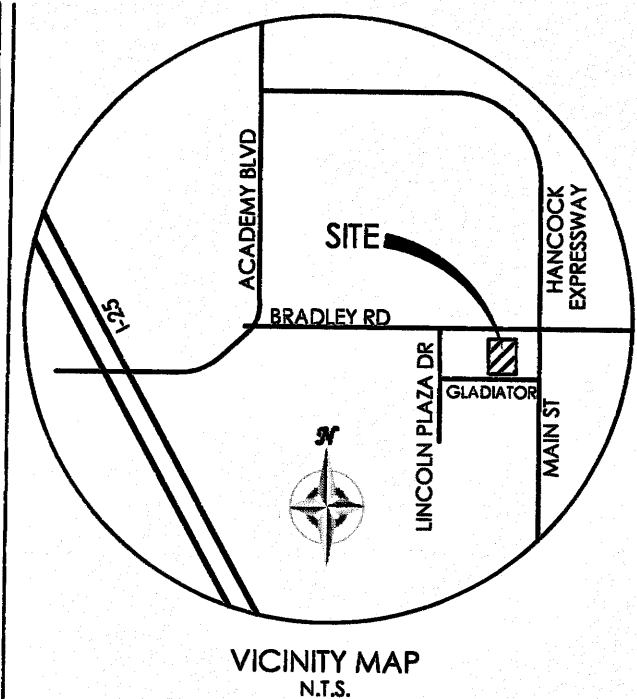


# SITE DEVELOPMENT PLAN

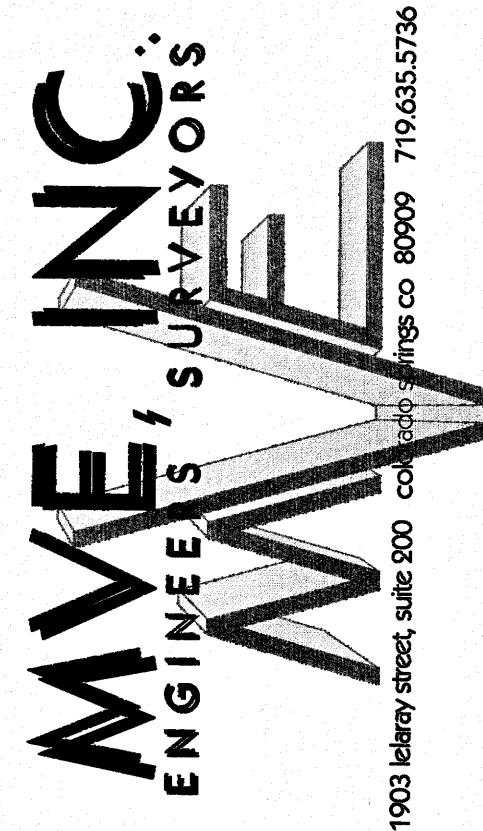
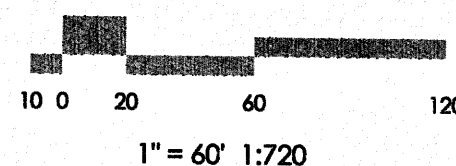
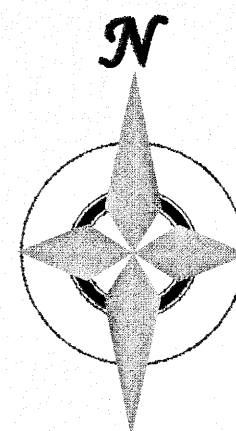
## FOR

# THE TOWNHOMES AT BRADLEY CROSSROADS

LOT 1A, BRADLEY CROSSROADS FILING NO. 1B  
 LOCATED IN THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 15 SOUTH, RANGE 66 WEST OF THE 6TH P.M.,  
 EL PASO COUNTY, COLORADO



BENCHMARK



REVISIONS

DESIGNED BY \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

THE TOWNHOMES AT  
 BRADLEY CROSSROADS

SITE DEVELOPMENT  
 PLAN  
 COVER SHEET

DP-1  
 MVE PROJECT 61093  
 MVE DRAWING DEV-CS

FEBRUARY 11, 2019  
 SHEET 1 OF 4

**LEGEND**

---	PROPERTY LINE	---	INDEX CONTOUR
---	EASEMENT LINE	---	INTERMEDIATE CONTOUR
---	LOT LINE	---	CONCRETE AREA
---	BUILDING SETBACK LINE	---	ASPHALT AREA
---	ADJACENT PROPERTY LINE	---	CURB AND GUTTER
---		---	BUILDING/ BUILDING OVERHANG
---		---	DECK
---		---	RETAINING WALL - SOLID/ ROCK
---		---	SIGN
---		---	BOLLARD
---		---	WOOD FENCE
---		---	CHAIN LINK FENCE
---		---	BARBED WIRE FENCE
---		---	TREE (EVERGREEN/DECIDUOUS)
---		---	SHRUB
---		---	ROCK

**SHEET INDEX:**

**SITE DEVELOPMENT PLAN**

DP-1	COVER SHEET
DP-2	SITE PLAN
DP-3	ADA ROUTE PLAN
DP-4	SITE DETAILS

**GRADING & EROSION CONTROL PLAN**

C1.1	COVER SHEET
C1.2	GRADING PLAN (NORTH)
C1.3	GRADING PLAN (SOUTH)
C1.4	CIVIL DETAILS
C1.5	EROSION CONTROL PLAN
C1.6	EROSION CONTROL DETAILS
C1.7	EROSION CONTROL DETAILS

**LANDSCAPE PLAN**

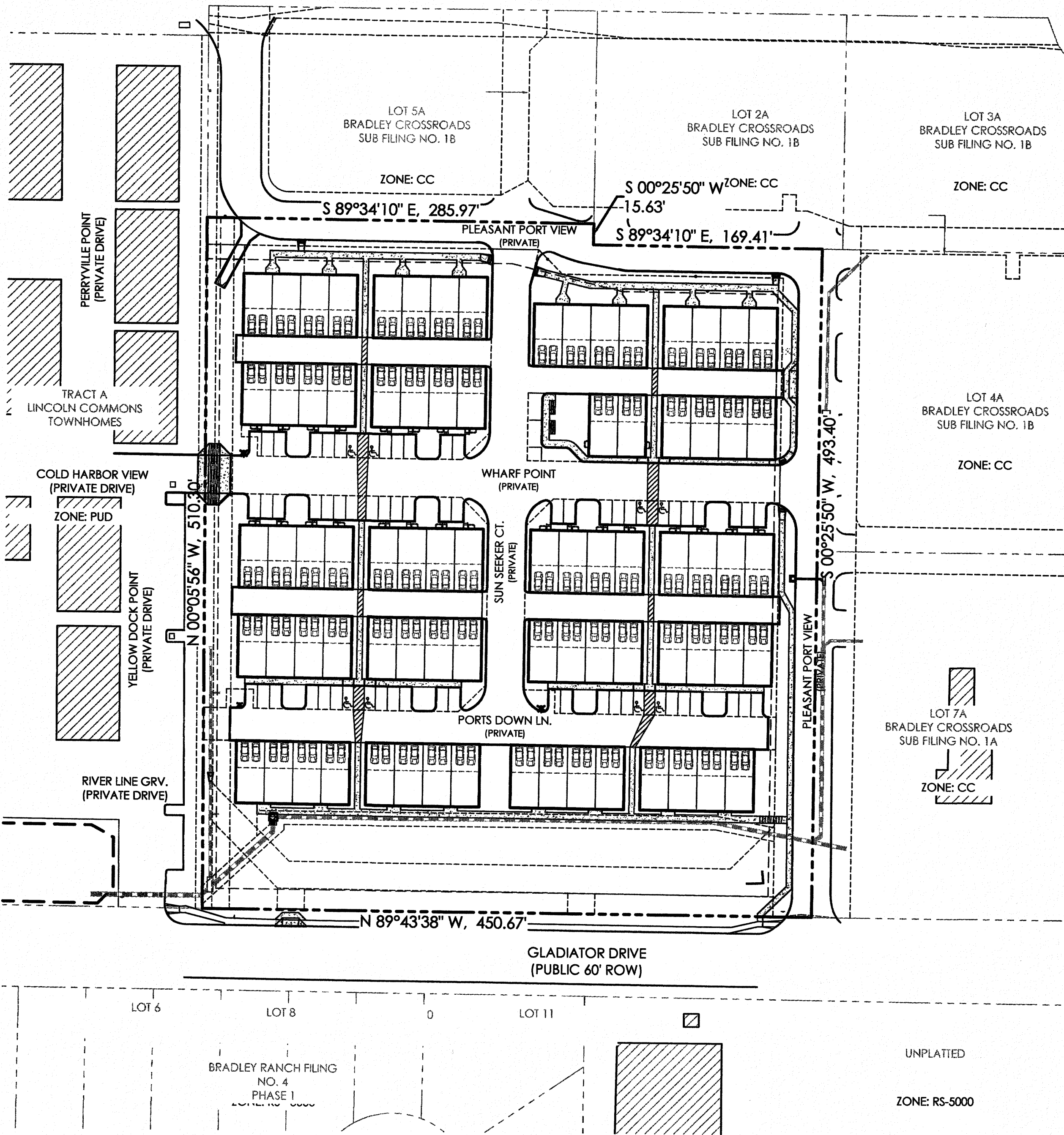
L1	LANDSCAPE PLAN
L2	LANDSCAPE PLAN

**BUILDING ELEVATIONS**

A1.0	ELEVATION VIEWS
A2.0	ELEVATIONS VIEWS

**BUILDING FLOOR PLANS**

A3.0	MAIN LEVEL (TYPE "B" WITH BASEMENT)
A4.0	UPPER LEVEL (TYPE "B" WITH BASEMENT)
A5.0	BASEMENT LEVEL (TYPE "B")
A6.0	UPPER LEVEL (TYPE "S" NO BASEMENT)
A7.0	MAIN LEVEL (TYPE "S" NO BASEMENT)



Update the FEMA  
 FIRM number and  
 date to the December  
 2018 date

**FLOODPLAIN STATEMENT**

NO PORTION OF THE SUBJECT PROPERTY IS NOT LOCATED WITHIN FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA (SFHA) AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR EL PASO COUNTY, COLORADO AND INCORPORATED AREAS - MAP NUMBER 08041C0763 F, EFFECTIVE MARCH 17, 1997.

**MAP NOTES**

- BOUNDARY BEARINGS AND DISTANCES SHOWN ON THIS MAP ARE RELATIVE TO THE SOUTH LINE OF LOT 1A, BRADLEY CROSSROADS FILING NO. 1B, ASSUMED TO BEAR N89°43'38"W.
- THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED AND PROVIDED BY POLARIS SURVEYING INC. ELEVATIONS SHOWN ARE RELATIVE TO THE CITY OF COLORADO SPRINGS CONTROL NETWORK (FMS DATUM)
- ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS MAP ARE FROM UTILITY MAIN RECORD MAPS AND UTILITY SERVICE LOCATION MAPS. THE LOCATION OF UTILITIES AS SHOWN ARE APPROXIMATE. ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. BELOW GROUND UTILITY LOCATIONS WERE NOT PERFORMED.

**SITE DATA**

**OWNER**  
 J. ELLIOT HOMES, INC.  
 12218 CRYSTAL DOWNS ROAD  
 PEYTON, CO 80831

**DEVELOPER**  
 J. ELLIOT CONSTRUCTION  
 4310 YELLOW DOCK POINT  
 SECURITY, CO 80825

**CONSULTANT/ENGINEER**  
 M.V.E., INC.  
 1903 LELARAY STREET, SUITE 200  
 COLORADO SPRINGS, CO 80909  
 (719) 635-5736

**SURVEYOR**  
 POLARIS SURVEYING, INC.  
 1903 LELARAY STREET, SUITE 102  
 COLORADO SPRINGS, CO 80909  
 (719) 448-0844

**ZONING**  
 RESIDENTIAL MULTI-DWELLING (RM-30)

**BUILDING USE**

TOWN HOMES  
**CONSTRUCTION SCHEDULE**  
 START: FALL, 2018  
 FINISH: WINTER, 2019

**TAX SCHEDULE NO.**

6502407102  
**PROPERTY ADDRESS**  
 4735 BRADLEY ROAD  
 COLORADO SPRINGS, CO 80911

**LEGAL DESCRIPTION**

LOT 1A, BRADLEY CROSSROADS FILING NO. 1B AS RECORDED AT RECEPTION NO. 218714143 OF THE RECORDS OF EL PASO COUNTY, COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE FOLLOWING COURSES AND DISTANCES ARE ALONG THE WEST, NORTH, EAST AND SOUTH LINES OF SAID LOT 1A;

BEGINNING AT THE SOUTHWEST CORNER OF BRADLEY CROSSROADS FILING NO. 2B, THENCE N00°05'56"W, 510.30 FEET;  
 THENCE S89°34'10"E, 285.97 FEET;  
 THENCE S00°25'50"W, 15.63 FEET;  
 THENCE S89°34'10"E, 169.41 FEET;  
 THENCE S00°25'50"W, 493.40 FEET;  
 THENCE N89°43'38"W, 450.67 FEET TO THE POINT OF BEGINNING;

CONTAINING A CALCULATED AREA OF 5.240 ACRES, MORE OR LESS.

**DEVELOPMENT NOTES:**

- WATER SERVICE PROVIDED BY SECURITY WATER DISTRICT.
- SEWER SERVICE PROVIDED BY SECURITY SANITATION DISTRICT.
- OWNERSHIP AND MAINTENANCE OF THE GENERAL COMMON ELEMENT (GCE), TRACT A SHALL BE VESTED TO THE TOWNHOMES AT BRADLEY CROSSROADS HOME OWNERS ASSOCIATION. THIS INCLUDES THE MAINTENANCE OF THE PRIVATE ROADS, COMMON AREAS, ETC.
- "S" TYPE UNITS ARE SLAB ON GRADE AND ADA ACCESSIBLE. "B" TYPE UNITS INCLUDE PARTIAL BASEMENT UNDER THE MAIN LIVING AREA AND ARE NON-ADA.

**ADA NOTE**

THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY EL PASO COUNTY DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS.

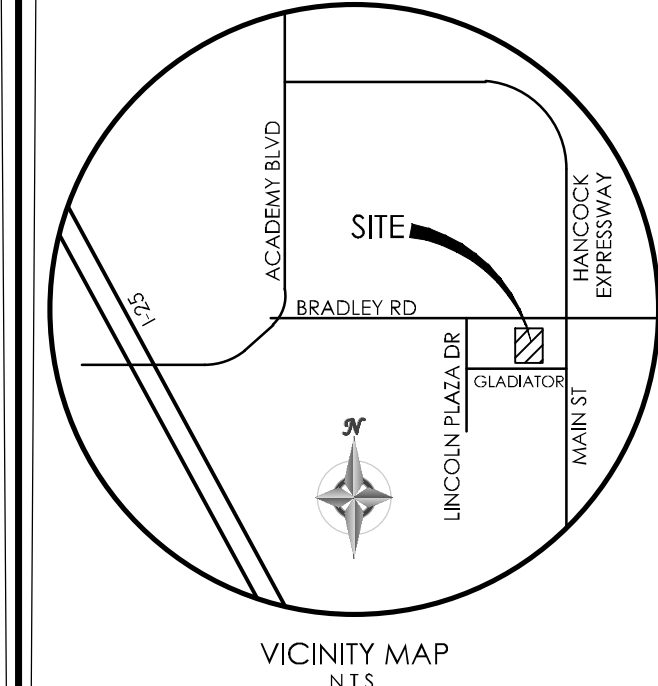
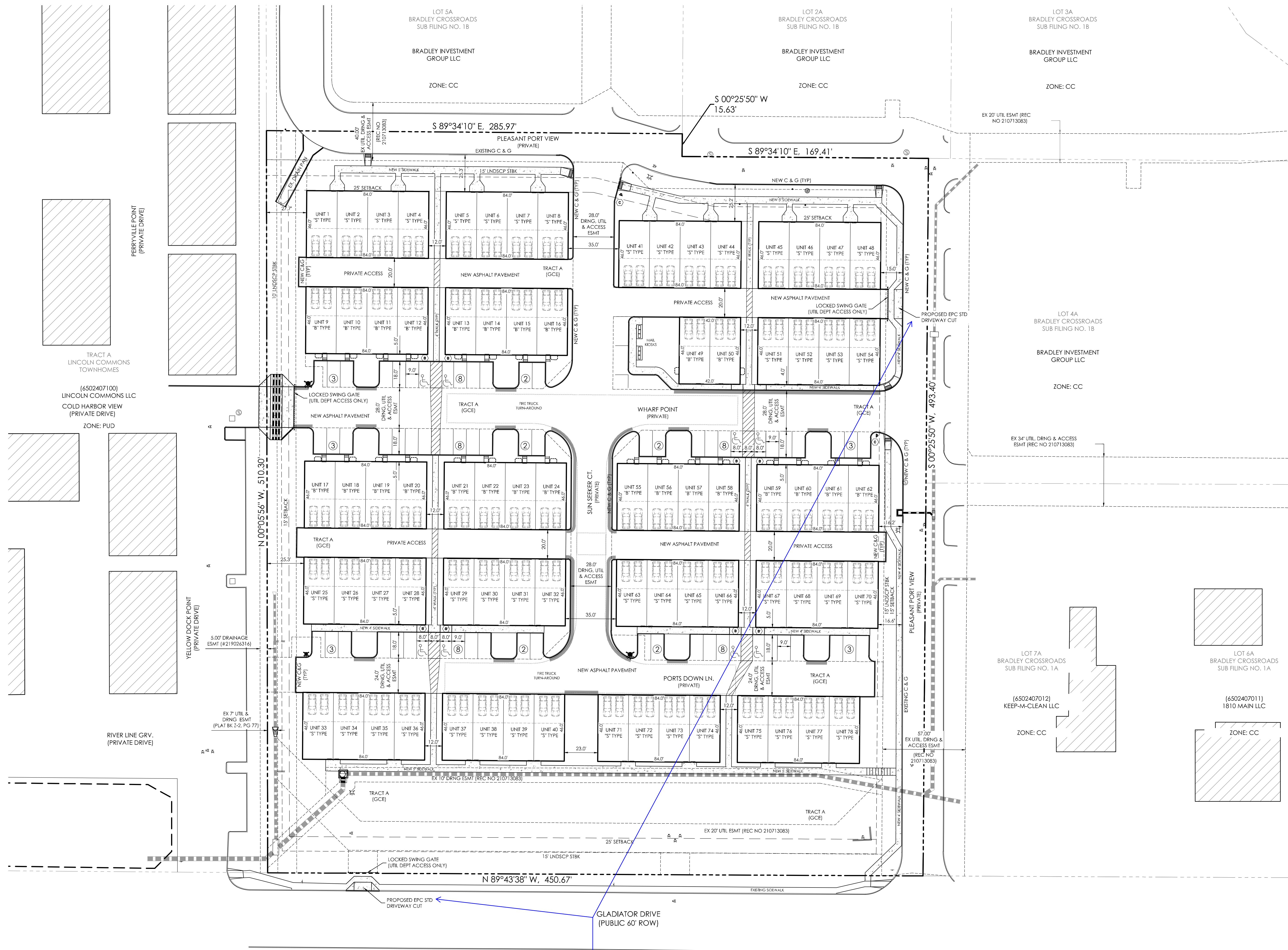
**OWNERS STATEMENT**

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED ON THIS SITE DEVELOPMENT PLAN.

