PIPE SCH 40 OR GREATER SHALL BE USED.

7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDMENT BASIN(S) FOR DRAININGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAININGS FOR BURNANCES FOR SPILLARY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BUSIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAININGE AREAS LARGER THAN 15 ACRES.

Sediment Basin (SB)

#### SEDIMENT BASIN MAINTENANCE NOTES

1. MISPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATIVE CONDITION MAINTENANCE OF BMPs SHOULD SE PROCATIVE, NOT PEACTIVE, INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE FORSION AND PERFORM INFERSEASY MAINTENANCE.

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Urban Storm Drainage Criteria Manual Volume 3

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (LE., TWO FEET BELOW THE SPILLWAY CREST).

 SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA.
 STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION. 6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS, CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

#### Sediment Trap (ST)

SC-8

SEDIMENT TRAP INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
-LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP. 2. ONLY USE FOR DRAINAGE AREAS LESS THAN 1 ACRE.

3. SEDIMENT TRAPS SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

4. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM DESS

5. SEDIMENT TRAP OUTLET TO BE CONSTRUCTED OF RIPRAP, TYPE M (D50=12\*) TYP.SMALLER ROCK SIZE MAY BE ALLOWABLE FOR SMALLER TRAPS IF APPROVED BY LOCAL JURISDICTION.

6, THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF THE RIPRAP OUTLET STRUCTURE.

7. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE A MINIMUM OF  $6^{\prime\prime}$  HIGHER THAN THE CENTER OF THE OUTLET STRUCTURE, SEDIMENT TRAP MAINTENANCE NOTES

INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMPs SHOULD BE PROMOTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS
POSSIBLE (AND JUNYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE
EROSION, AND PERFORM NECESSARY MAINTENANCE.

FREDUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING COMDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3, WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. 4. REMOVE SEDIMENT ACCUMULATED IN TRAP AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN THE SEDIMENT DEPTH REACHES & THE HEIGHT OF THE RIPRAP

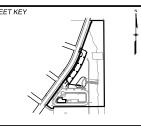
5. SEGIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

6. WHEN SEDIMENT TRAPS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL SECOZO AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

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REPARED FOR: **UBERTY TREE** ACADEMY

PREPARED BY:





FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

**EROSION CONTROL DETAILS** 

LIBERTY TREE ACADEMY - PHASE 2

TOWN OF PEYTON, EL PASO COUNTY

CONSTRUCTION DOCUMENTS, PCD FILE NO. PPR-20-018

SIGNED BY:	ACR	SCALE		DATE ISSUED:	DECEME	BER 2020	DRAWING No.
AWN BY: ECKED BY:	ACR DRK	HORIZ. VERT.	NA NA	SHEET	13	OF 19	ECDT02

# SC-2 **Sediment Control Log (SCL)** - CENTER STAKE IN CONTROL LOG - PLACE LOG AGAINST BACK OF CURB SCL-2. SEDIMENT CONTROL LOG AT BACK OF CURB 9" DIAMETER (MIN) SEDIMENT CONTROL LOG JS DIAM. SCL (TYP.) FLOW

SCL-3. SEDIMENT CONTROL LOG AT SIDEWALK WITH TREE LAWN

SCL-4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

**Sediment Control Log (SCL)** 

SEDIMENT CONTROL LOG INSTALLATION NOTES

1, SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

SEGIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

SC-2

SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RPS, HOUSE AND ORBITUS WEEP.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES, HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY DRAINAGE WAYS

SEDIMENT CONTROL LOG MAINTENANCE NOTES

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROLIGIST.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY % OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT ANNUABLE IN AUTOCOD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT WARY FROM UDFOD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

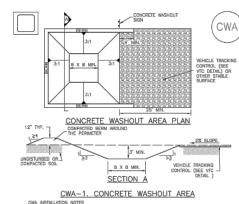
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Silt Fence (SF)

Concrete Washout Area (CWA)

MM-1

Know what's below. Call before you dig



1. SEE PLAN VIEW FOR:
-CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN URLEND CHE WITHIN 400" OF AMY MATURAL DRAWGE PAYMENT ON WITHINGTON OF ANY MATURAL CHEMICAL STREET, STREET,

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP,

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF  $1^{\prime}.$ 6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

CWA MAINTENANCE NOTES

INSPECT BMP® EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMP® SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMP® AS SOON AS
POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

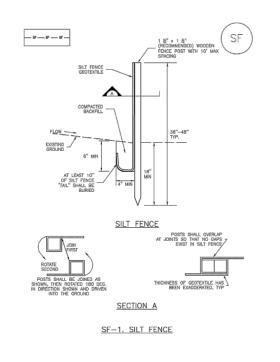
FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING COUNTION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED TROPPLY

3. WHERE  $\mathrm{BMP}_2$  HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

 CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY. 6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION. (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED. Silt Fence (SF)

SC-1



Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

SC-1

SILT FENCE INSTALLATION NOTES.