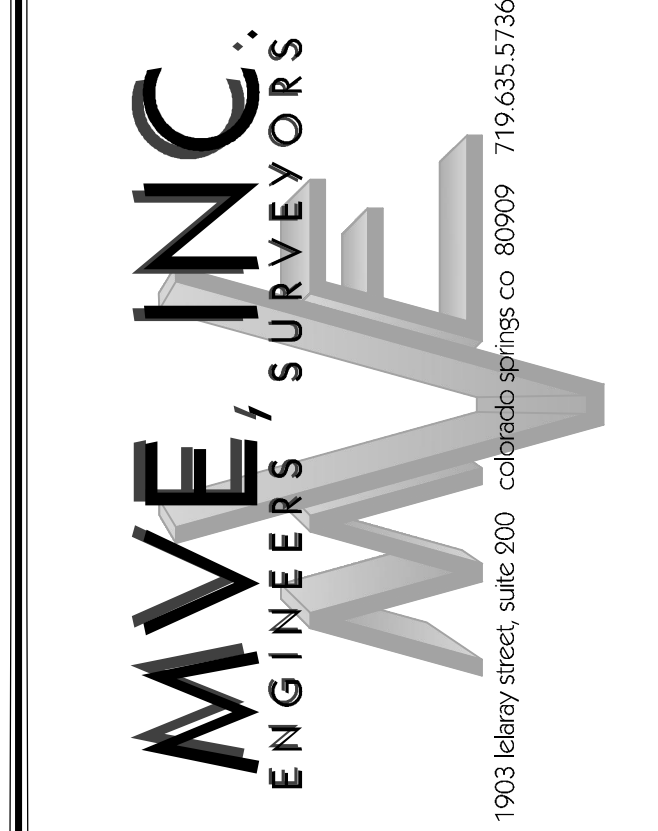
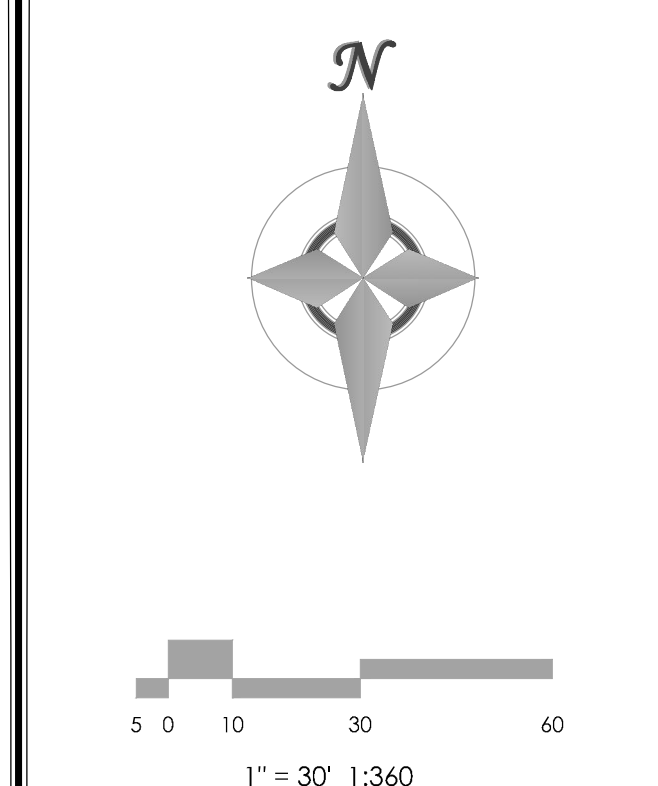
J. ELLIOT HOMES, INC.  
 12218 CRYSTAL DOWNS ROAD  
 PEYTON, CO 80831

EPC PROJ NO. PPR1846





BENCHMARK



REVISIONS

DESIGNED BY  
DRAWN BY  
CHECKED BY  
AS-BUILT BY  
CHECKED BY

THE TOWNHOMES AT  
BRADLEY CROSSROADS

SITE DEVELOPMENT  
PLAN  
SITE PLAN

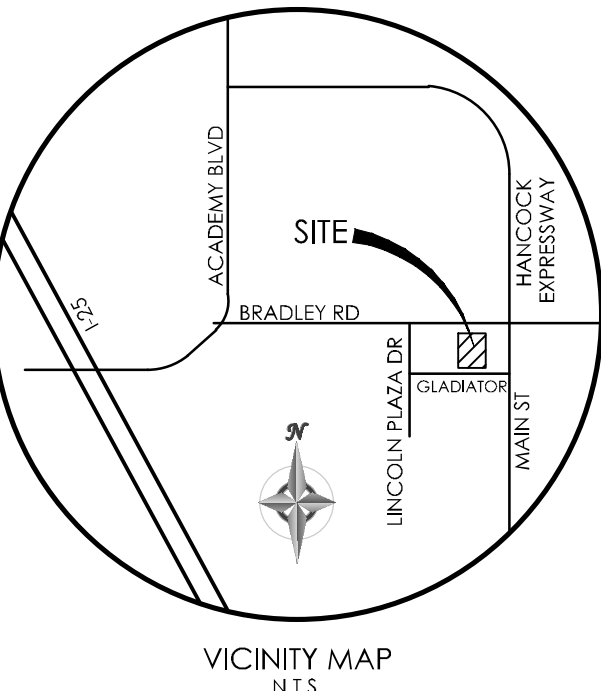
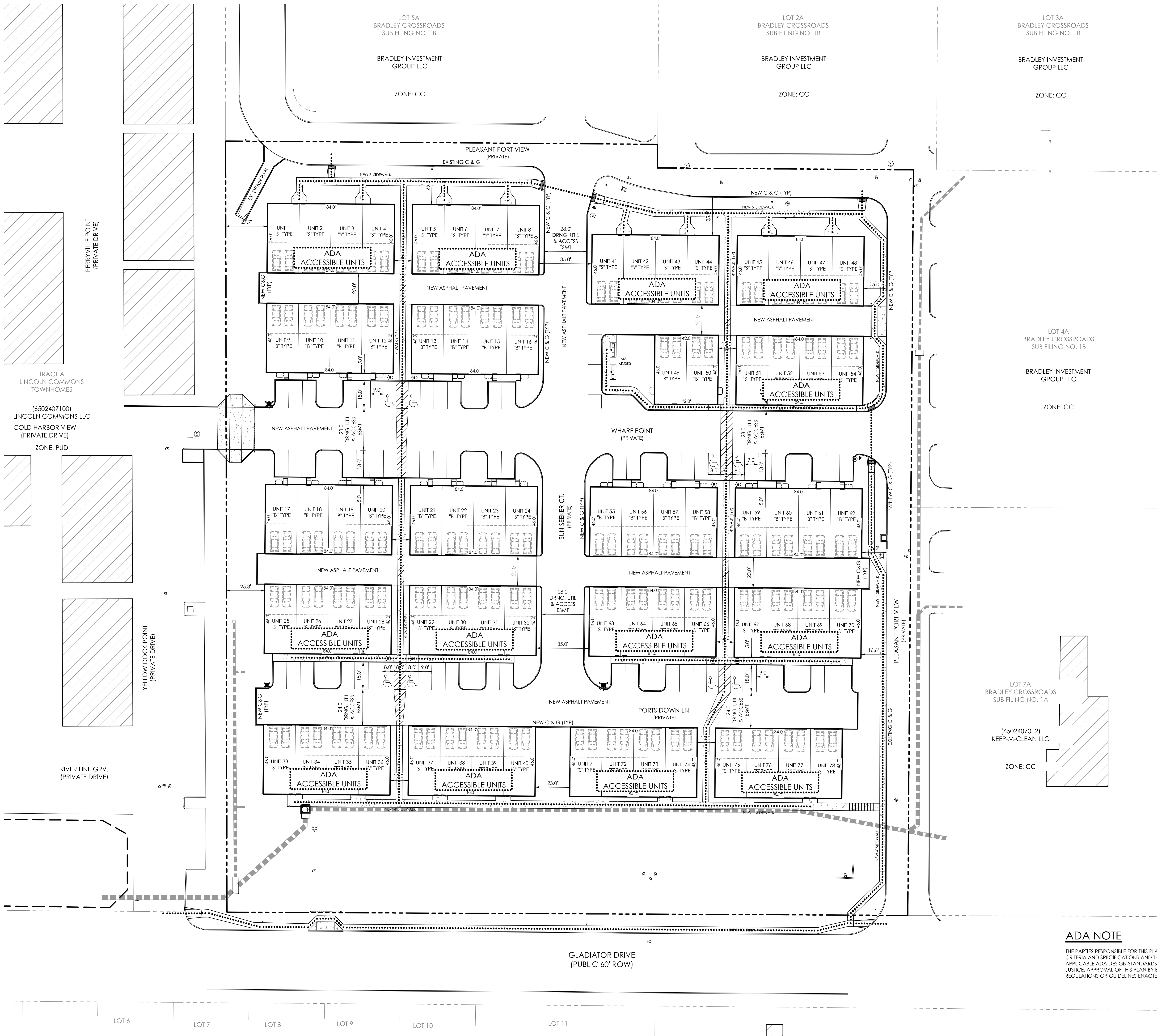
DP-2  
MVE PROJECT 61093  
MVE DRAWING DEV-SP

FEBRUARY 11, 2019  
SHEET 2 OF 4

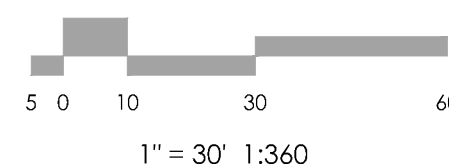
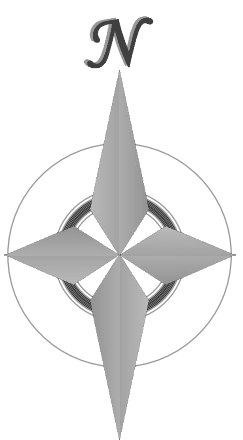
Review 2: Add EPC driveway detail SD 2-24 to the plans. Additionally indicate that the driveway and sidewalk at these utility dept. driveways are to be 8" thick.  
Review 3: Unresolved

EPC PROJ NO. PPR1846





BENCHMARK



REVISIONS

DESIGNED BY \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 AS-BUILT BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

THE TOWNHOMES AT  
BRADLEY CROSSROADS

SITE DEVELOPMENT  
PLAN  
ADA ROUTE PLAN

DP-3 61093

MVE PROJECT  
MVE DRAWING DEV-ADA

FEBRUARY 11, 2019  
SHEET 3 OF 4

ADA NOTE

THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY EL PASO COUNTY DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS.



EPC PROJ NO. PPR1846



STANDARD EL PASO COUNTY GRADING & EROSION CONTROL PLAN NOTES

- CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY DEVELOPMENT (PCD) A PRECONSTRUCTION CONFERENCE IS HELD WITH PCD INSPECTIONS.
- 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 EL PASO COUNTY STANDARD SPECIFICATIONS, 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 (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER. SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPs AS INDICATED ON THE 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 PCD INSPECTIONS STAFF.
- SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPs SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
- TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.
- ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPs IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SWMP).
- ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPs AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THE SWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.
- ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION 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.
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- EROSION CONTROL BLANKETING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER 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. BMPs MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- 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.
- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 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.
- NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
- INDIVIDUALS 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 INCLUDED IN THE DCM VOLUME I AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO ACTUAL CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 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 80244-1320  
ATTN: PERMITS UNIT

GRADING NOTES:

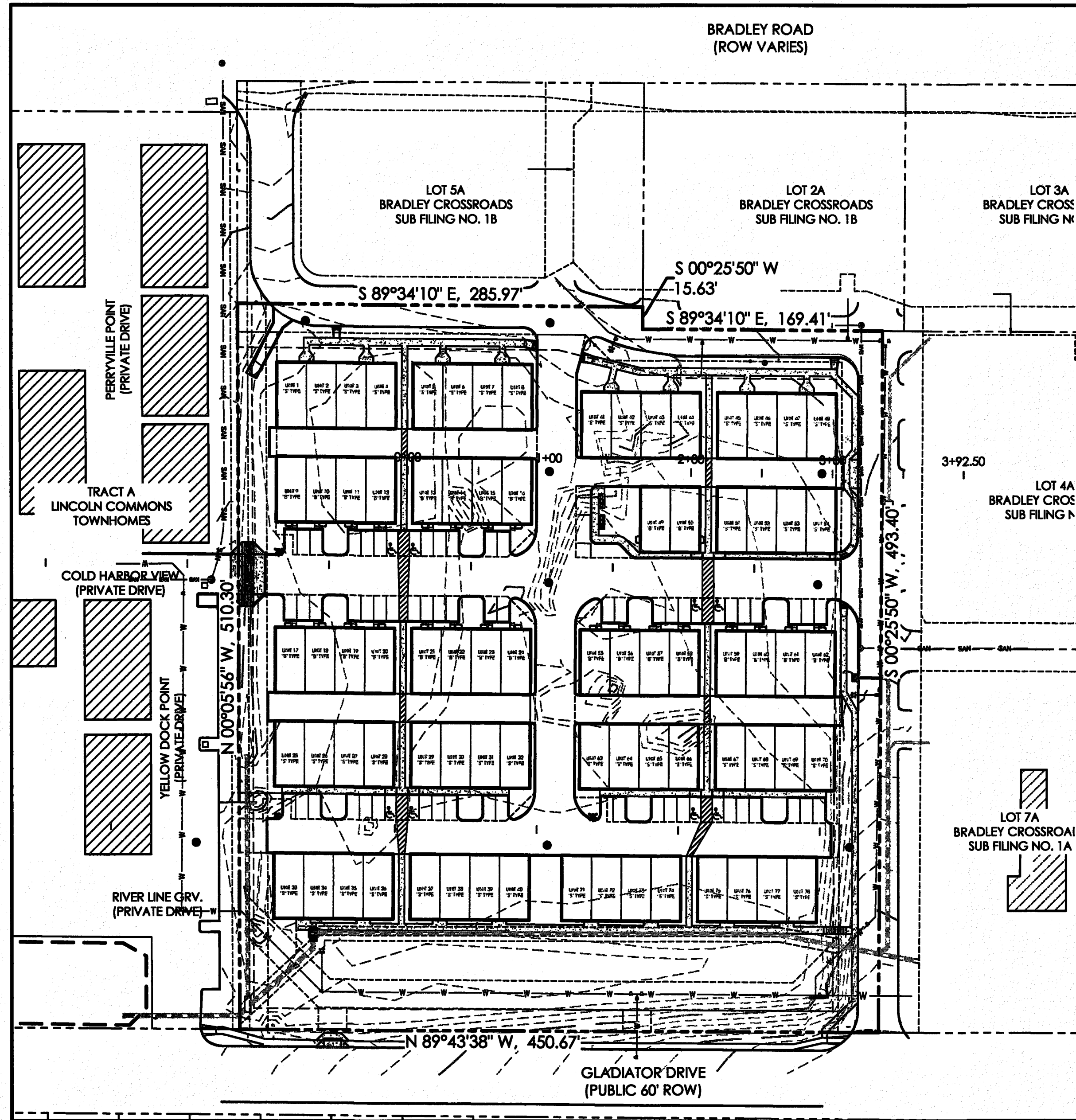
- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DRAWN FROM AVAILABLE RECORDS AND/OR SURFACE EVIDENCE. THE LOCATION OF ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. BELOW GROUND LOCATIONS HAVE NOT BEEN PERFORMED. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE. ALL UTILITIES SHALL BE LOCATED PRIOR TO ANY EARTH WORK OR DIGGING (1-800-722-1987). THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL SUBSURFACE UTILITY OWNERS PRIOR TO BEGINNING WORK TO DETERMINE LOCATION OF UTILITY FACILITIES.
- EXISTING CONDITIONS SHALL BE VERIFIED BY THE GENERAL CONTRACTOR. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
- M.V.E., INC. OR THE ENGINEER ASSUMES NO RESPONSIBILITY OR LIABILITY FOR USE OF THIS GRADING PLAN FOR ANY OTHER PURPOSE THAN OVER LOT GRADING OPERATIONS.
- ALL WEEDS, TRASH, DEBRIS, RUBBLE, BROKEN ASPHALT, ORGANIC MATERIAL (EXCLUDING TOPSOIL) AND REFUSE, OR ANY OTHER MATERIAL WHICH WOULD NOT BE DELETERIOUS AS FILL MATERIAL OR INCAPABLE OF SUPPORTING THE BUILDING, VEHICULAR AND/OR OVERBURDEN LOADS TO BE IMPOSED SHALL BE CLEARED, GRUBBED OR EXCAVATED AS THE CASE MAY DICTATE PRIOR TO GRADING AND SHALL BE REMOVED FROM SITE AND DISPOSED OF LEGALLY.
- CONTOUR INTERVAL FOR EXISTING AND PROPOSED CONTOUR LINES IS 1.0'.
- PROPOSED CONTOURS SHOWN ARE FINISH GRADES AND READ TO TOP OF PAVEMENT AND FINISH SOIL GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT GRADED AREAS FROM, AND AS NECESSARY RESTORE TO GRADE, ANY RUTS, WASHES OR OTHER CHANGES FROM THE DESIGN ELEVATIONS SHOWN HEREON, UNTIL GRADING WORK IS ACCEPTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL ENDEAVOR NOT TO DISTURB ANY OFFSITE AREAS. THE CONTRACTOR SHALL RESTORE TO THE ORIGINAL CONDITION, ADJACENT (OFF-SITE) PROPERTY DISTURBED BY HIS OPERATIONS.
- THE GENERAL CONTRACTOR SHALL STRIP TOPSOIL FROM CONSTRUCTION AREAS AND STOCKPILE TOPSOIL AT AREA SHOWN ON THIS PLAN. PLACE TOPSOIL WITH APPROPRIATE EROSION CONTROL AND IN A MANNER SO AS TO NOT CONFLICT WITH OTHER TRADES AND CONSTRUCTION PROCESS.
- ALL GRADING SHALL BE DONE TO INSURE POSITIVE DRAINAGE AWAY FROM FOUNDATIONS AND STRUCTURES.
- FINISHED GRADE OF ALL PREVIOUS EARTH SURFACES THAT CONTACT FOUNDATION WALLS SHALL BE A MINIMUM OF 4" BELOW ANY UNTREATED WOOD MATERIAL OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- PREVIOUS EARTH SURFACES SHALL SLOPE AWAY FROM ALL FOUNDATION WALLS AT A MINIMUM RATE OF 12" IN 10 FEET (10%) FOR THE FIRST 10 FEET ADJACENT TO THE FOUNDATION OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- CONCRETE OR OTHER IMPERVIOUS SURFACES THAT CONTACT FOUNDATION WALLS SHALL SLOPE AWAY FROM ALL FOUNDATION WALLS AT A MINIMUM RATE OF 1/4" PER FOOT (2.00%) OR IN ACCORDANCE WITH APPLICABLE CODES AND THE RECOMMENDATIONS OF THE OWNER'S GEOTECHNICAL ENGINEERING REPORT OR DESIGN.
- ANY FILL MATERIAL REQUIRED TO BRING GRADES UP TO PROPOSED ELEVATIONS SHALL BE PROVIDED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTING TOPSOIL THROUGHOUT THE LAWN AND PLANTING AREAS ACCORDING TO APPROVED LANDSCAPE PLANS, BY OTHERS.

# GRADING AND EROSION CONTROL PLAN

for

## THE TOWNHOMES AT BRADLEY CROSSROADS

### EL PASO COUNTY, COLORADO



SITE MAP  
1" = 60'

- THE NATURE OF WORK PROPOSED BY THIS PLAN IS GRADING AND THE EXTENT OF SAID PROPOSED GRADING IS SHOWN BY THE EXISTING AND PROPOSED CONTOURS HEREON.
- CONTRACTOR SHALL USE MECHANICAL METHODS TO GO FROM THE EXISTING TO PROPOSED CONTOURS IN ACCORDANCE WITH THIS GRADING PLAN. QUALITY CONTROL OF SOILS AND GRADING OPERATION WILL BE AS DIRECTED BY OWNERS GEOTECHNICAL ENGINEER.
- CONTRACTOR IN THE PERFORMANCE OF HIS GRADING WORK SHALL, AT ALL TIMES, WHETHER OR NOT SPECIFICALLY DIRECTED BY OWNER OR ENGINEER, STRICTLY OBSERVE SAFETY PROVISIONS OF ALL FEDERAL, STATE AND MUNICIPAL LAWS AND BUILDING AND CONSTRUCTION CODES RELATING TO PUBLIC SAFETY. CONTRACTOR SHALL CONTINUOUSLY CONDUCT HIS GRADING OPERATIONS WORK IN A MANNER THAT SUCH WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY OR ADVERSELY AFFECT THE SAFETY, USE OR STABILITY OF THE PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY SHOWN ON THIS GRADING PLAN. GRADING OPERATIONS WORK COMPLETED IN ACCORDANCE WITH THIS GRADING PLAN WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY OR ADVERSELY AFFECT THE SAFETY, USE OR STABILITY OF THE PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY SHOWN ON THIS GRADING PLAN.
- WHENEVER OWNER, ENGINEER OR CITY SAFETY DIRECTOR OR HIS DESIGNATED REPRESENTATIVE BECOMES AWARE OF CONTRACTOR'S FAILURE TO COMPLY WITH APPLICABLE SAFETY REGULATIONS, THE OWNER, ENGINEER OR CITY SAFETY DIRECTOR OR HIS DESIGNATED REPRESENTATIVE WILL INFORM THE CONTRACTOR WHO SHALL TAKE IMMEDIATE STEPS TO REMEDY THE NONCOMPLIANCE.
- CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION CONTROL MEASURES DURING EARTHWORK OPERATIONS TO CONTROL EROSION AND SEDIMENT TRANSFER TO ADJACENT PROPERTIES. EROSION CONTROL MEASURES ARE NOT LIMITED TO THOSE NOTED ON THE EROSION CONTROL PLAN.
  - ALL DISTURBED AREAS SHALL BE REVEGETATED OR OTHERWISE LANDSCAPED AFTER CONSTRUCTION IN ACCORDANCE WITH THE REVEGETATION GUIDELINES CONTAINED IN THE STANDARD EROSION CONTROL NOTES ON THIS PLAN AND IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN FOR THIS PROJECT. THE APPROVED LANDSCAPE PLAN DEPICTS SOIL AND SEEDING AREAS WITH SPECIFIED TYPES AND AMOUNTS.
  - NETTING WILL BE PLACED ON CONSTRUCTED SLOPES GREATER THAN 3:1. PHOTO VALUES ARE SHOWN ON THE PLAN. NETTING SHALL BE GREENPAC AMERICA W5072 OR EQUAL AGRICULTURAL STRAW BLANKET WITH PHOTO DEGRADABLE NETTING ON BOTH SIDES. NETTING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
  - STRAW BALES WILL BE PLACED AT TOP OF NEWLY CONSTRUCTED SLOPES OF 3:1 OR GREATER AT SELECTED LOCATIONS AS REQUIRED.
  - PLACE SALT FENCE AS SHOWN ON THE EROSION CONTROL PLAN AND AS MAY BE REQUIRED TO PREVENT SEDIMENT MOVEMENT TO ADJACENT PROPERTY. STAW BALES OR EROSION CONTROL LOGS MAY BE SUBSTITUTED WITH APPROVAL OF THE ENGINEER.
- ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED ACCORDING TO EL PASO COUNTY STANDARD SPECIFICATIONS, LATEST REVISION.
- OVER LOT GRADING TO BE COMPLETE PRIOR TO THE INSTALLATION OF ALL UTILITIES.

SHEET INDEX

PLAN SET SHEET NO.	SHEET TITLE	MVE DRAWING NO.
C 1.1	COVER SHEET	61093-GEC-CS
C 1.2	GRADING PLAN (NORTH)	61093-GEC-GP
C 1.3	GRADING PLAN (SOUTH)	61093-GEC-GP2
C 1.4	CIVIL DETAILS	61093-GEC-CD
C 1.5	EROSION CONTROL PLAN	61093-GEC-EC
C 1.6	EROSION CONTROL DETAILS	61093-GEC-ED
C 1.7	EROSION CONTROL DETAILS	61093-GEC-ED2

SOILS & GEOLOGIC HAZARD STUDY NOTE:

A STUDY ENTITLED "SOIL GEOLOGY AND GEOLOGIC HAZARD STUDY, LINCOLN PLAZA DRIVE AND BRADLEY ROAD, SOUTHEAST CORNER, EL PASO COUNTY, COLORADO" WAS PREPARED BY ENTECH ENGINEERING INC. WHICH IS DATED APRIL 12, 2005. THE IDENTIFICATION OF GEOLOGIC HAZARDS INCLUDED ARTIFICIAL FILL HYDROCOMPACTION, AND EXPANSIVE SOILS. MITIGATION OF THESE HAZARDS ARE TO BE CONDUCTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF SAID STUDY. RITUAL FILL ENCOUNTERED DURING EARTHWORK OPERATIONS ON THE SITE SHALL BE REMOVED AND RECOMPACTED IN ACCORDANCE WITH THE STUDY RECOMMENDATIONS. GRADING ADJACENT TO STRUCTURES SHALL BE ACCORDING TO THE GRADING NOTES ON THIS PLAN AND THE RECOMMENDATIONS OF THE SAID STUDY TO MITIGATE THE POTENTIAL FOR HYDROCOMPACTION AND LOOSE SOILS. ENGINEERED FOUNDATION DESIGNS SHALL BE REQUIRED IN ORDER TO MITIGATE THE POTENTIAL OF EXPANSIVE SOILS ON THE SITE.

MAP NOTES

- BOUNDARY BEARINGS AND DISTANCES SHOWN ON THIS MAP ARE RELATIVE TO THE SOUTH LINE OF LOT 1A, BRADLEY CROSSROADS SUBDIVISION FILING NO. 1B, ASSUMED TO BEAR N89°43'38"W.
- THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY MVE, INC. USING DATA PROVIDED BY POLARIS SURVEYING INC. ELEVATIONS SHOWN ARE RELATIVE TO THE CITY OF COLORADO SPRINGS CONTROL NETWORK (FWS DATUM).

FLOODPLAIN STATEMENT

NO PORTION OF THE SUBJECT PROPERTY IS LOCATED WITHIN FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA (SFHA) AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR EL PASO COUNTY, COLORADO AND INCORPORATED AREAS - MAP NUMBER 08041C0763G, EFFECTIVE DECEMBER 7, 2018.

<b>TIMING</b> ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING: EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED:	APRIL 2019 - NOVEMBER 2019 NOVEMBER 2019
<b>AREAS</b> TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED OR GRADED:	5.28 ACRES
<b>RECEIVING WATERS</b> NAME OF RECEIVING WATERS:	FOUNTAIN CREEK

LEGEND

EXISTING	PROPOSED
--- 5985 ---	--- 5985 ---
--- 84 ---	--- 84 ---
[CONCRETE AREA]	[CONCRETE AREA]
[ASPHALT AREA]	[ASPHALT AREA]
[CURB AND GUTTER]	[CURB AND GUTTER]
[BUILDING/ BUILDING OVERHANG]	[BUILDING/ BUILDING OVERHANG]
[DECK]	[DECK]
[RETAINING WALL - SOLID/ ROCK]	[RETAINING WALL - SOLID ROCK]
[SIGN]	[SIGN]
[BOLLARD]	[BOLLARD]
[WOOD FENCE]	[WOOD FENCE]
[CHAIN LINK FENCE]	[CHAIN LINK FENCE]
[BARBED WIRE FENCE]	[BARBED WIRE FENCE]
[TREE (EVERGREEN/DECIDUOUS)]	[TREE (EVERGREEN/DECIDUOUS)]
[SHRUB]	[SHRUB]
[ROCK]	[ROCK]
	[TOP OF WALL/GRADE AT BOTTOM OF WALL/ FLOWLINE]
	[SPOT ELEVATION]
	[FL = FLOWLINE]
	[TSW = TOP OF SIDEWALK]
	[FINISHED FLOOR ELEVATION]

OWNERS STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

JORDAN E. GUILLANE, PRESIDENT  
J. ELIOT HOMES, INC.

3/18/19  
DATE

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED DRAINAGE PLANS AND SPECIFICATIONS.

DAVID R. GORMAN, P.E.  
FOR AND ON BEHALF OF M.V.E., INC.

3/18/19  
DATE

EL PASO COUNTY

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.

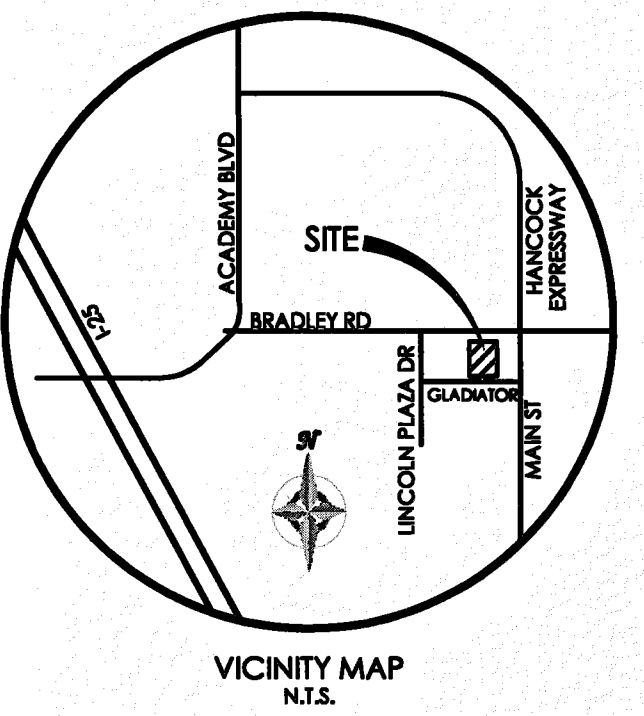
FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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.

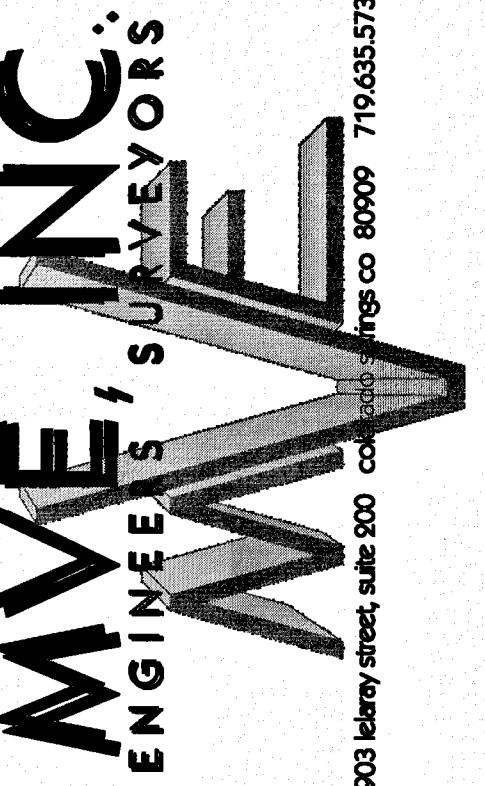
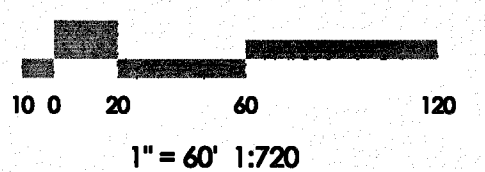
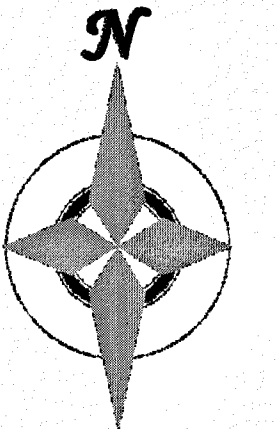
JENNIFER IRVINE, P.E.  
COUNTY ENGINEER / ECM ADMINISTRATOR

DATE

EPC PROJ NO. PPR1846



BENCHMARK  
N.T.S.



REVISIONS

DESIGNED BY  
DRAWN BY  
CHECKED BY  
AS-BUILT BY  
CHECKED BY

THE TOWNHOMES AT  
BRADLEY CROSSROADS

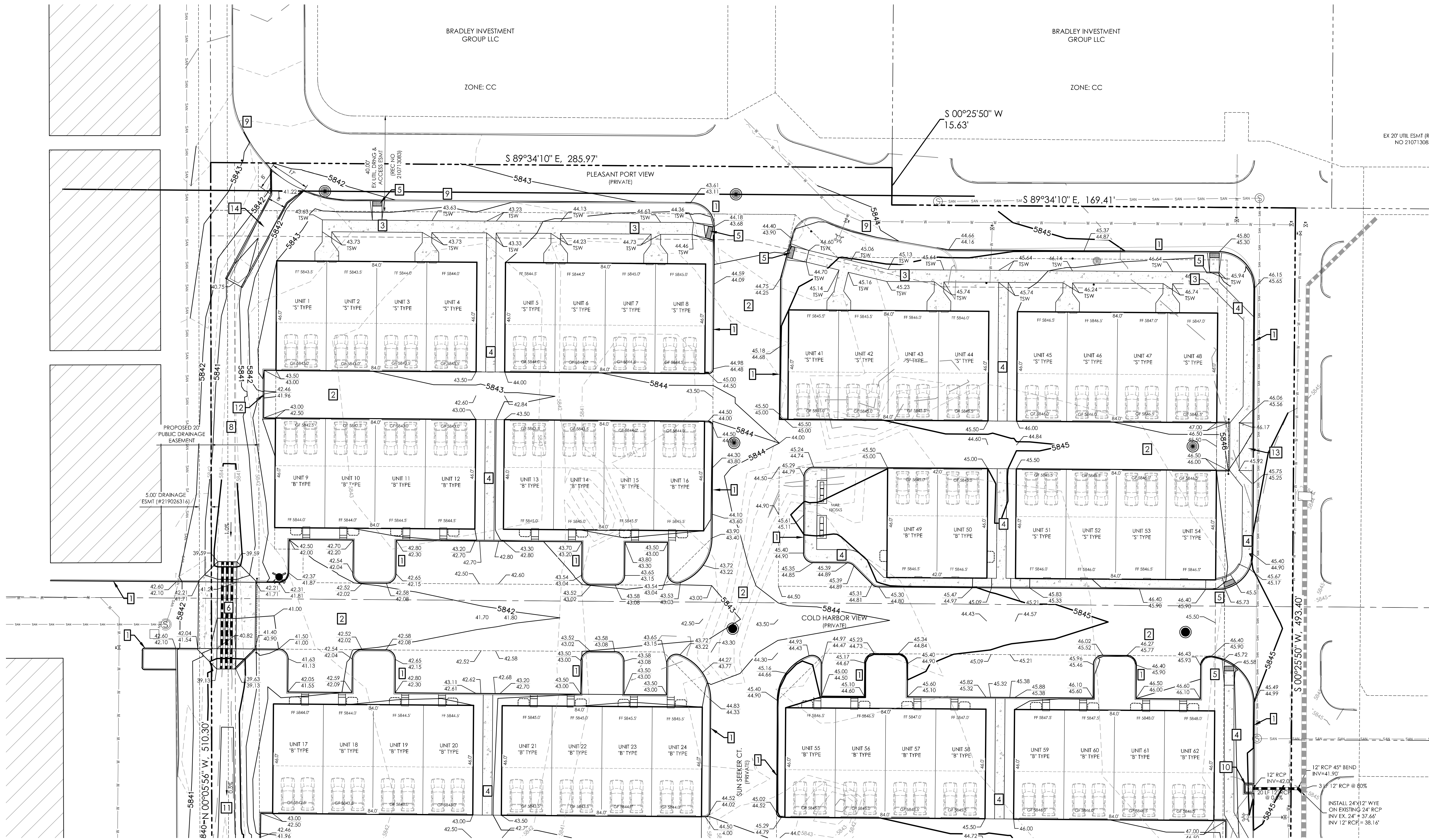
GRADING & EROSION  
CONTROL PLAN  
COVER SHEET

C1.1 MVE PROJECT 61093  
MVE DRAWING -GEC-CS

FEBRUARY 11, 2019  
SHEET 1 OF 7

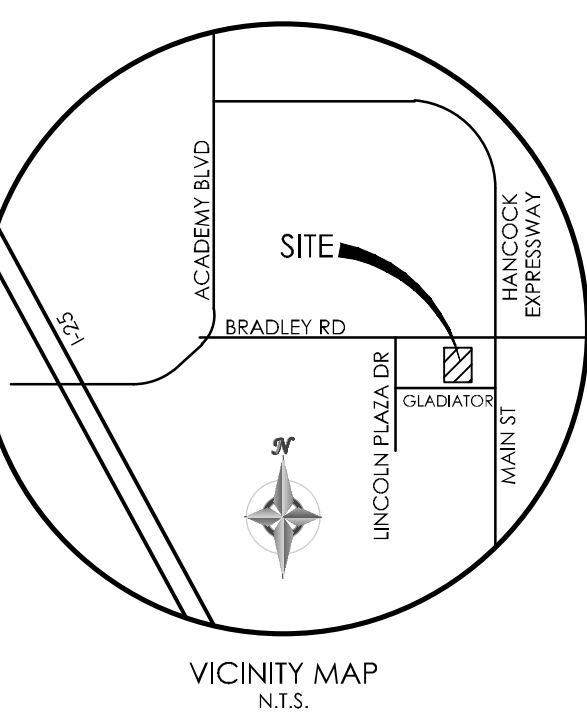


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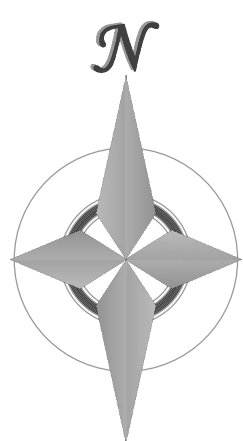