SLI FENCE MUST BE PLACED MANY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SLIF FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BEF INSTALLATION.

COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING, COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

 SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES, THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR. THE SILT FENCE SHOULD BE TURNED PERFENDICULAR TO THE CONTOUR TO CREATE A "1-400K". THE "1-400K" EXTENDING PERFENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 16" — 20").

SILT FENCE MAINTENANCE NOTES

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 8".

S. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEMINATE CONTROL BANK

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION. NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTE:

SF-4

#### NOTES:

ACCORDING TO NRCS SOILS SURVEY, THE 19-COLUMBINE GRAVELLY SANDY LOAM, 0 TO 3 PERCENT SLOPES IS SOMEWHAT POOR FOR SHALLOW EXCAVATIONS DUE TO UNSTABLE EXCAVATION WALLS. DUE TO THE LIMITATIONS ON THE ABOVE SOIL ON THE SITE, ALTERNATIVES TO MITIGATE THE LIMITATIONS OF THE SOIL WILL BE REQUIRED IN YOUR ENGINEERING DESIGN OR CONSTRUCTION TECHNIQUES.

THERE IS NO INTEGRATED NOXIOUS WEED CONTROL PLAN AND IT IS RECOMMENDED THAT AN INTEGRATED WEED MANAGEMENT PROGRAM BE REVIEWED AND APPROVED BY THE EL PASO COUNTY WEED INSPECTOR AND/OR WEED ADVISORY BOARD, THE COUNTY EXTENSION AGENT. NRCS, OR A QUALIFIED WEED MANAGEMENT PROFESSIONAL PRIOR TO THE LAND USE AUTHORITY

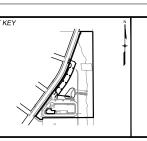
TOPSOIL SHOULD BE STRIPPED TO A DEPTH OF 6 INCHES AND ALL STOCKPILES SHOULD HAVE SIDE SLOPES NO STEEPER THAN 3:1 AND SEEDED. ALL DISTURBED AREAS SHOULD BE SEEDED AND MULCHED WITH WEED FREE HAY MULCH AT 4,000 LBS. /ACRE. ALL DISTURBED AREAS SHOULD BE RESEEDED BETWEEN THE PLANTING DATES OF NOV. 1-APRIL  $30^{\mathrm{TH}}$ . GRASS SEED SHOULD BE DRILLED AT A DEPTH OF ½ TO ½ INCH DEEP AND IF BROADCASTED, DOUBLE THE RATE. PLEASE FEEL FREE TO UTILIZE THE ATTACHED NATIVE SHOTGUN MIX THAT WILL WORK BEST ON YOUR

VEHICLE TRACKING CONTROL STATIONS NEED TO BE INSTALLED AT ALL ENTRANCE AND EXIT POINTS ON THE SITE. THE STATION SHOULD CONSIST OF A PAD OF 3 TO 6-INCH ROCK OR A VEHICLE CONTROL PAD/MAT TO STRIP MUD FROM TIRES PRIOR TO VEHICLES LEAVING THE CONSTRUCTION SITE TO PREVENT SPREADING OF NOXIOUS WEEDS.

SILT FENCES OR OTHER FORMS OF EROSION BARRIERS NEED TO BE PLANNED AND INSTALLED AS A TEMPORARY SEDIMENT CONTROL DEVICE USED ON CONSTRUCTION SITES TO PROTECT WATER

THE EL PASO COUNTY CD BOARD STRONGLY RECOMMENDS THAT LOW IMPACT DEVELOPMENT (LID) TECHNIQUES BE IMPLEMENTED FOR ECONOMIC AND CONSERVATION BENEFITS.

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REPARED FOR: **UBERTY TREE** ACADEMY PREPARED BY:

**Matrix Excellence by Design** 

LIBERTY TREE ACADEMY - PHASE 2

TOWN OF PEYTON, EL PASO COUNTY CONSTRUCTION DOCUMENTS, PCD FILE NO. PPR-20-018

**EROSION CONTROL DETAILS** 

DATE ISSUED: ACR SC ACR HORIZ. DRK VERT RAWN BY: ECDT03

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

Call before you dig

#### MM-2**Stockpile Management (SM)**

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS
POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE
EROSION, AND PERFORM INCESSARY MAINTENANCE.