NOTE LEGEND:

- 1 INSTALL COUNTY STD TYPE B CURB & GUTTER
- 2 INSTALL ASPHALT PAVING w/ PARKING LOT MARKINGS
- 3 INSTALL CONCRETE SIDEWALK (5' WIDE)
- 4 INSTALL CONCRETE SIDEWALK (4' WIDE)
- 5 INSTALL PEDESTRIAN RAMP (SEE DETAILS)
- 6 INSTALL CONCRETE CHANNEL "TEXAS CROSSING" (SEE DETAIL)
- 7 INSTALL THICKENED EDGE SIDE WALK (SEE DETAIL)
- 8 INSTALL 4' WIDE ROCK SWALE (SEE DETAIL "A")
- 9 EXISTING CURB & GUTTER
- 10 INSTALL CDOT TYPE C INLET, H=2.5' W/ CLOSED MESH GRATE
- 11 INSTALL 5' WIDE ROCK SWALE (SEE DETAIL "B")
- 12 INSTALL 2' WIDE CURB DEPRESSION
- 13 INSTALL COUNTY STANDARD DRIVEWAY, DETAIL SD\_2-24.
- 14 REMOVE EXISTING CONCRETE DRAIN PAN AND REPLACE W/ NEW 8' WIDE x 40' LONG CONCRETE PAN (SEE DETAIL)



BENCHMARK



1" = 20' 1:240

**MVE, INC.**  
ENGINEERS / SURVEYORS  
1903 Library Street, Suite 300 Colorado Springs, CO 80909 719.635.5736

REVISIONS

DESIGNED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

THE TOWNHOMES AT  
BRADLEY CROSSROADS

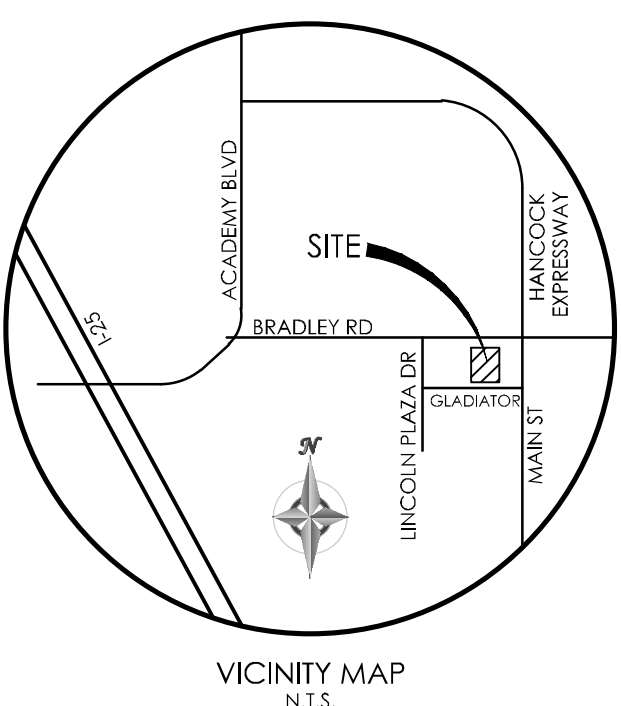
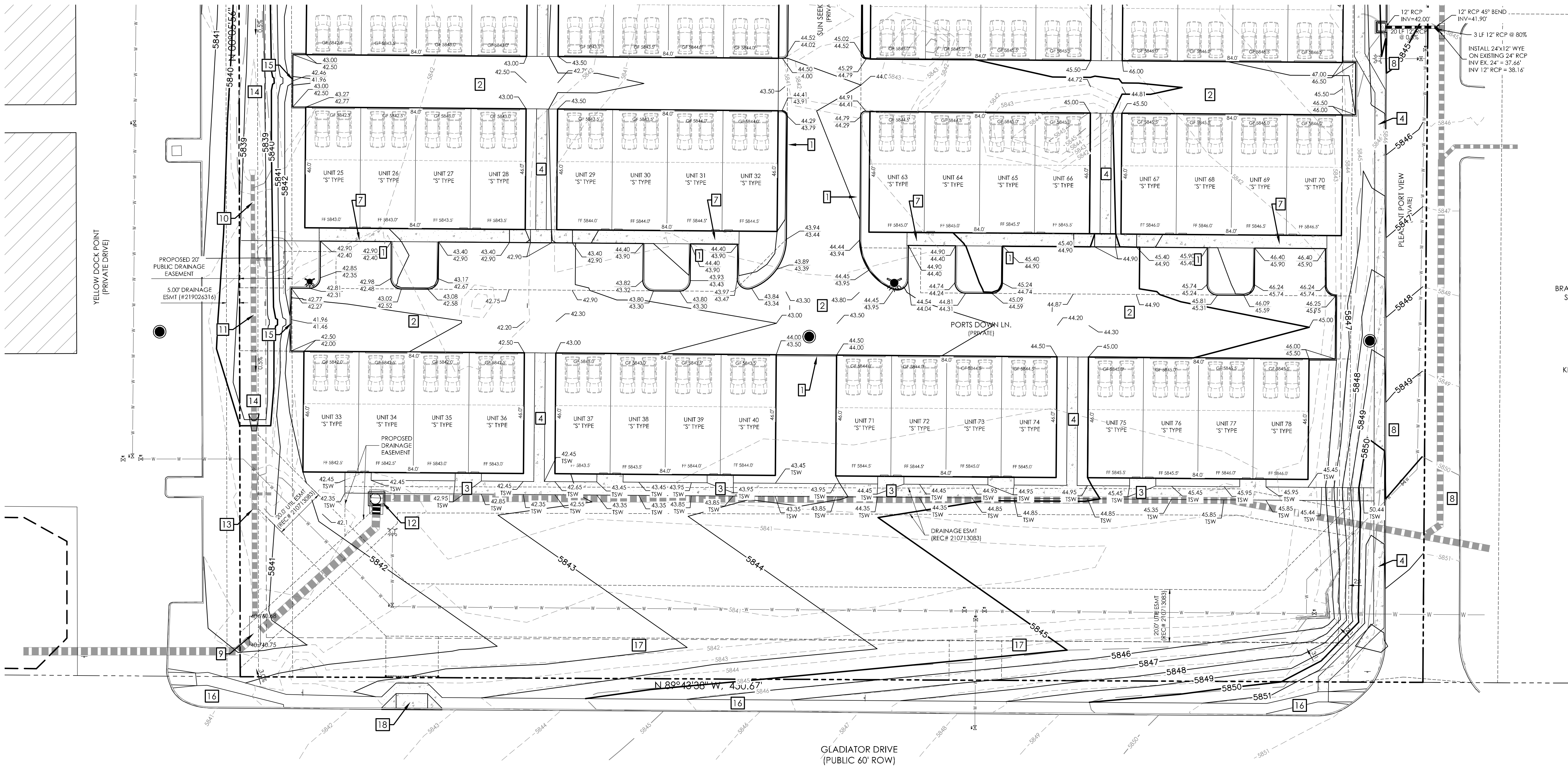
GRADING & EROSION  
CONTROL PLAN  
GRADING PLAN (NORTH)

C1.2 MVE PROJECT 61093  
MVE DRAWING -GEC-GP1

FEBRUARY 11, 2019  
SHEET 2 OF 7

EPC PROJ NO. PPR1846

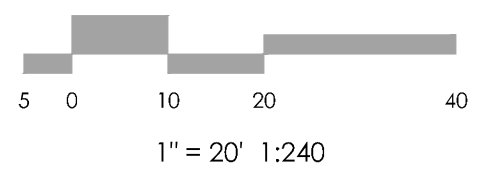
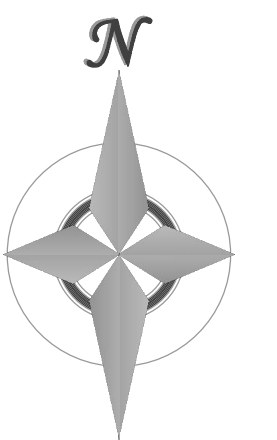




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1903 Jellery street, suite 200 colorado springs co 80909 719.635.5736

REVISIONS

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CHECKED BY  
AS-BUILT BY  
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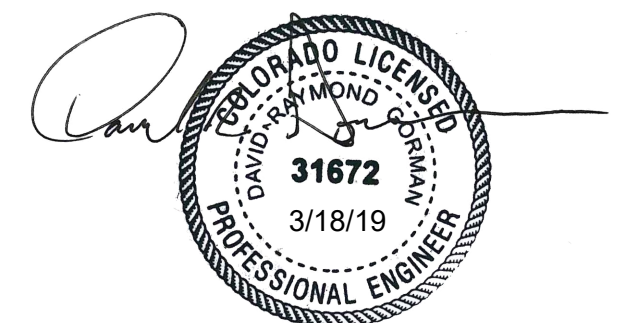
THE TOWNHOMES AT  
BRADLEY CROSSROADS

GRADING & EROSION  
CONTROL PLAN  
GRADING PLAN (SOUTH)

C1.2 MVE PROJECT 61093  
MVE DRAWING -GEC-GP1

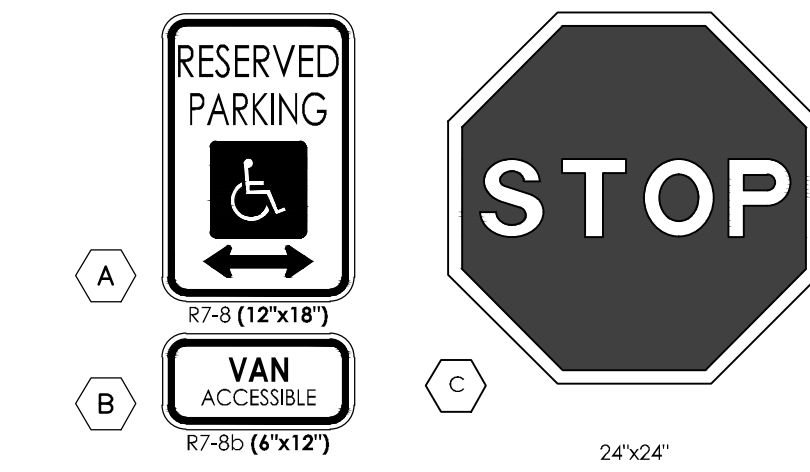
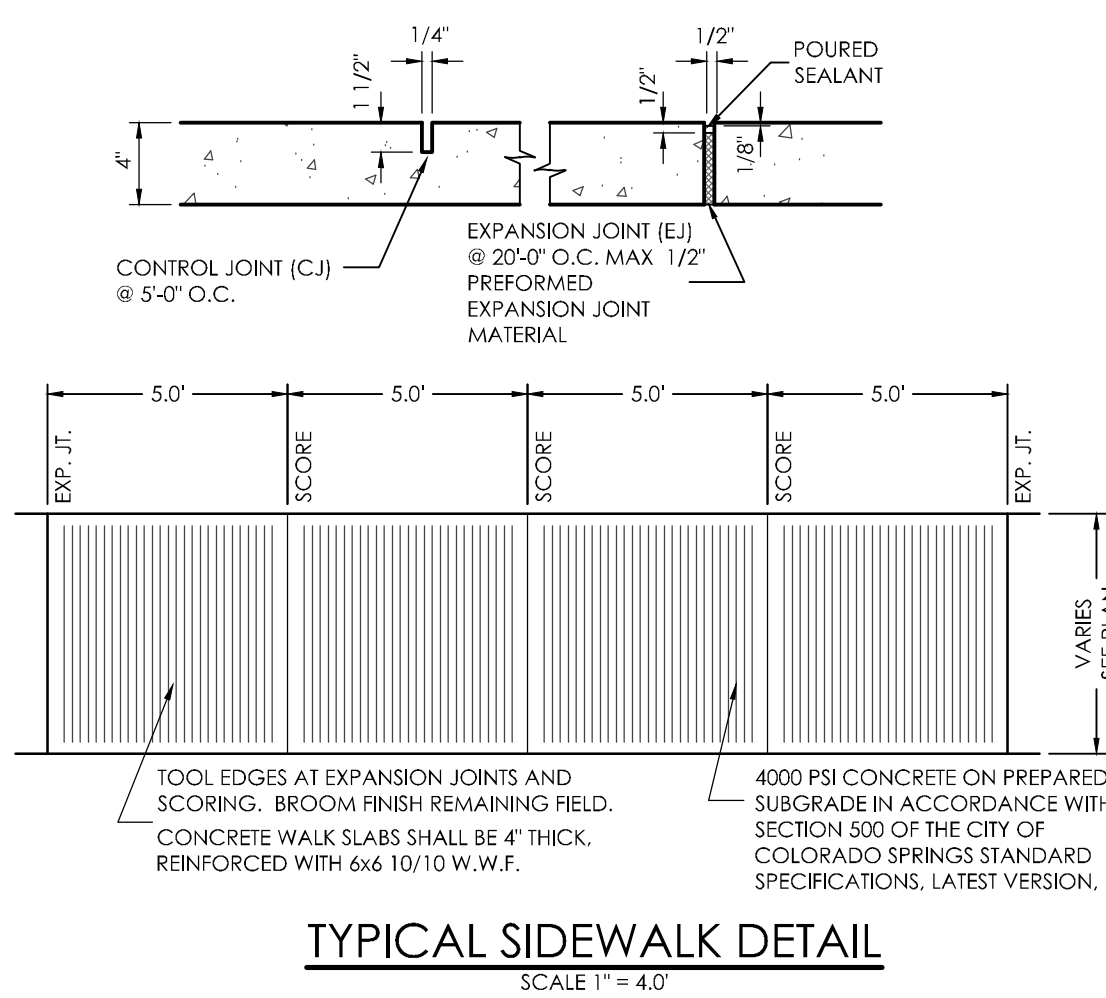
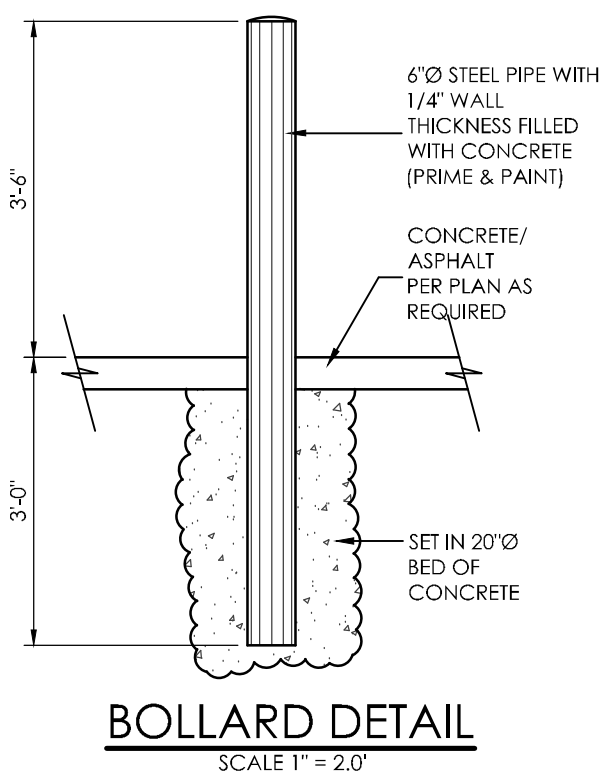
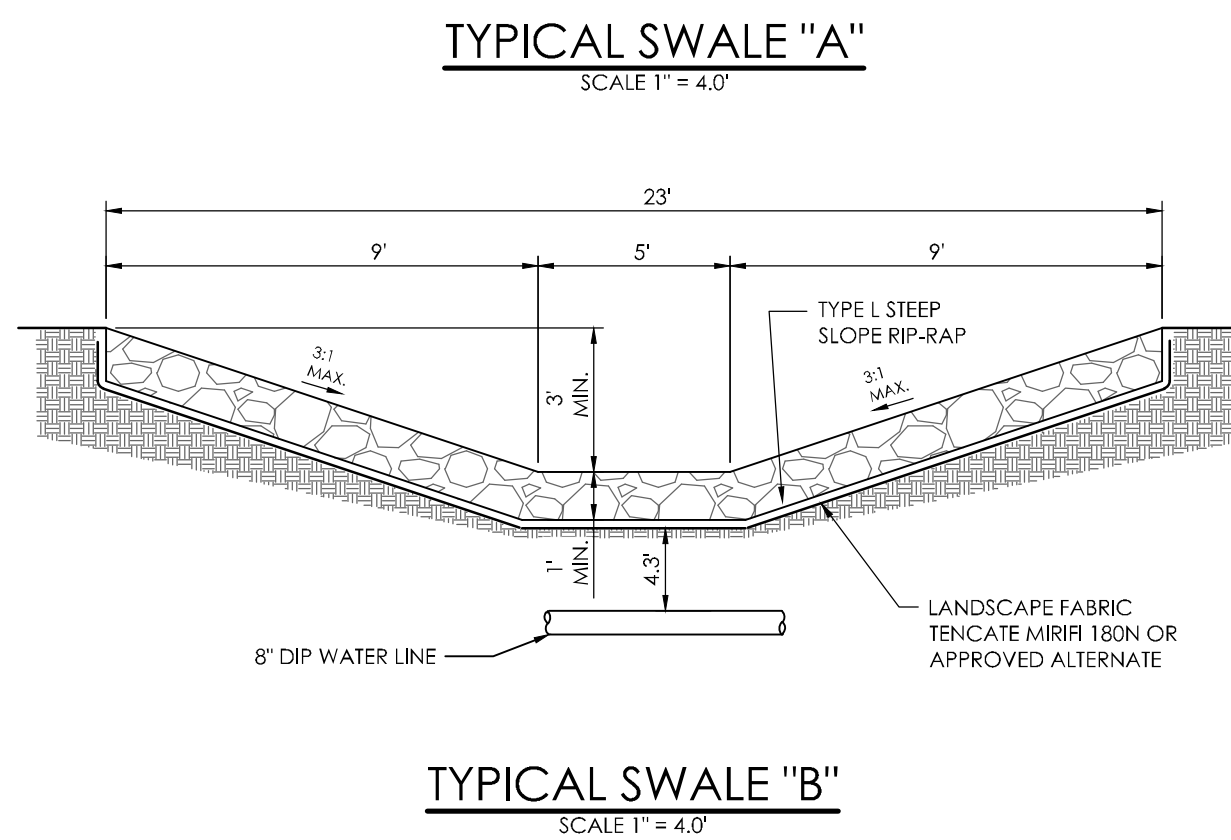
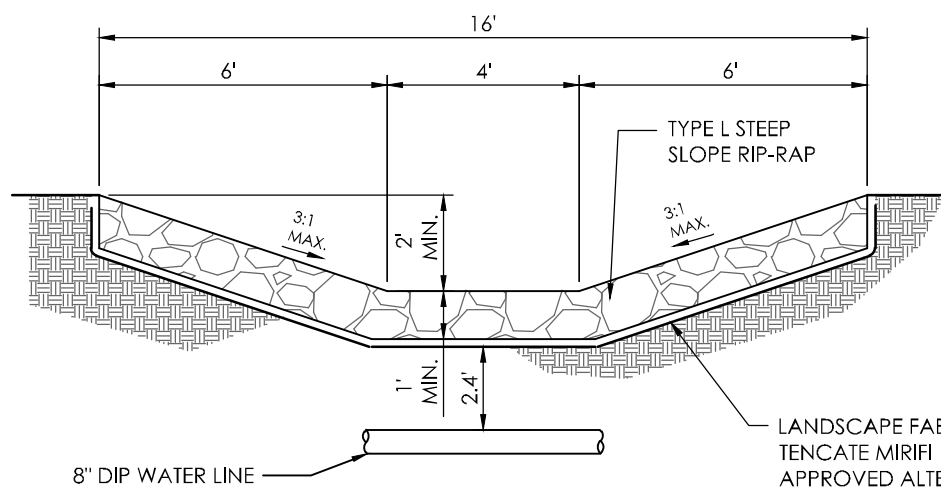
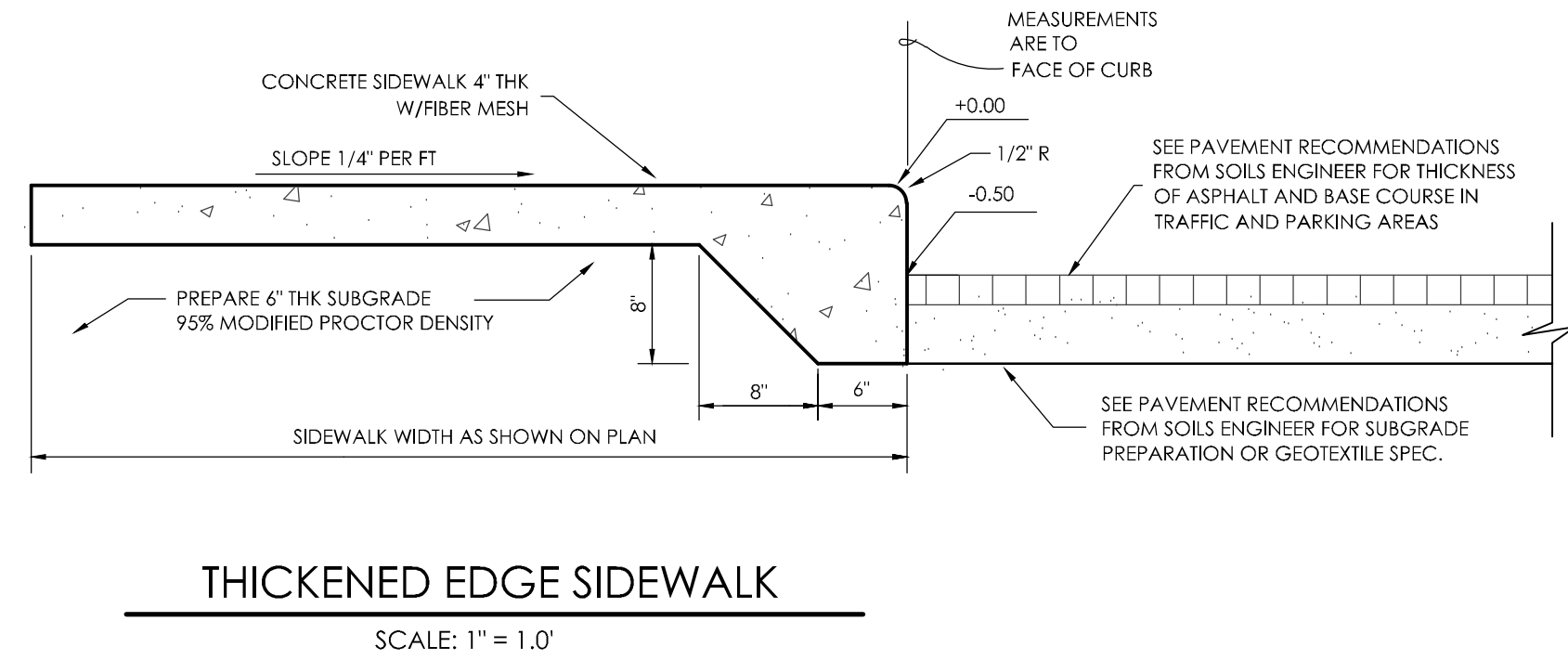
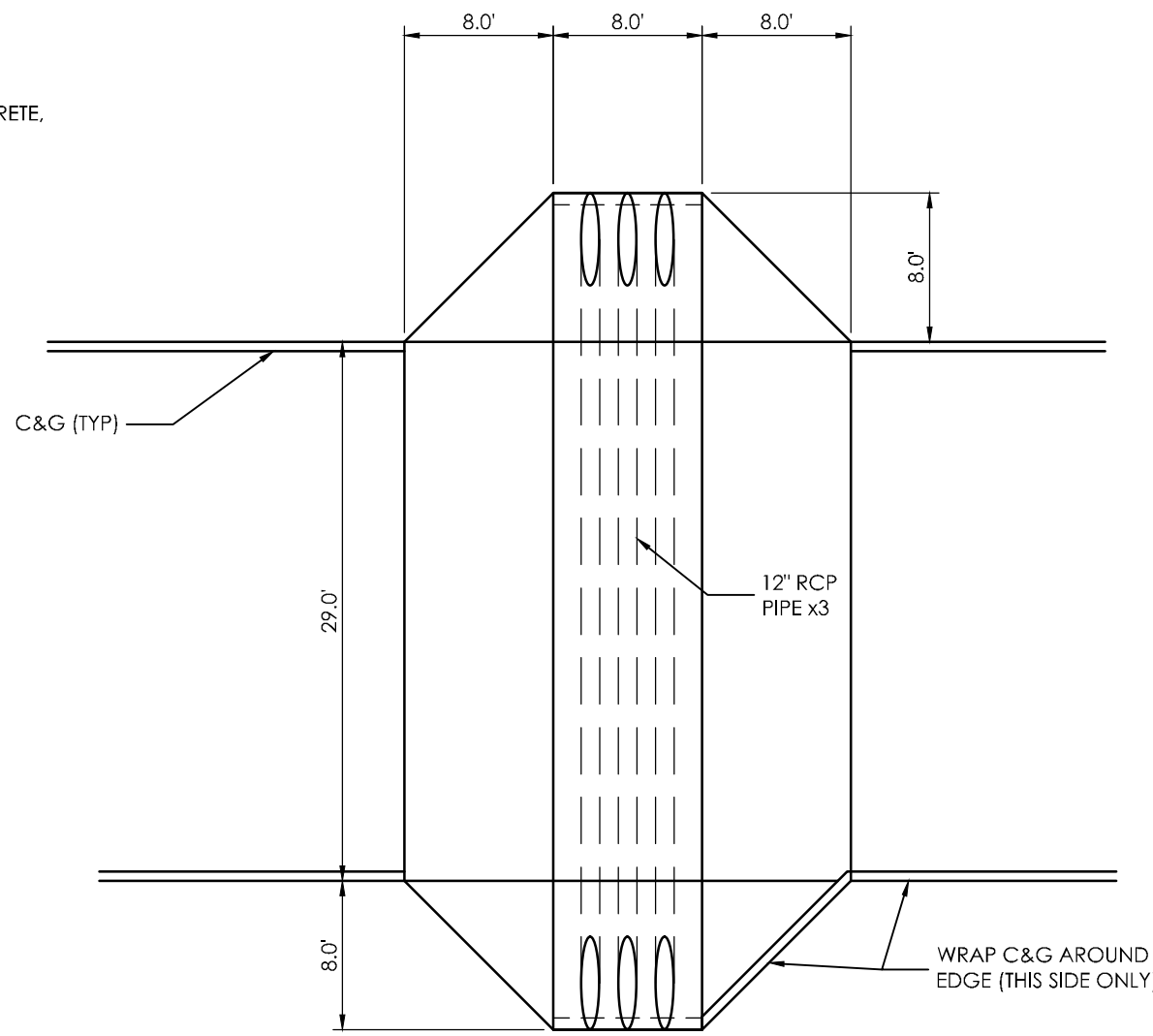
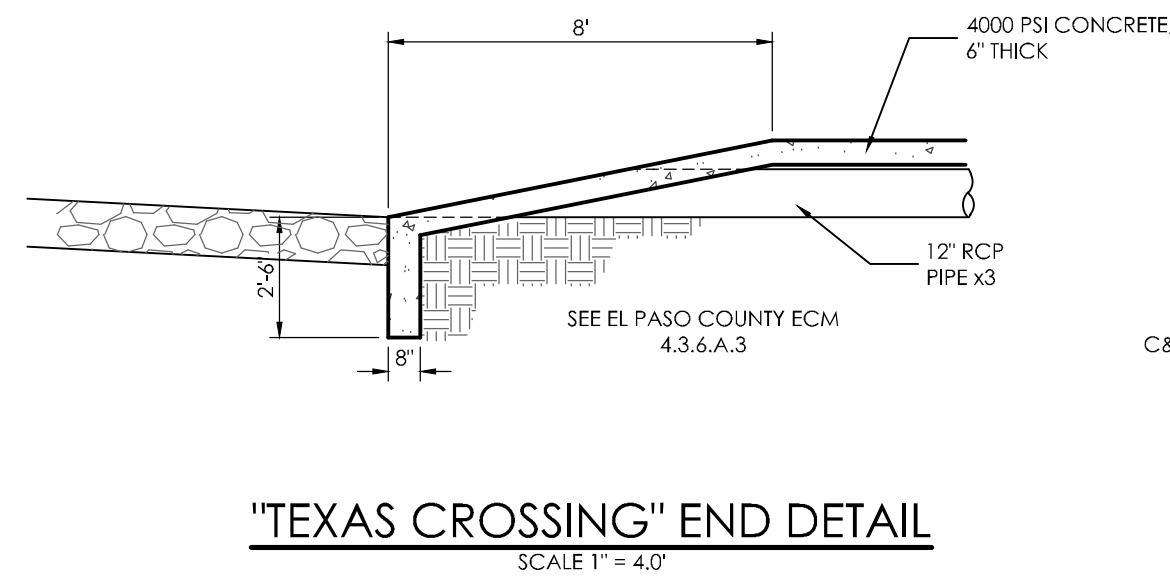
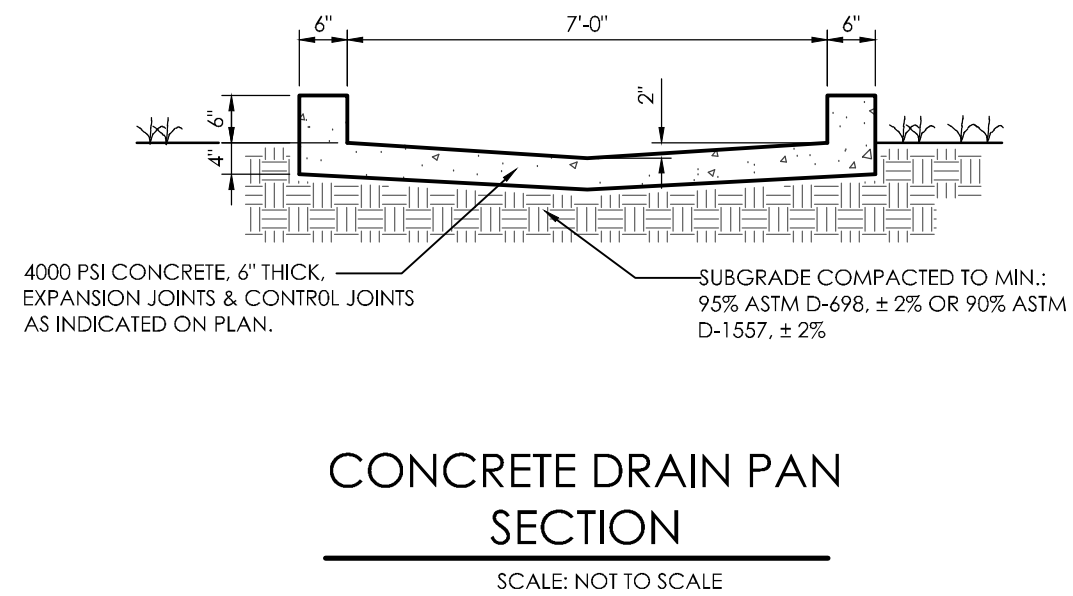
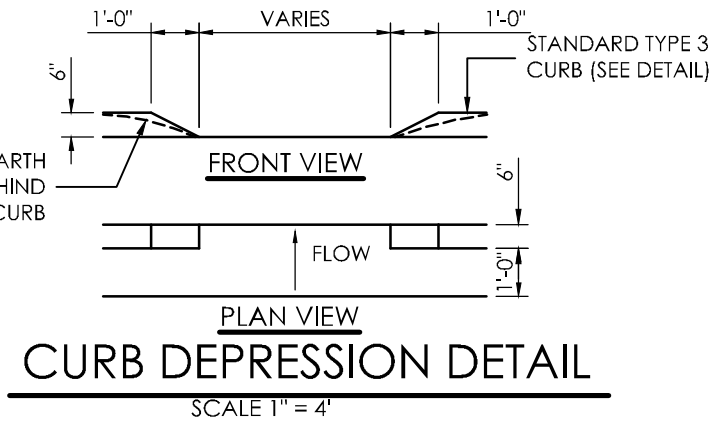
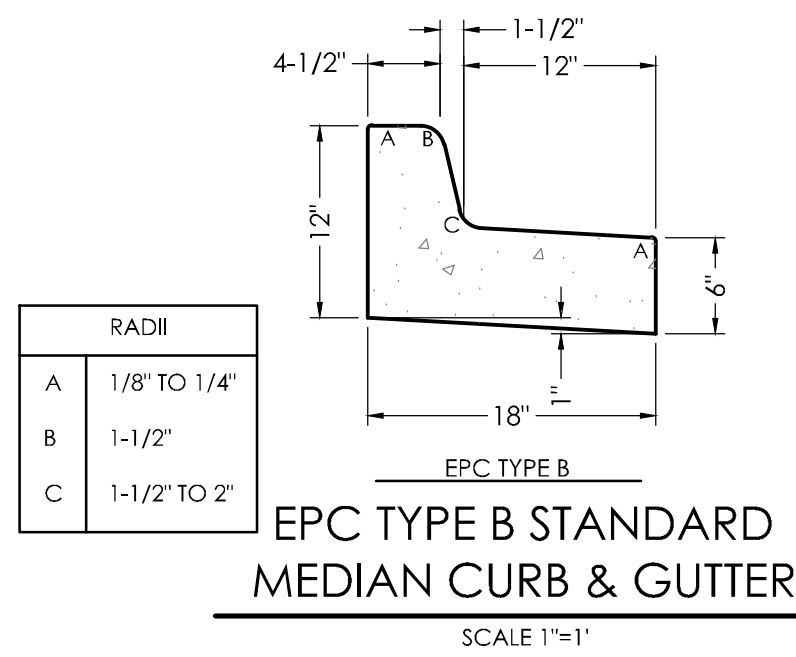
FEBRUARY 11, 2019  
SHEET 3 OF 7

EPC PROJ NO. PPR1846

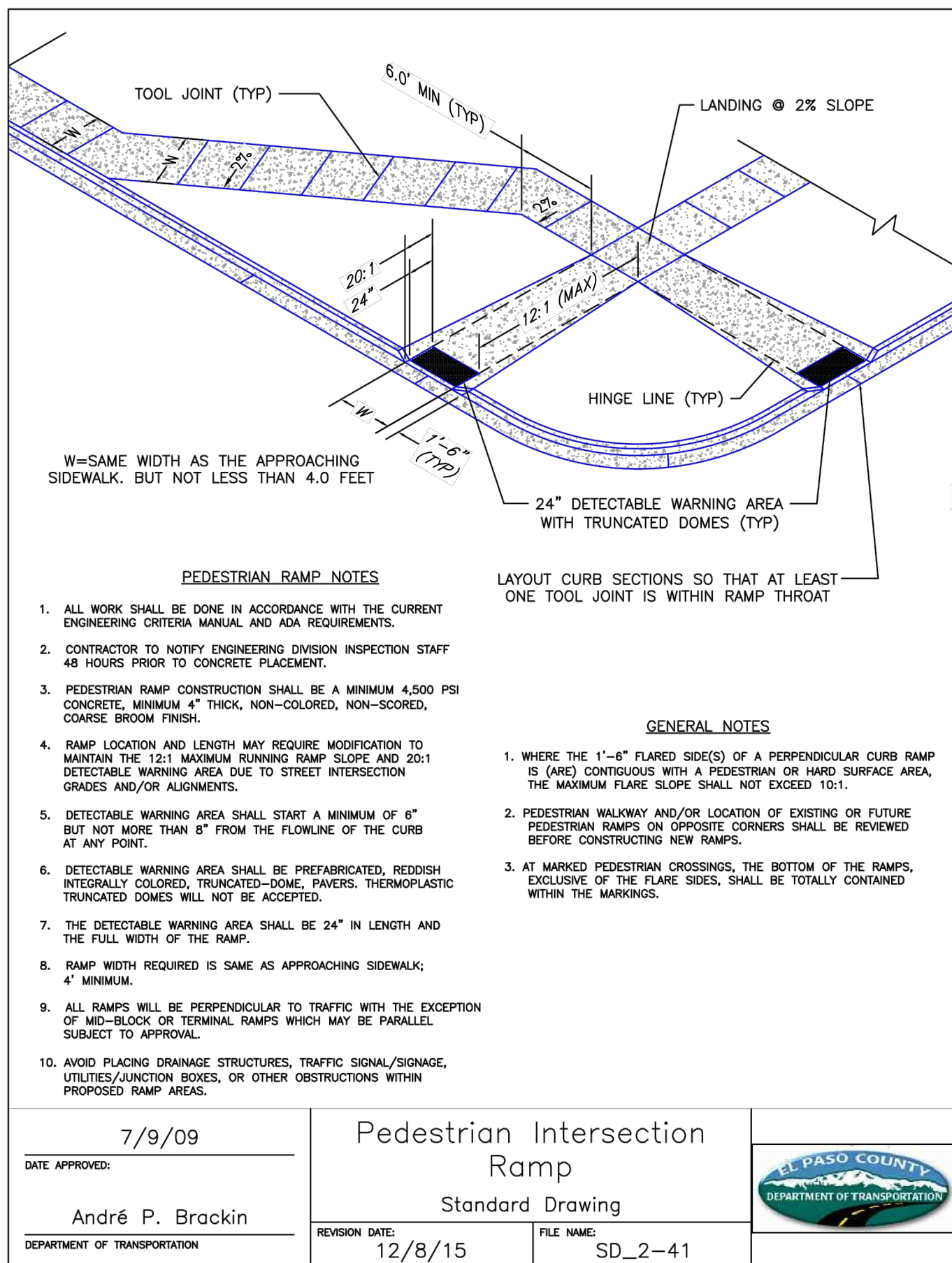


- NOTE LEGEND:**
- 1 INSTALL COUNTY STD TYPE B CURB & GUTTER
  - 2 INSTALL ASPHALT PAVING w/ PARKING LOT MARKINGS
  - 3 INSTALL CONCRETE SIDEWALK (5' WIDE)
  - 4 INSTALL CONCRETE SIDEWALK (4' WIDE)
  - 5 INSTALL EPC STD PED RAMP D-8
  - 6 INSTALL CONCRETE CHANNEL "TEXAS CROSSING" (SEE DETAIL)
  - 7 INSTALL THICKENED EDGE SIDE WALK (SEE DETAIL)
  - 8 EXISTING CURB & GUTTER
  - 9 EXISTING INLET
  - 10 REMOVE EXISTING 18" RCP
  - 11 REMOVE EXISTING 24" RCP
  - 12 REMOVE EXISTING INLET. INSTALL EPC TYPE 1 MANHOLE AND EXTEND EXISTING RCP AS REQUIRED. INSTALL MANHOLE RISERS AS NECESSARY TO MATCH FINISHED GRADE. CONTRACTOR TO VERIFY EXISTING PIPE INVERTS.
  - 13 INSTALL 24" RCP FLARED END SECTION ON EXISTING 24" RCP LINE
  - 14 INSTALL 5' WIDE ROCK SWALE (SEE DETAIL "B")
  - 15 INSTALL 2' WIDE CURB DEPRESSION
  - 16 EXISTING SIDEWALK (PROTECT IN PLACE)
  - 17 CONTRACTOR TO ENSURE THAT GRADING IS ACCOMPLISHED PER THIS PLAN AND SHALL VERIFY THAT THE LOW POINT IS NOT WITHIN THE EXTENTS OF THE UTILITY EASEMENT.
  - 18 INSTALL COUNTY STANDARD DRIVEWAY, DETAIL SD\_2-24.