Frequent observations and maintenance are necessary to maintain emps in effective operating condition, inspections and corrective measures should be poculaented thoroughly.

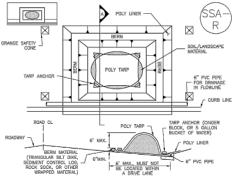
3, WHERE  $\mathrm{BMP}_{3}$  HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES 4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Stockpile Management (SP)



SP-2, MATERIALS STAGING IN ROADWAY

MATERIALS STAGING IN ROADWAYS INSTALLATION NOTES

2. FEATURE MUST BE INSTALLED PRIOR TO EXCAVATION, EARTHWORK OR DELIVERY OF MATERIALS.

4. POLY LINER AND TARP COVER SHOULD BE OF SIGNIFICANT THICKNESS TO PREVENT DAMAGE OR LOSS OF INTEGRITY.

5. SAND BAGS MAY BE SUBSTITUTED TO ANCHOR THE COVER TARP OR PROVIDE BERMING UNDER THE BASE LINER.

7. THIS FEATURE CAN BE USED FOR:

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

MM-2

**Stockpile Management (SM)** 

MATERIALS STAGING IN ROADWAY MAINTENANCE NOTES

1. INSPECT BMP# EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMP# SHOULD BE PROXCTIVE, NOT REACTIVE. INSPECT BMP# AS SOOM AS
POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE
EROSION, AND PERFORM NECESSARY MAINTENANCE.

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3, WHERE  ${\rm BMP_8}$  HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. INSPECT PVC PIPE ALONG CURB LINE FOR CLOGGING AND DEBRIS. REMOVE OBSTRUCTIONS PROMPTLY. 6. CLEAN MATERIAL FROM PAVED SURFACES BY SWEEPING OR VACUUMING.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM AURORA, COLORADO)

3. MATERIALS MUST BE STATIONED ON THE POLY LINER, ANY INCIDENTAL MATERIALS DEPOSITED ON PAVED SECTION OR ALONG CURB LINE MUST BE CLEANED UP PROMPTLY.

6. FEATURE IS NOT INTENDED FOR USE WITH WET MATERIAL THAT WILL BE DRAINING AND/OR SPREADING OUT ON THE POLY LINER OR FOR DEMOLITION MATERIALS.

-WHEN OTHER STAGING LOCATIONS AND OPTIONS ARE LIMITED.
-OTHER LIMITED APPLICATION AND SHORT DURATION STAGING.

**SM-6** 

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

SR

EC-1

Surface Roughening (SR)

SURFACE ROUGHENING INSTALLATION NOTES

SEE PLAN VIEW FOR:
 -LOCATION(S) OF SURFACE ROUGHENING.

SURFACE ROUGHENING SHALL BE PROVIDED PROMPTLY AFTER COMPLETION OF FINISHED GRADING (FOR AREAS NOT RECEIVING TOPSOIL) OR PRIOR TO TOPSOIL PLACEMENT OR ANY FORECASTED RAIN EVENT.

3. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SQD WILL BE PLACED WITHOUT DELAY IN THE CONSTRUCTION SEQUENCE, SURFACE ROUGHENING IS NOT REQUIRED. 4. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS. S. A FARMING DISK SHALL NOT BE USED FOR SURFACE ROUGHENING.

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

SURFACE ROUGHENING MAINTENANCE NOTES

NOFFECT BMP9 EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OFFRATING CONDITION MAINTENANCE OF BMP9 SHOULD BE PROACTIVE, NOT FEACTIVE, INSPECT BMP9 AS 900N AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACE UPON DISCOVERY OF THE FAILURE. 4. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.

5. IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE. 6. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER RILL FRONION.

(DETAILS ADAPTED FROM TOWN OF PARKER, GOLDRAGO, NOT AVAILABLE IN AUTOCAD) NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. DIFFERENCES ARE NOTE: Stabilized Staging Area (SSA)

SSA CONSTRUCTION \_ SILT FENCE OR CONSTRUCTION FENCING AS NEEDED

SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR  $6^\circ$  (MINUS) ROCK. 6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS
POSSIBLE (AND ALMAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE
EROSION, AND PERFORM NECESSARY MAINTENANCE.