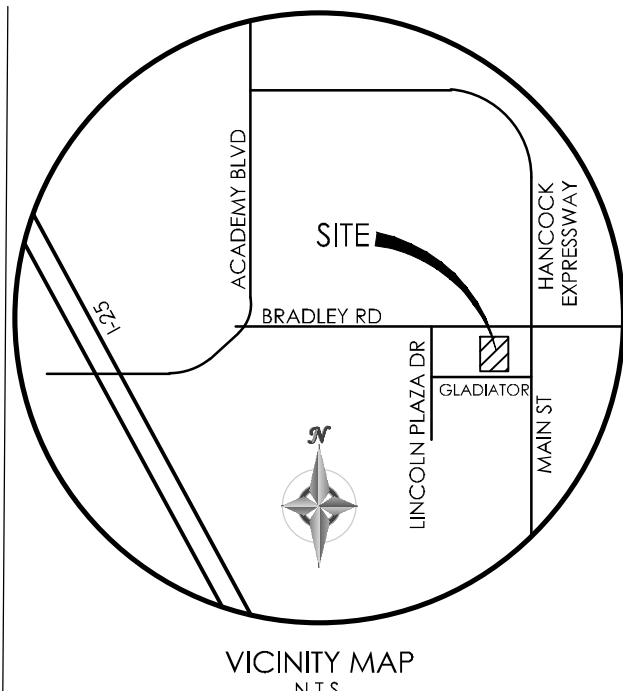
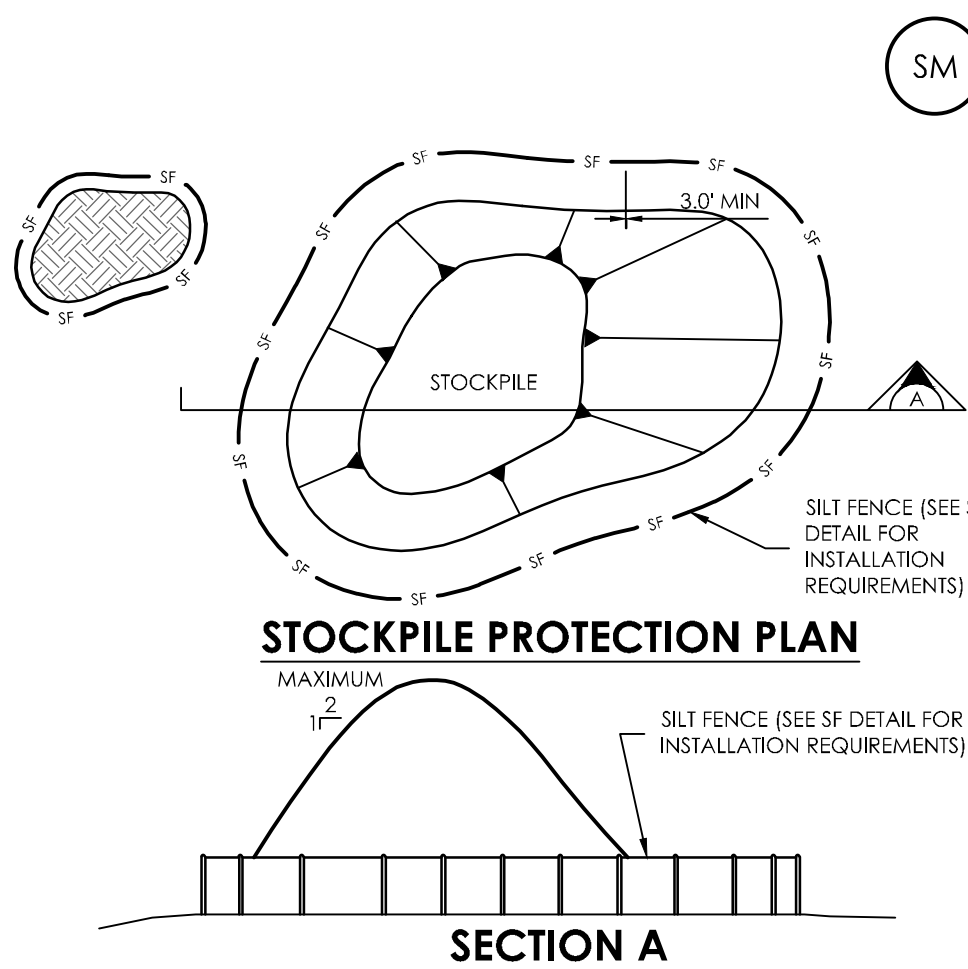
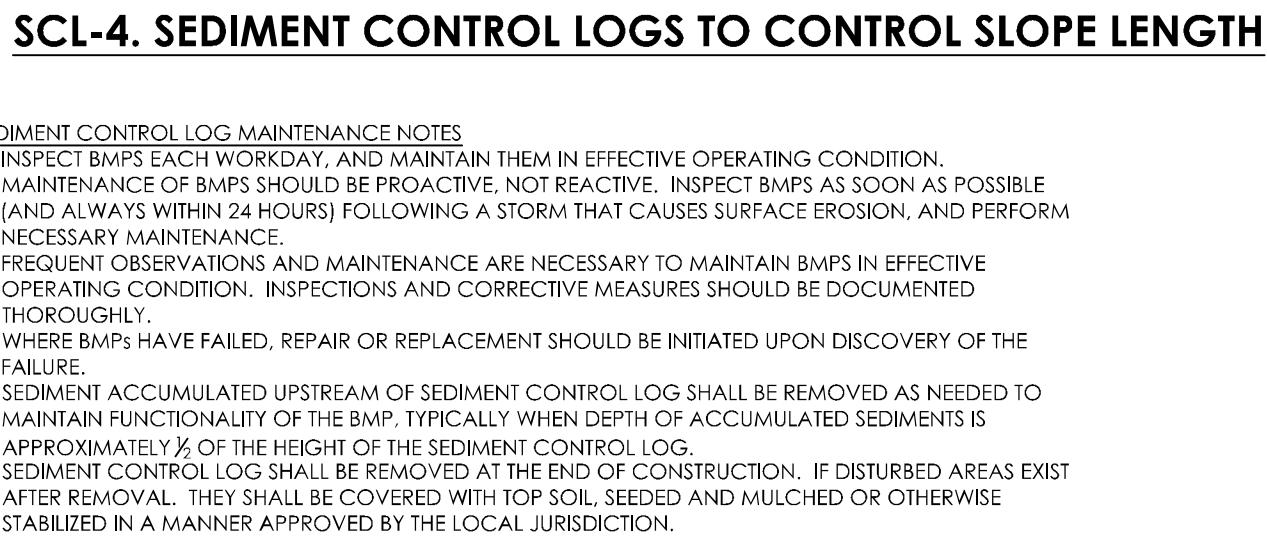
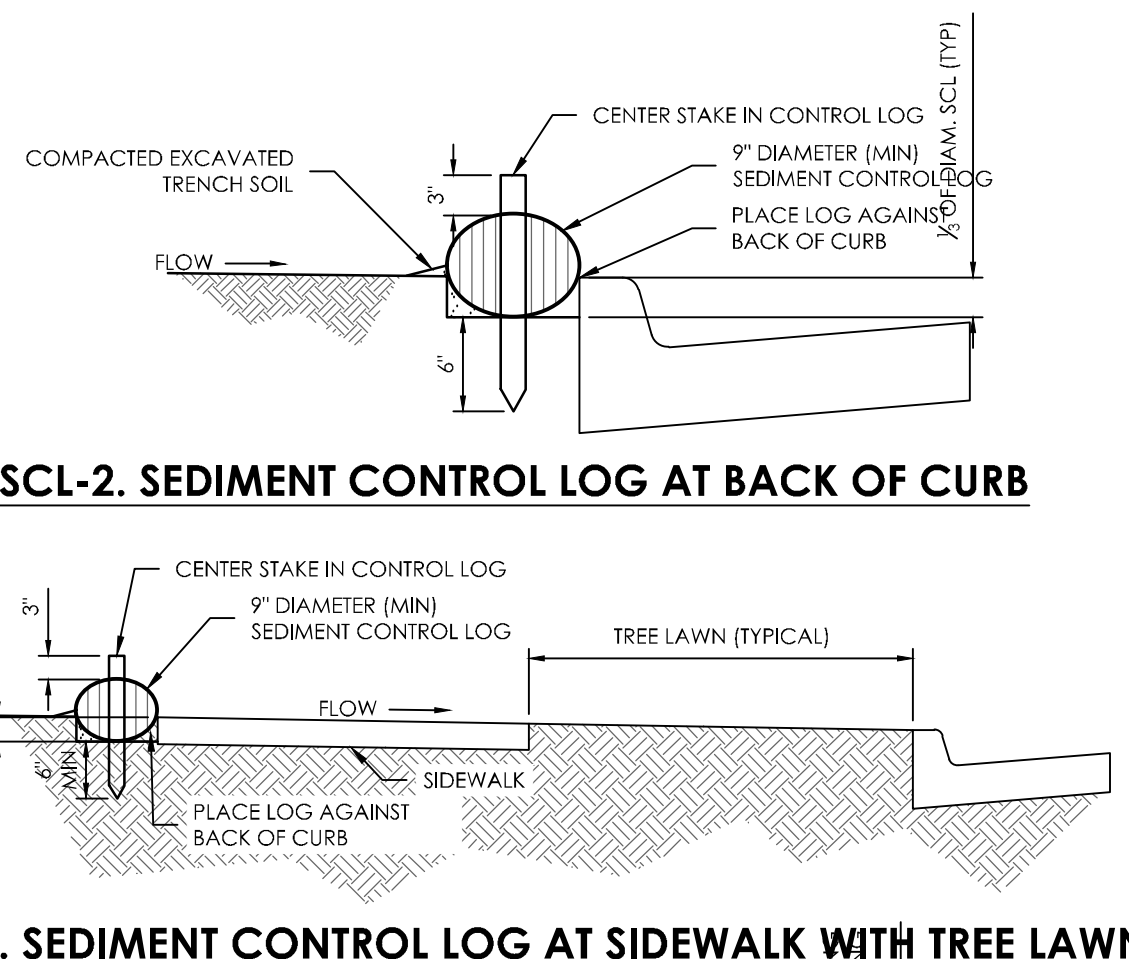
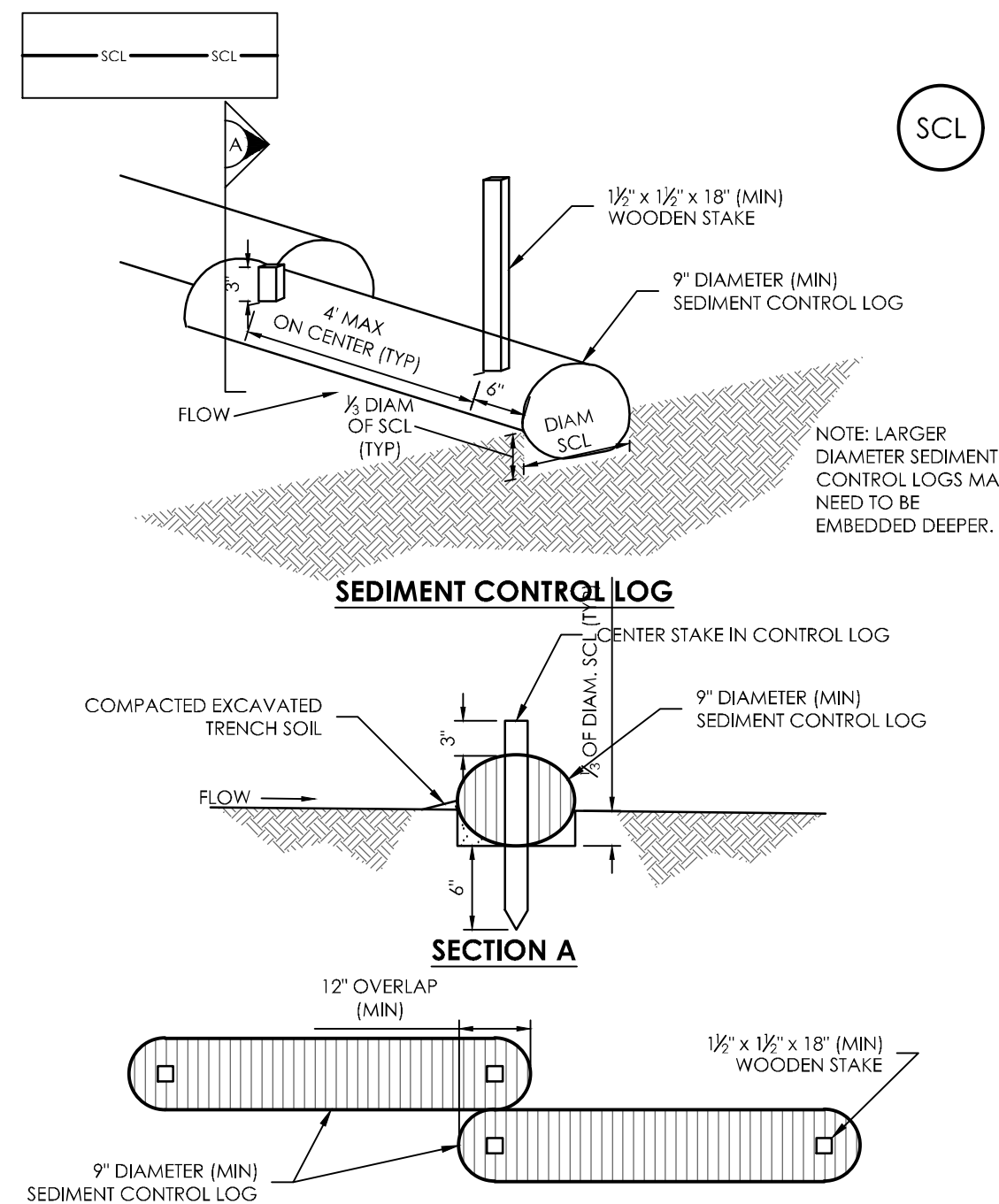
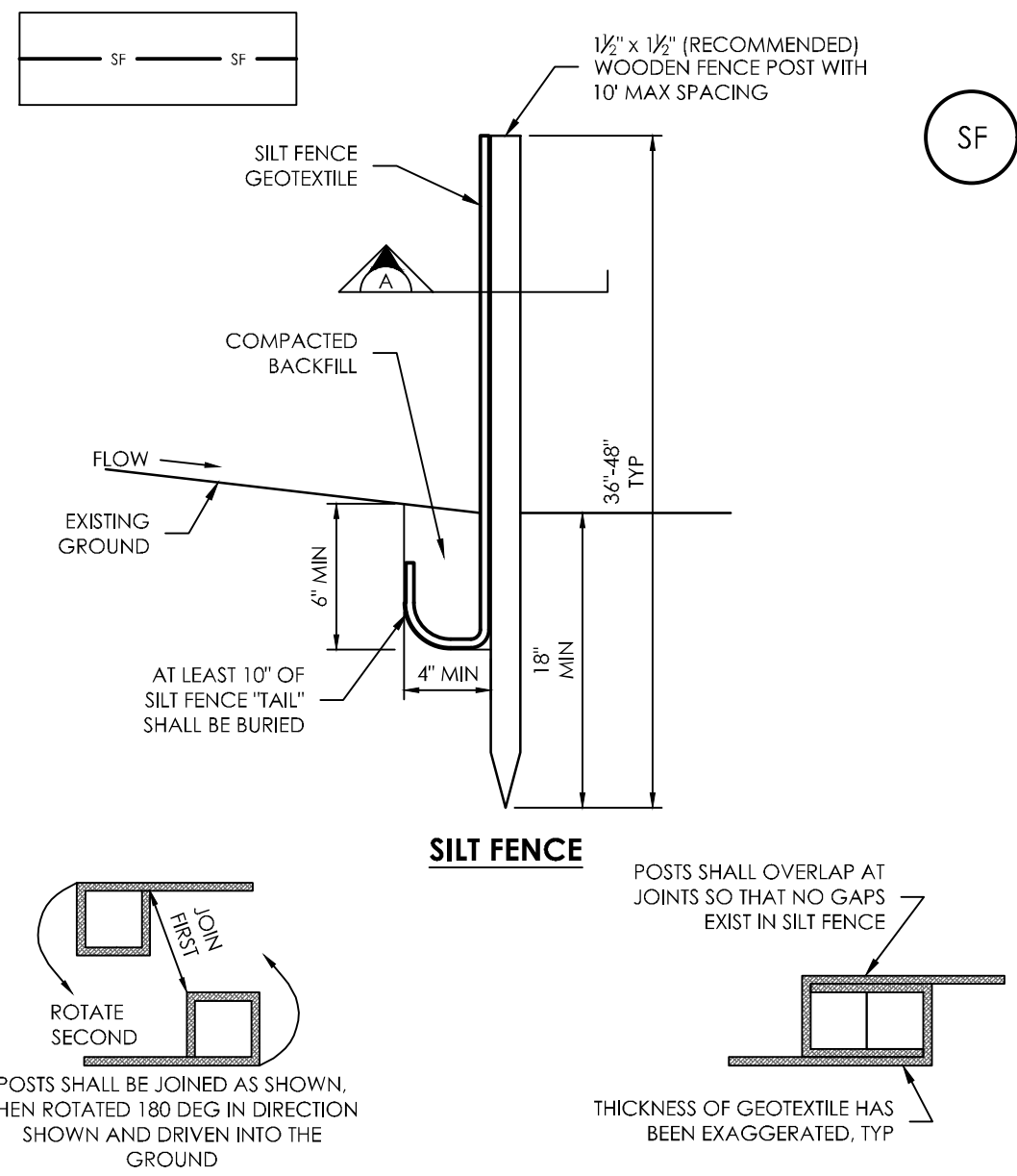
1. TYPOGRAPHY TO BE HELVETICA MEDIUM
2. NOTE: REFER TO SITE PLAN FOR LOCATIONS
3. REMOVE EXISTING SIGNS AND REUSE WHERE APPLICABLE (NOT SHOWN).
4. STOP SIGNS WILL BE INSTALLED BY THE DEVELOPER AT THE LOCATIONS SHOWN ON THE DEVELOPMENT PLAN TO MEET MUTCD STANDARDS AND THE CITY OF COLORADO SPRINGS TRAFFIC ENGINEERING STANDARDS.