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

SM-6

Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZEO STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF APECA TO A LACE OF THE PROPERTY WAS BEAUCH AS TO A CONTROL OF THE PROPERTY WAS BE

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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SURFACE ROUGHENING

ROUGHENED ROWS SHALL BE 4" TO 6" DEEP WITH 6" MAXIMUM SPACING PARALLEL

SR-2. SURFACE ROUGHENING

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

REPARED FOR: **UBERTY TREE** ACADEMY

PREPARED BY: **Matrix Excellence by Design** 



TOWN OF PEYTON, EL PASO COUNTY CONSTRUCTION DOCUMENTS, PCD FILE NO. PPR-20-018

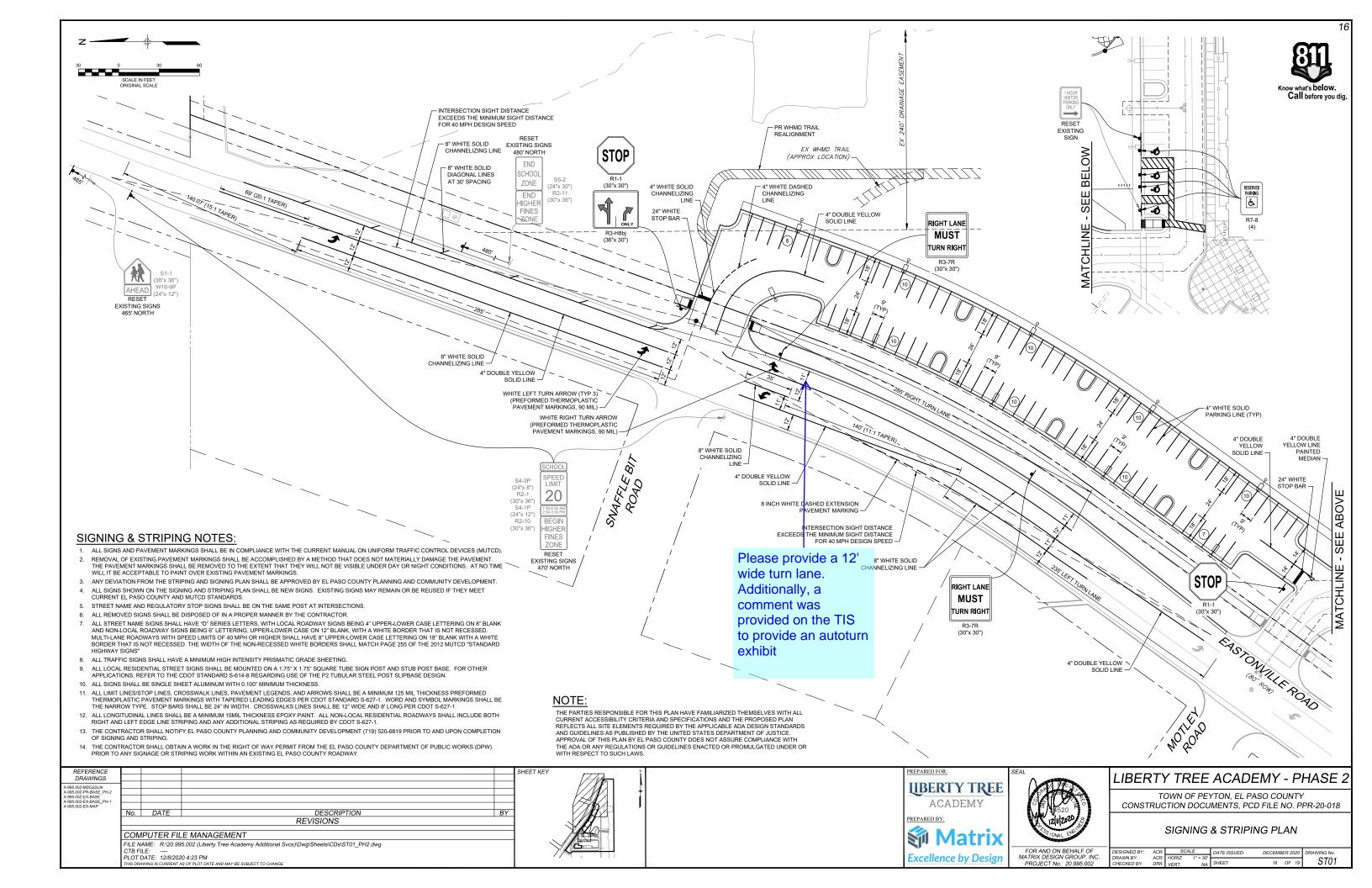
**EROSION CONTROL DETAILS** 

LIBERTY TREE ACADEMY - PHASE 2

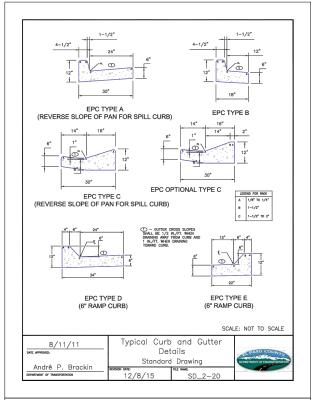
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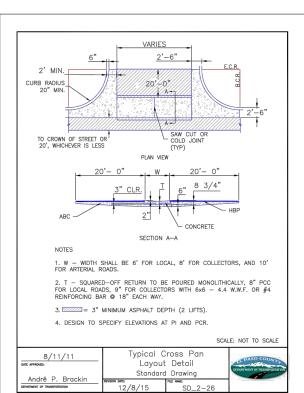
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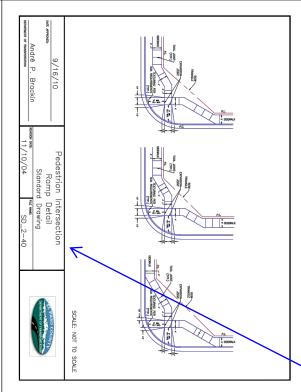
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

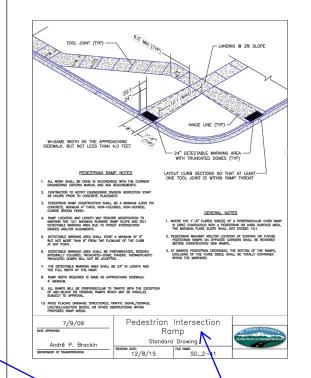


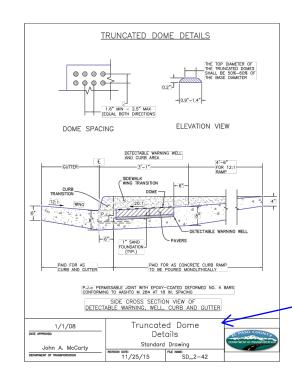


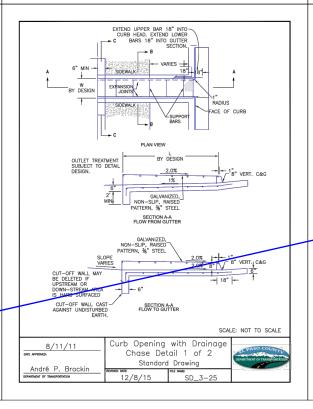


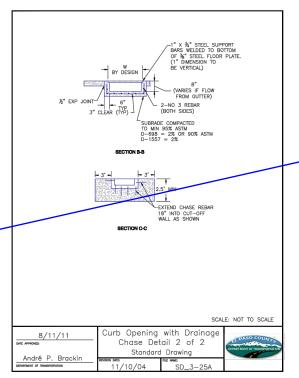


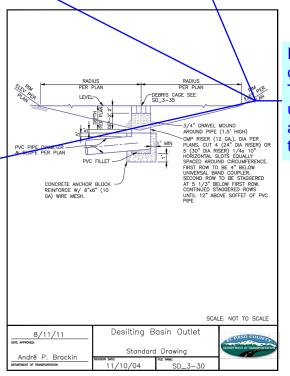






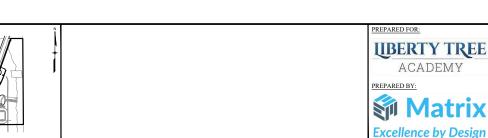






Please update these details to the latest. These were recently updated with the adoption of CH 6 of the ECM.