BENCHMARK



REVISIONS

DESIGNED BY \_\_\_\_\_

DRAWN BY \_\_\_\_\_

CHECKED BY \_\_\_\_\_

AS-BUILTS BY \_\_\_\_\_

CHECKED BY \_\_\_\_\_

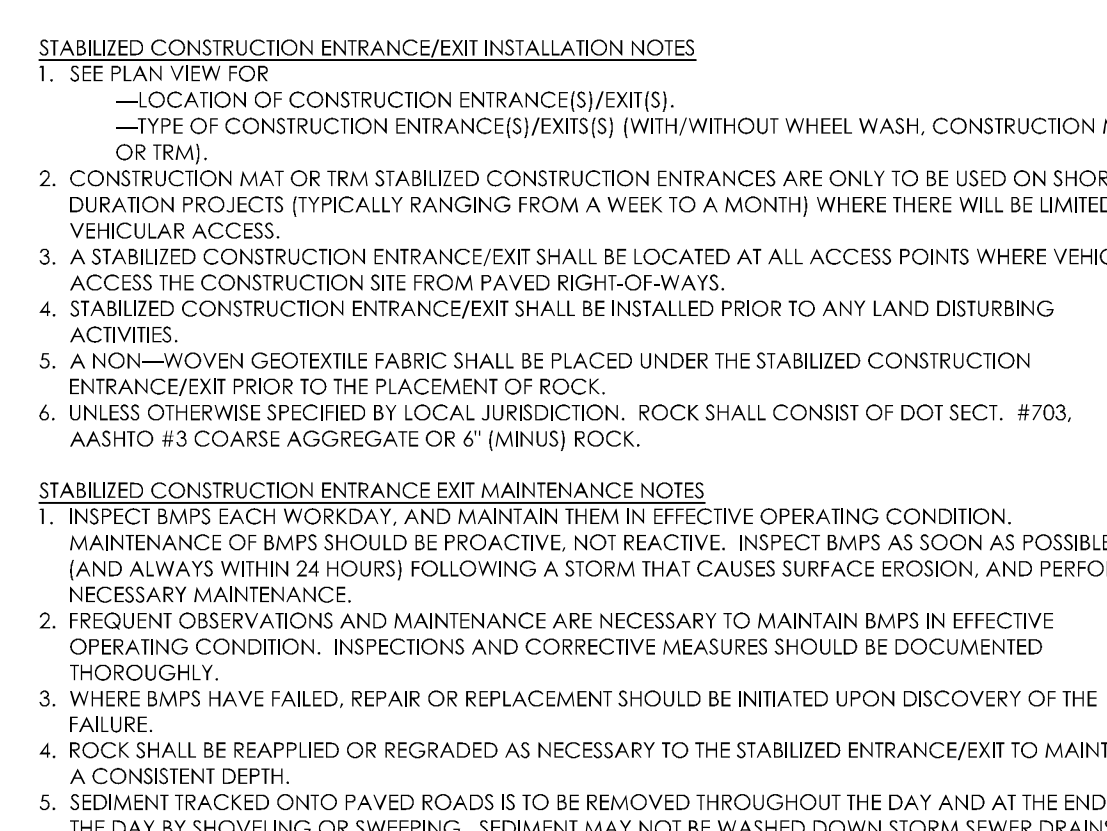
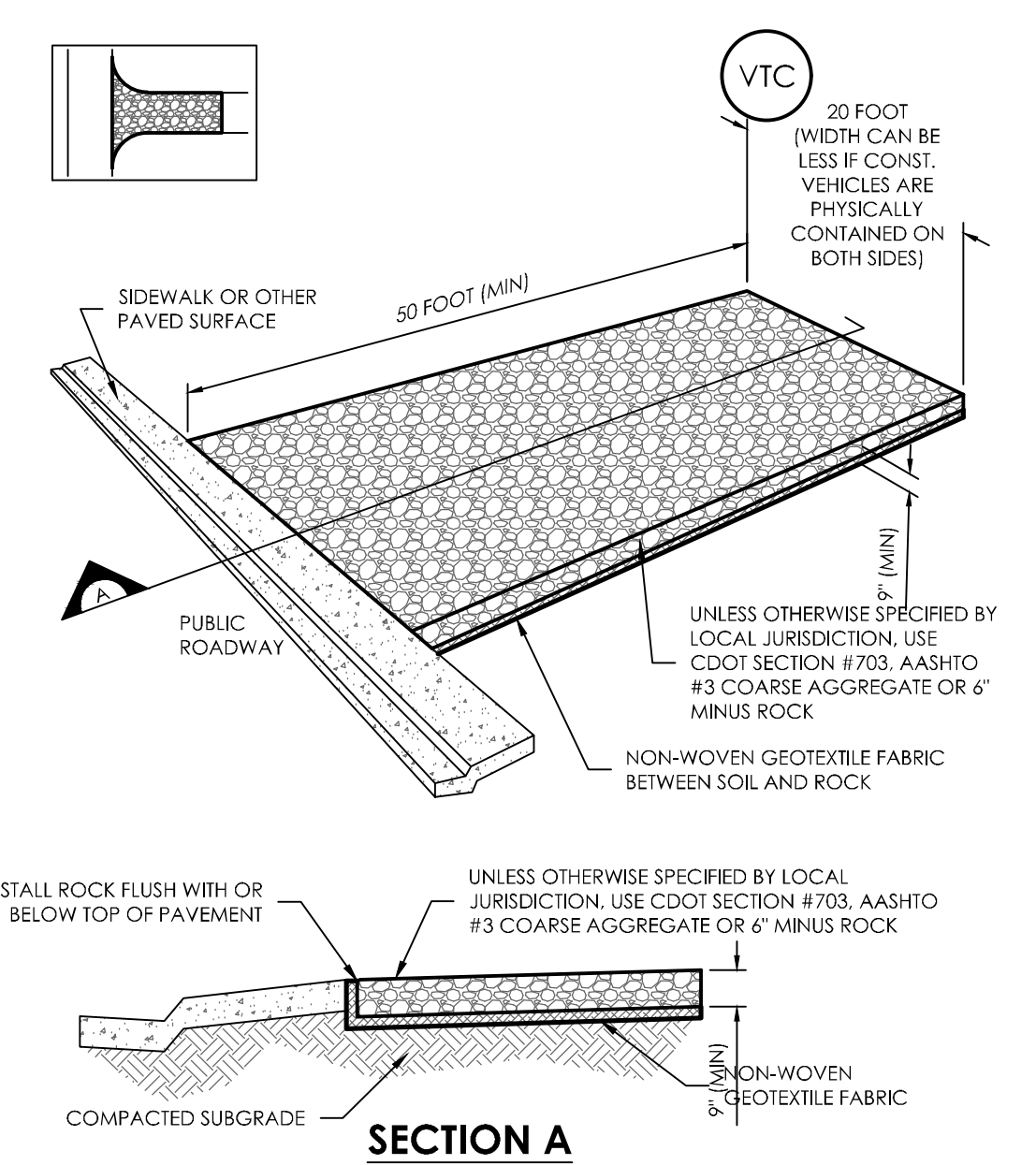
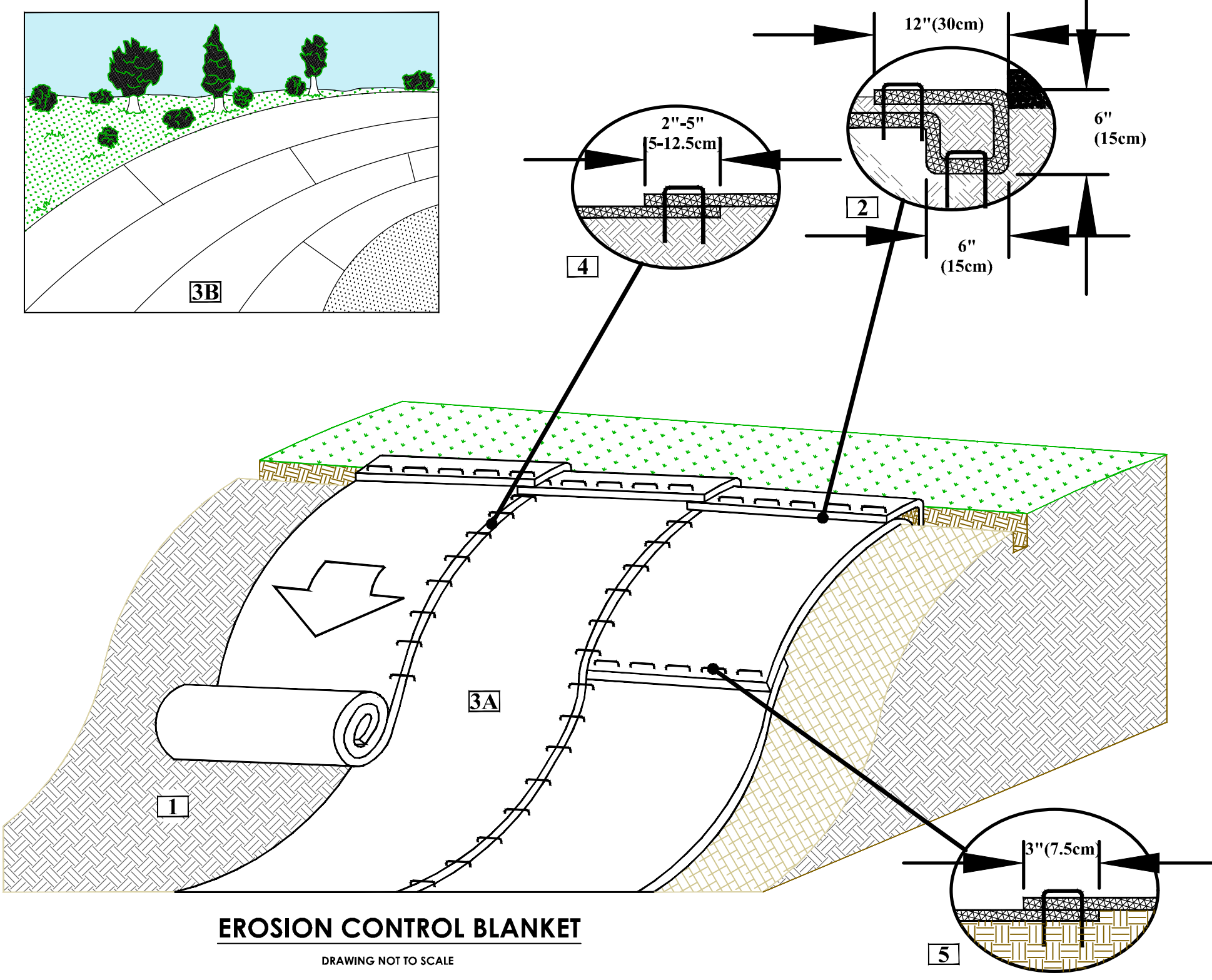
THE TOWNHOMES AT  
BRADLEY CROSSROADS

GRADING & EROSION  
CONTROL PLAN  
EROISION DETAILS

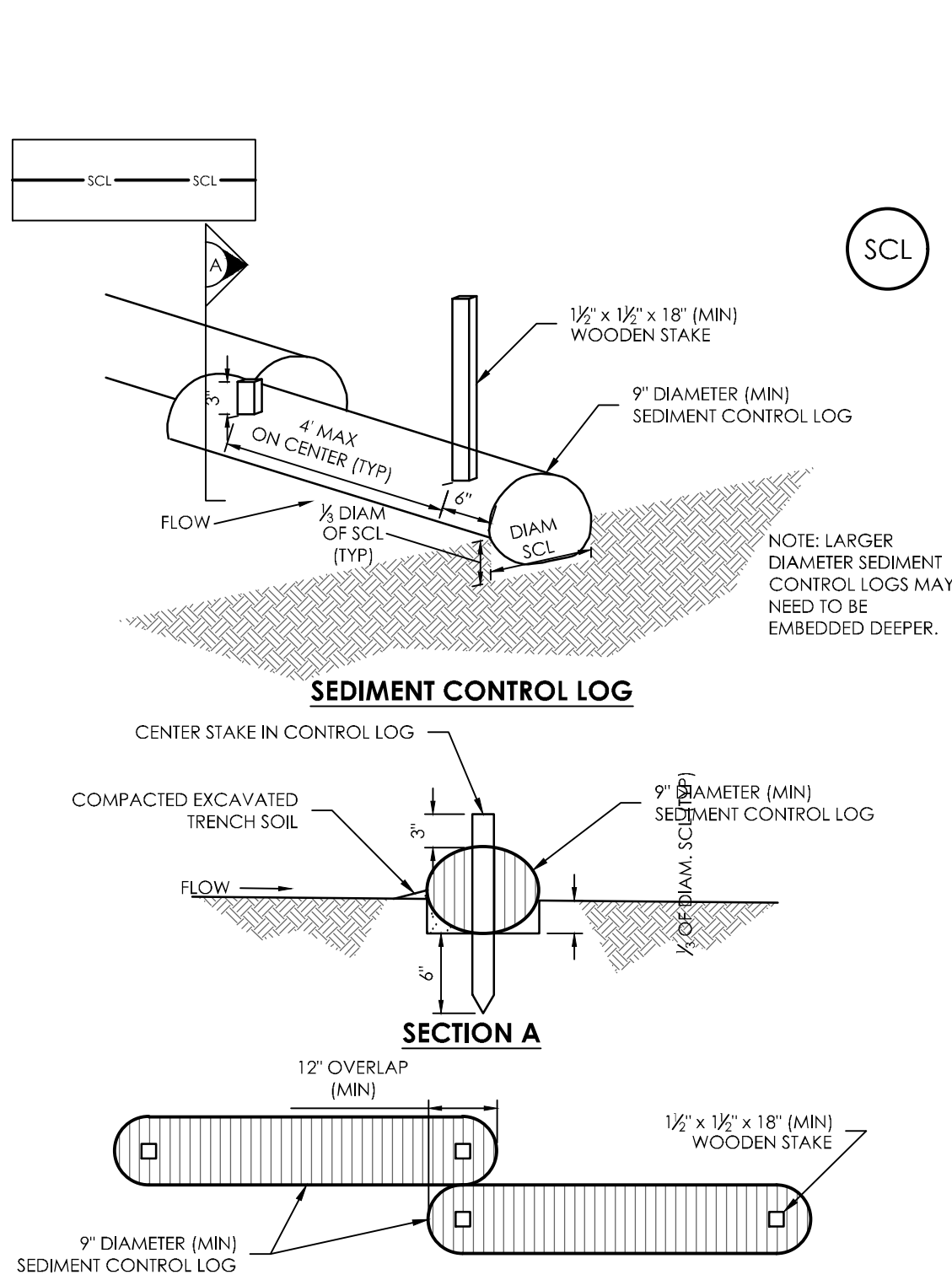
C1.6 MVE PROJECT 61093  
MVE DRAWING GEC-EC

FEBRUARY 11, 2019  
SHEET 6 OF 7

EPC PROJ NO. PPR1846







SCL-1. SEDIMENT CONTROL LOG

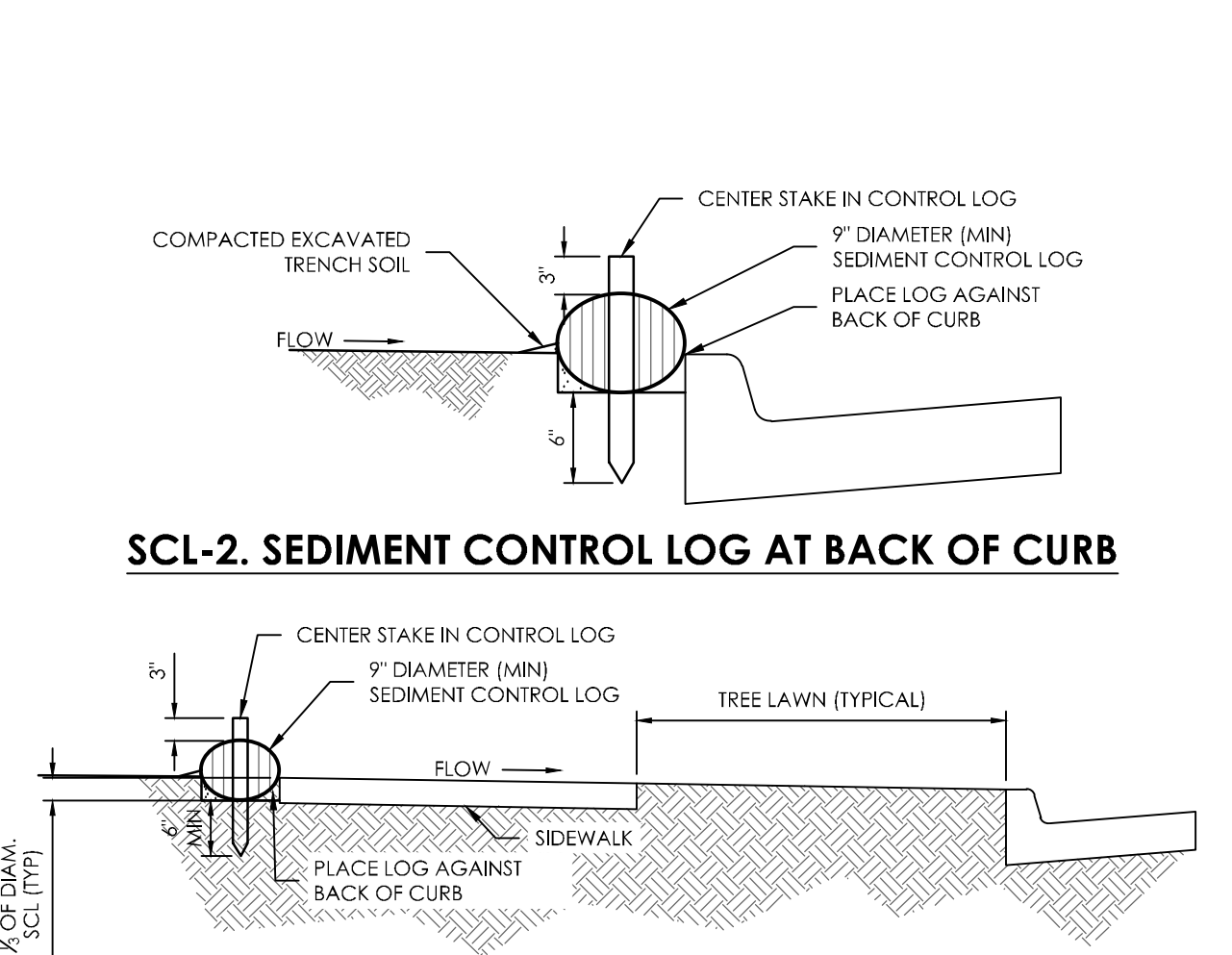
SEDIMENT CONTROL LOG INSTALLATION NOTES:  
1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.  
2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADE/ LAND-DISTURBING ACTIVITIES.  
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSDOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.  
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.  
5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING.  
6. THE UPRIIL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER.  
7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3' OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED.