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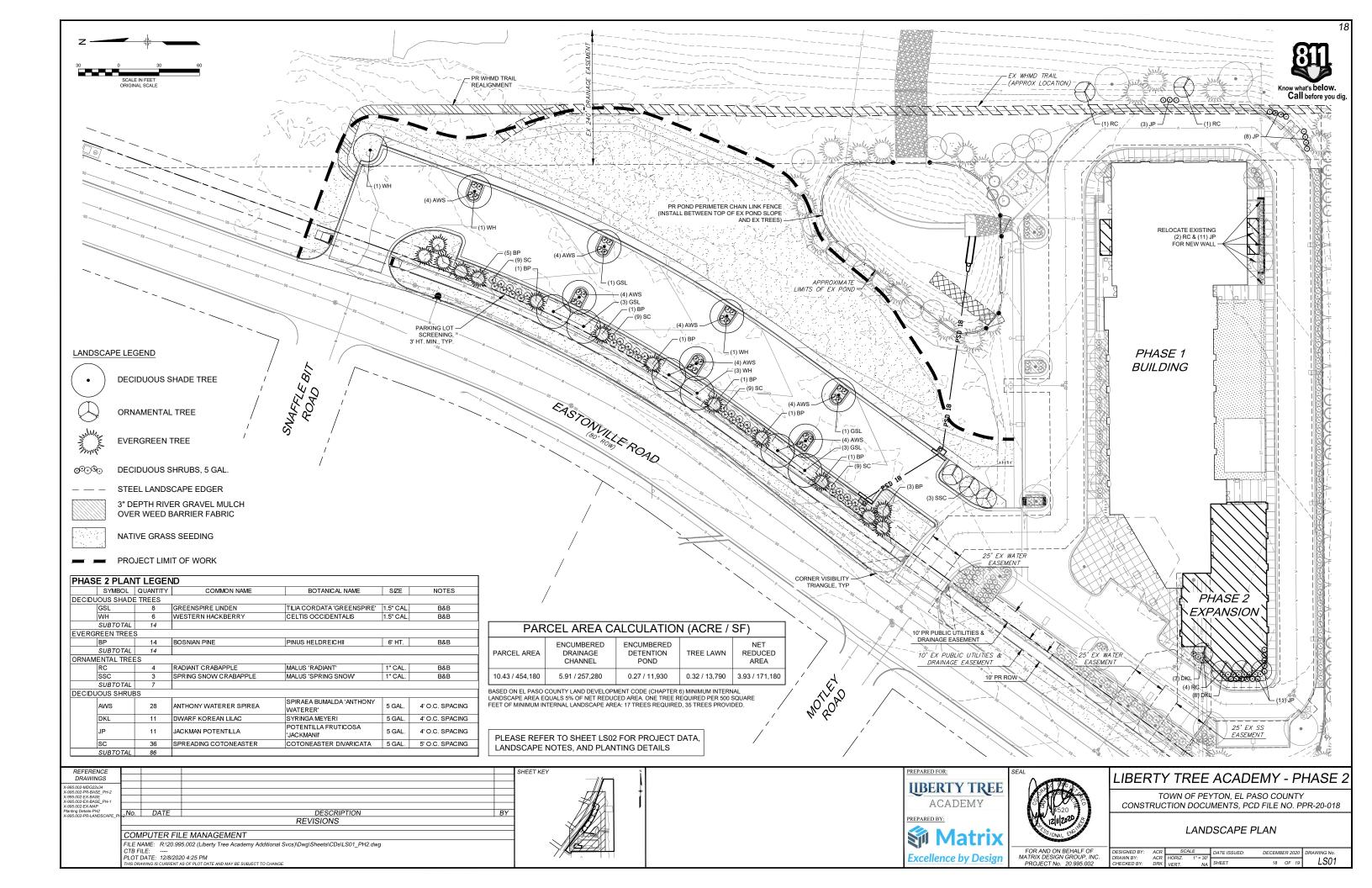


# LIBERTY TREE ACADEMY - PHASE 2 TOWN OF PEYTON, EL PASO COUNTY

DETAILS

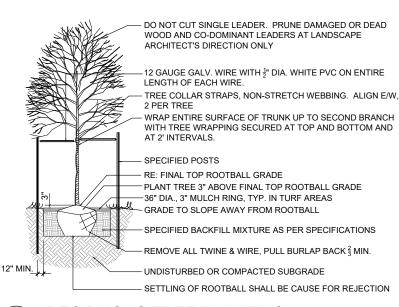
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#### NATIVE SEED MIX



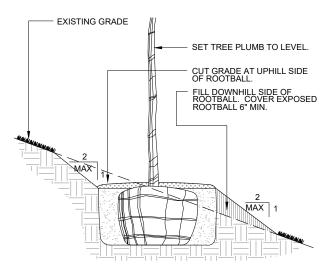
## DECIDUOUS TREE PLANTING

PHASE 2 PROJECT DATA					
DESCRIPTION	QUANTITY				
PROPERTY (NET REDUCED AREA)	171,180 S.F.				
BUILDING*	7,120 S.F.				
PARKING & OTHER VEHICULAR USE AREAS*	31,235 S.F.				
LANDSCAPE*	48,363 S.F.				
PARKING STALLS*	85				

\* ONLY A PORTION OF THE TOTAL LOT IS BEING DEVELOPED AT THIS TIME. THEREFORE, THE QUANTITY SHOWN ABOVE IS ONLY THAT PORTION BEING DEVELOPED AT THIS TIME

#### LANDSCAPE NOTES:

- ALL CONSTRUCTION SHALL BE DONE PER REGULATIONS OF GOVERNING AGENCIES.
  AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM IS REQUIRED FOR ALL
- AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM IS REQUIRED FOR ALL LANDSCAPE AREAS. SPRAY IRRIGATION WILL BE PROVIDED FOR TURF AND GRASS AREAS; DRIP IRRIGATION WILL BE PROVIDED FOR ALL SHRUB BEDS AND TREES.
- 3. NO TREE OR SHRUB WILL BE PLANTED WITHIN 5' OF A FIRE HYDRANT.
- DISTANCE OF TREES FROM WET UTILITY LINES SHALL BE A MINIMUM OF 10 FEET.
   ALL SHRUB BED AREAS SHALL BE SEPARATED FROM SOD OR GRASS AREAS BY ROLLED-TOP STEEL EDGING MATERIAL.
- 6. 3" DEPTH RIVER GRAVEL MULCH  $(1^1_2)$ ") SHALL BE PLACED OVER A SUITABLE WEED BARRIER FABRIC IN ALL SHRUB PLANTING BEDS.
- SOIL PREPARATION FOR LANDSCAPE AREAS SHALL INCLUDE TOPSOIL AND/OR
  ORGANIC MATTER (COMPOST OR AGED GROUND MANURE) AND SHALL BE ADDED AT A
  RATE OF 4 CUBIC YARDS PER ONE THOUSAND SQUARE FEET AND TILLED 8" DEPTH
  INTO THE SOIL.
- 8. SHRUB BEDS SHALL BE AMENDED AND TILLED IN THEIR ENTIRETY.
- 9. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE IN ALL LANDSCAPE AREAS.
- 10. CONTRACTOR SHALL ENSURE THAT THE LANDSCAPE PLAN IS COORDINATED WITH THE PLANS PREPARED BY OTHER CONSULTANTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, OR OTHER CONSTRUCTION DOES NOT CONFLICT WITH NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS AS DESIGNATED ON THIS PLAN.
- 11. TOPSOIL, IF DISTURBED SHALL BE STOCKPILED AND RE-USED ON THE SITE.
- 12. BASED ON EL PASO COUNTY LAND DEVELOPMENT CODE (CHAPTER 6) MINIMUM INTERNAL LANDSCAPE AREA EQUALS 5% OF NET REDUCED AREA. ONE TREE REQUIRED PER 500 SQUARE FEET OF MINIMUM INTERNAL LANDSCAPE AREA: 17 TREES REQUIRED, 17 TREES PROVIDED. BASED ON EL PASO COUNTY LAND DEVELOPMENT CODE (CHAPTER 6) ONE TREE REQUIRED PER 25 LINEAR FEET OF STREET FRONTAGE: 453 LF PHASE 2 STREET FRONTAGE: 18 TREES REQUIRED, 18 TREES PROVIDED. TOTAL OF 35 TREES PROVIDED.



 ${\underline{\tt NOTE:}}$  REFER TO VARIOUS SPECIFIC TREE INSTALLATION DETAILS FOR STAKING, GUYING, MULCHING, ETC.

NOTE: THIS INSTALLATION SHALL APPLY TO ALL TREE TYPES AND SIZES PLANTED ON SLOPES LESS THAN 2:1

TREE PLANTING ON SLOPE

# NON-STRETCH WEBBING TREE COLLAR STRAPS DOUBLE STRAND WIRE. PROVIDE 3 GUY SYSTEMS EQUIDISTANT AROUND TREE. GUY TREES AS PER DIAGRAM. PLACE 1/2" WHITE PVC, 36" LENGTH ON ALL GUYING 3" DEPTH MULCH SPECIFIED STAKES DRIVEN FLUSH WITH GRADE PLANT ROOTBALL 3" HIGHER THAN FINISH GRADE IN IRRIGATED LAWN AREAS SPECIFIED BACKFILL MIXTURE SET ROOT BALL ON EXISTING UNDISTURBED SUB-SOIL.

#### NOTES:

- INSTALL SPECIFIED MULCH TO DRIPLINE OF TREE WHERE PLANTED IN GRASS AREAS.
- 2. DO NOT PROVIDE WATER BASIN IN IRRIGATED LAWN AREAS.
  3. PLANT TOP OF ROOTBALL AT FINAL GRADE OF WATERING
- BASIN IN NATIVE GRASS AREAS.

#### **EVERGREEN TREE PLANTING**

NIS

#### LANDSCAPE SETBACKS

SEE CODE SECTION / POLICY

STREET NAME OR WIDTH (IN FT.) LINEAR TREE / FOOT NO. OF TREES ZONE BOUNDARY CLASSIFICATION REQ. / PROV. FOOTAGE REQUIRED REQ. / PROV. EASTONVILLE RD. MINOR ARTERIAL SHRUB SUBSTITUTES ORNAMENTAL GRASS SUB. SETBACK PLANT ABBR PERCENT GROUND PLANE REQUIRED / PROVIDED REQUIRED / PROVIDED DENOTED ON PLAN VEG. REQ. / PROVIDED (SEE PLANS) 75% / 75%

# Know what's below. Call before you dig.

#### Internal Landscaping

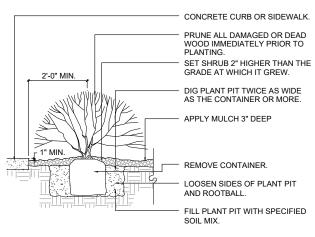
NET SITE AREA (SF)	PERCENT MINIMUM	INTERNAL AREA (SF)	INTERNAL TREES (1 / 500 SF)
	INTERNAL AREA (%)	REQUIRED / PROVIDED	REQUIRED / PROVIDED
183,448 SF	5%	9,173 / 51,637	19 / 35
SHRUB SUBSTITUTES	ORNAMENTAL GRASS SUB.	INTERNAL PLANT ABBR.	PERCENT GROUND PLANE
REQUIRED / PROVIDED	REQUIRED / PROVIDED	DENOTED ON PLAN	VEG. REQ. / PROVIDED
0/0	0 / 0	(SEE PLANS)	75% / 100%

#### Motor Vehicle Lots

NO. OF VEHICLE SPACES PROVIDED	SHADE TREES (1 / 15 SPACES) REQUIRED / PROVIDED	VEHICLE LOT FRONTAGES	LENGTH OF FRONTAGE (EXCLUDING DRIVEWAYS)	2 / 3 LENGTH OF FRONTAGE (LF)
85	6/8	FASTONVILLE RD	453 I F	302 I F

#### Landscape Buffer & Screens

STREET NAME OR PROPERTY LINE	WIDTH (IN FT.) REQ. / PROV.	LINEAR FOOTAGE	BUFFER TREES (1 / 25') REQUIRED / PROVIDED	EVERGREEN TREES REQ. (1/3)/PROV.
EASTONVILLE RD.	20 / 24	453'	18 / 18	6 / 12
LENGTH OF 6' OPAQUE STRUCTURE REQ./PROV.	BUFFER TREE A DENOTED ON P		ERCENT GROUND PLANE EG. REQ. / PROV.	
302 LE / 410 LE	(SEE DI ANS)	75	5% / 75%	



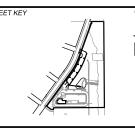
NOTE: ANY BROKEN OR CRUMBLING ROOTBALL WILL BE REJECTED. REMOVING THE CONTAINERS WILL NOT BE AN EXCUSE FOR DAMAGED ROOTBALLS.

NOTE: HOLD GRADE 1" BELOW EDGE OF WALK OR CURB. THIS DETAIL SHALL ALSO APPLY TO PERENNIAL FLOWERS IN CONTAINER.

 $\underline{\text{NOTE:}}$  ALL JUNIPER PLANTS SHOULD BE PLANTED SO TOP OF ROOT MASS OCCURS AT FINISH GRADE OF MULCH LAYER.

# SHRUB PLANTING

REFERENCE					SHEE			
DRAWINGS								
X-995.002-MDG22x34					1			
X-995.002-PR-BASE_PH-2								
X-995.002-EX-BASE X-995.002-EX-BASE PH-1								
X-995.002-EX-MAP								
Planting Details-PH2 X-995.002-PR-LANDSCAPE_PH	₂No.	DATE	DESCRIPTION	BY				
	REVISIONS							
	COMPUTER FILE MANAGEMENT							
	FILE NAME: R:\20.995.002 (Liberty Tree Academy Additional Svcs)\Dwg\Sheets\CDs\LS01 PH2.dwg							
	CTB FILE:							
	PLOT I	PLOT DATE: 12/8/2020 4:25 PM						
	THIS DRA	THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.						





Excellence by Desig



FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

# LIBERTY TREE ACADEMY - PHASE 2

TOWN OF PEYTON, EL PASO COUNTY CONSTRUCTION DOCUMENTS, PCD FILE NO. PPR-20-018

LANDSCAPE NOTES

SIGNED BY:	ACR	SCALE		DATE ISSUED:	DECEME	BER 2020	DRAWING No.	
AWN BY:	ACR	HORIZ.	NA				1 000	
ECKED BY:	DRK	VERT.	NA	SHEET	19	OF 19	LS02	