MULCHING SPECIFICATIONS

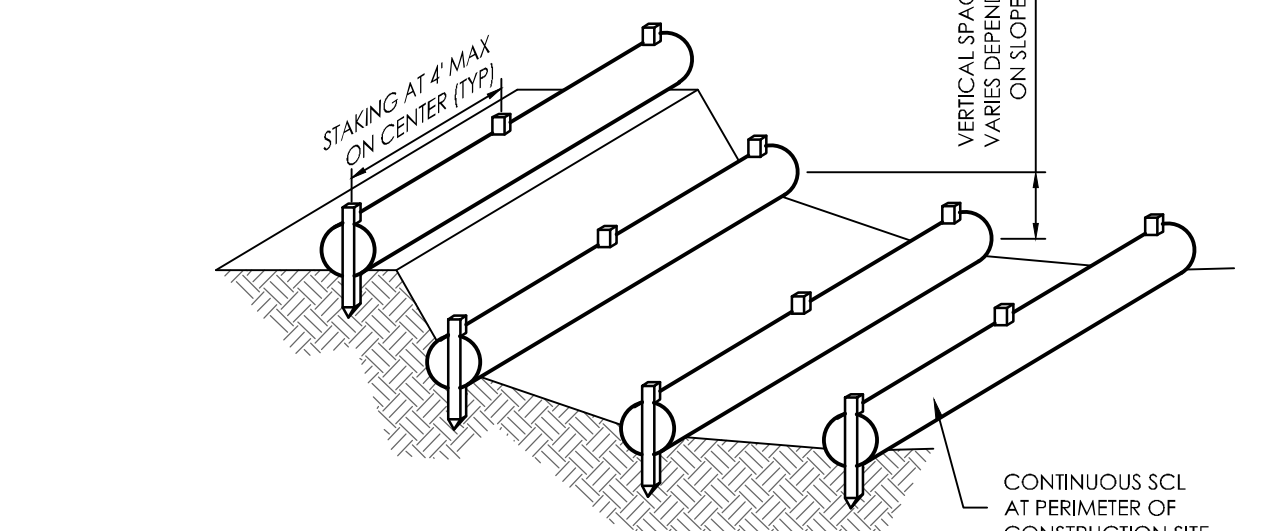
INSTALLATION REQUIREMENTS:  
1. ALL DISTURBED AREAS MUST BE MULCHED WITHIN 21 DAYS AFTER FINAL GRADE AND SEEDED AREAS ARE TO BE MULCHED WITHIN 24 HOURS AFTER SEEDING.  
2. MATERIALS USED FOR MULCH CAN BE CERTIFIED CLEAN, WEED- AND SEED- FREE LONG STEMMED FIELD OR WARMHAY, OR STRAW OF OATS, BARLEY, WHEAT, RYE, OR TRITICALE CERTIFIED BY THE COLORADO DEPARTMENT OF AGRICULTURE WEED FREE FORAGE CERTIFICATION PROGRAM.  
3. HYDRAULIC MULCHING MATERIAL SHALL CONSIST OF VIRGIN WOOD FIBER MANUFACTURED FROM CLEAN WHOLE WOOD CHIPS. WOOD CHIPS CANNOT CONTAIN ANY GROWTH OR GERMINATION INHIBITORS OR BE PRODUCED FROM RECYCLED MATERIAL. GRAVEL CAN ALSO BE USED.  
4. MULCH IS TO BE APPLIED EVENLY AT A RATE OF 2 TONS PER ACRE.  
5. MULCH IS TO BE ANCHORED EITHER BY CRIMPING (TUCKING MULCH FIBERS 4 INCHES INTO THE SOIL), USING NETTING (USED ON SMALL AREAS WITH STEEP SLOPES), OR WITH A TACKIFIER.  
6. HYDRAULIC MULCHING AND TACKIFIERS ARE NOT TO BE USED IN THE PRESENCE OF FREE SURFACE WATER.  
MAINTENANCE REQUIREMENTS:  
1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL MULCHED AREAS.  
2. MULCH IS TO BE REPLACED IMMEDIATELY IN THOSE AREAS IT HAS BEEN REMOVED, AND IF NECESSARY THE AREA SHOULD BE RESEEDED.

TEMPORARY SEEDING SPECIFICATIONS

INSTALLATION REQUIREMENTS:  
1. DISTURBED AREAS ARE TO BE SEEDED WITHIN 21 DAYS AFTER CONSTRUCTION ACTIVITY OR GRADING ENDS IF SEASON ALLOWS.  
2. IF NECESSARY, SOIL IS TO BE CONDITIONED FOR PLANT GROWTH BY APPLYING TOPSOIL, FERTILIZER, OR LIME.  
3. SOIL IS TO BE TILLED IMMEDIATELY PRIOR TO APPLYING SEEDS. COMPACT SOILS ESPECIALLY NEED TO BE LOOSENED.  
4. SEEDBED DEPTH IS TO BE 4 INCHES FOR SLOPES FLATTER THAN 2:1, AND 1 INCH FOR SLOPES STEEPER THAN 2:1.  
5. ANNUAL GRASSES LISTED IN TABLE TS-1 ARE TO BE USED FOR TEMPORARY SEEDING. SEED MIXES ARE NOT TO CONTAIN ANY NOXIOUS WEED SEEDS INCLUDING RUSSIAN OR CANADIAN THISTLE, KNAPWEED, PURPLE LOOSESTRIFE, EUROPEAN BINDWEED, JOHNSON GRASS, AND LEAFY SPURGE.  
6. TABLE TS-1 ALSO PROVIDES REQUIREMENTS FOR SEEDING RATES, SEEDING DATES, AND PLANTING DEPTHS FOR THE APPROVED TYPES OF ANNUAL GRASSES.  
7. SEEDING IS TO BE APPLIED USING MECHANICAL TYPE DRILLS EXCEPT WHERE SLOPES ARE STEEP OR ACCESS IS LIMITED THEN HYDRAULIC SEEDING MAY BE USED.  
8. ALL SEEDD AREAS ARE TO BE MULCHED (SEE FACTSHEET ON MULCHING).  
9. IF HYDRAULIC SEEDING IS USED THEN HYDRAULIC MULCHING SHALL BE DONE SEPARATELY TO AVOID SEEDS BECOMING ENCAPSULATED IN THE MULCH.



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



SCL-4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SEDIMENT CONTROL LOG MAINTENANCE NOTES:  
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 NECESSARY MAINTENANCE.  
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 UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.  
5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION, IF DISTURBED AREAS EXIST AFTER REMOVAL. THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

MAINTENANCE REQUIREMENTS:  
1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL SEEDD AREAS TO ENSURE GROWTH.  
2. AREAS WHERE THE GROWTH IS NOT OCCURRING QUICKLY OR THE MULCH HAS BEEN REMOVED SHALL BE RE-SEEDD AS SOON AS A POSSIBLE AND RE-MULCHED IF NEEDED.  
3. SEEDD AREAS ARE NOT TO BE DRIVEN OVER WITH CONSTRUCTION EQUIPMENT OR VEHICLES.

TABLE TS-1

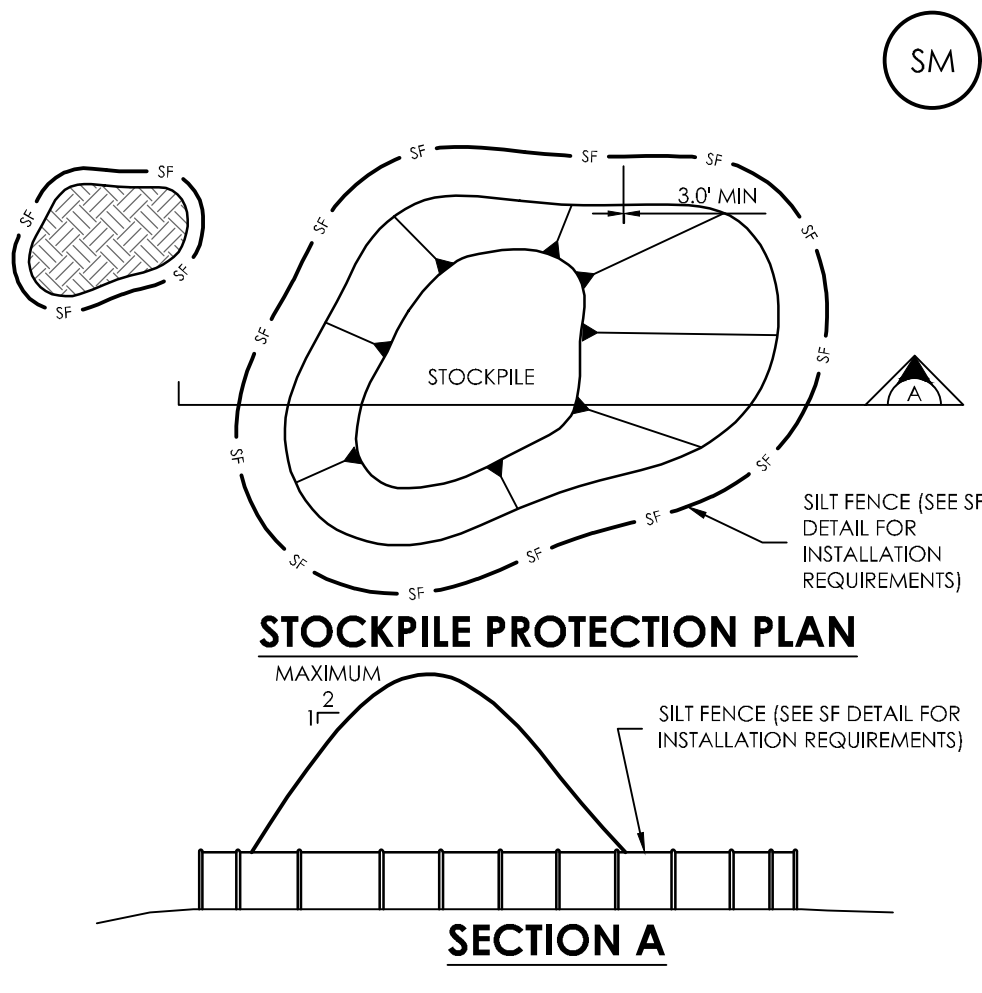
SPECIES* (COMMON NAME)	GROWTH SEASON**	POUNDS OF PURE LIVE SAND (PLS)/ACRE***	PLANTING DEPTH (INCHES)
1. OATS	COOL	35-50	1-2
2. SPRING WHEAT	COOL	25-35	1-2
3. SPRING BARLEY	COOL	25-35	1-2
4. ANNUAL RYEGRASS	COOL	10-15	1/2
5. MILLET	WARM	3-15	1/2 - 3/4
6. SUDANGRASS	WARM	5-10	1/2 - 3/4
7. SORGHUM	WARM	5-10	1/2 - 3/4
8. WINTER WHEAT	COOL	20-35	1-2
9. WINTER BARLEY	COOL	20-35	1-2
10. WINTER RYE	COOL	20-35	1-2
11. TRITICALE	COOL	25-40	1-2

\* SUCCESSFUL SEEDING OF ANNUAL GRASS RESULTING IN ADEQUATE PLANT GROWTH WILL USUALLY PRODUCE ENOUGH DEAD-PLANT RESIDUE TO PROVIDE PROTECTION FROM WIND AND WATER EROSION FOR AN ADDITIONAL YEAR. THIS ASSUMES THAT THE COVER IS NOT DISTURBED OR MOWED CLOSER THAN 8 INCHES.

HYDRAULIC SEEDING MAY BE SUBSTITUTED FOR DRILLING ONLY WHERE SLOPES ARE STEEPER THAN 3:1 OR WHERE ACCESS LIMITATIONS EXIST. WHEN HYDRAULIC SEEDING IS USED, HYDRAULIC MULCHING SHOULD BE APPLIED AS A SEPARATE OPERATION, WHEN PRACTICAL, TO PREVENT THE SEEDS FROM BEING ENCAPSULATED IN THE MULCH.

\*\* SEE TABLE TS-PS-3 FOR SEEDING DATES. IRRIGATION, IF CONSISTENTLY APPLIED, MAY EXTEND THE USE OF COOL SEASON SPECIES DURING THE SUMMER MONTHS.

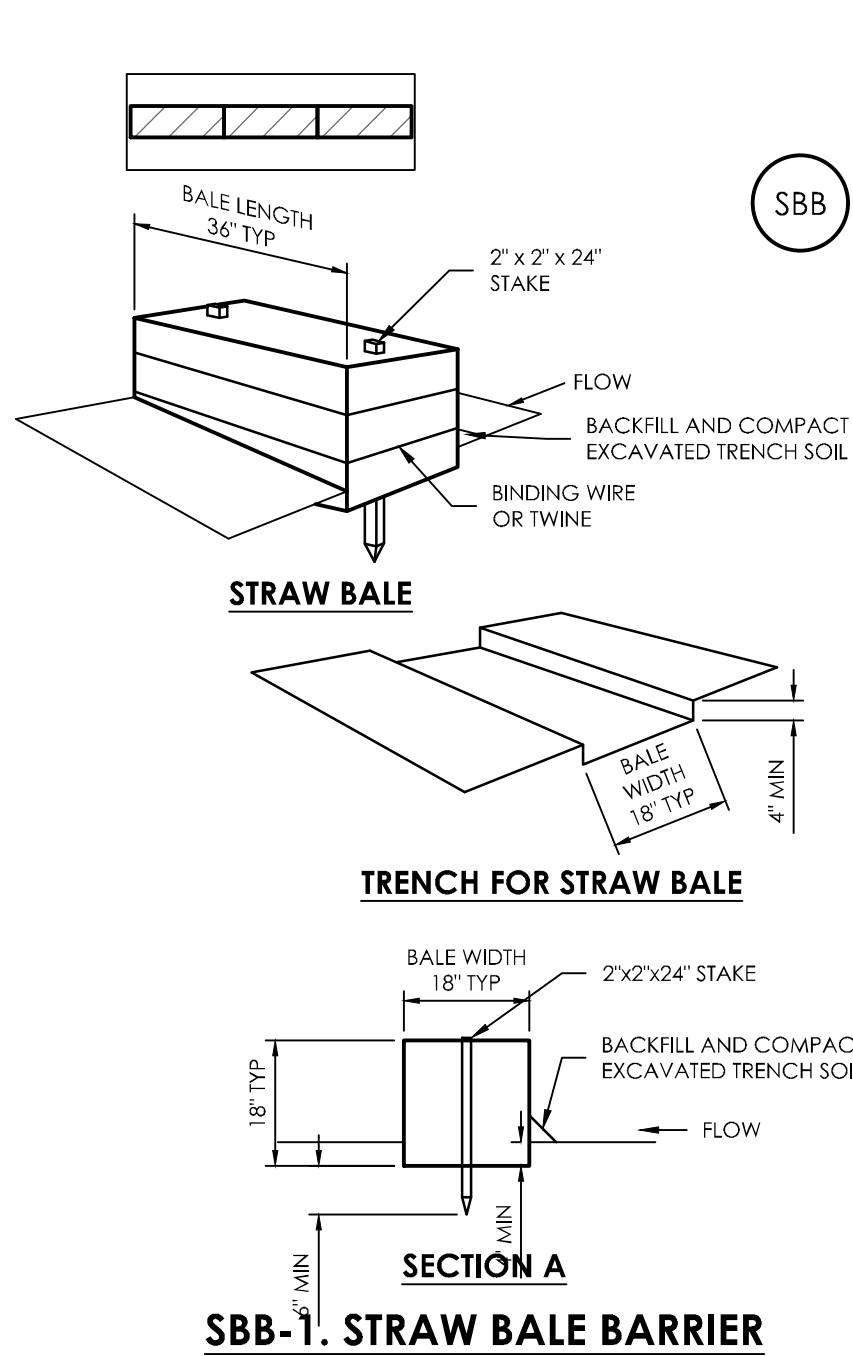
\*\*\* SEEDING RATES SHOULD BE DOUBLED IF SEED IS BROADCAST, OR INCREASED BY 50 PERCENT IF DONE USING A BRILLION DRILL OR BY HYDRAULIC SEEDING.



SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES:  
1. SEE PLAN VIEW FOR:  
—LOCATION OF STOCKPILES.  
—TYPE OF STOCKPILE PROTECTION.  
2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.  
3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDD AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).  
4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

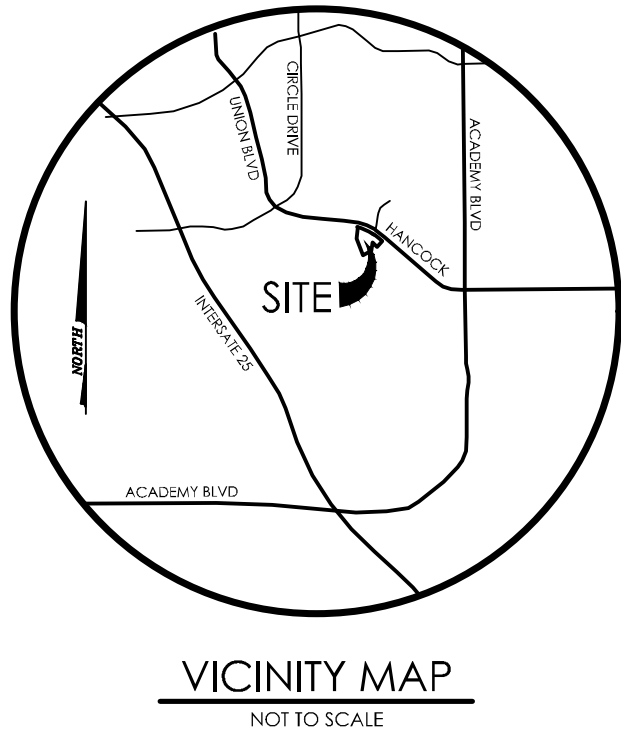
STOCKPILE PROTECTION MAINTENANCE NOTES:  
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY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



SBB-1. STRAW BALE BARRIER

STRAW BALE INSTALLATION NOTES:  
1. SEE PLAN VIEW FOR:  
—LOCATION(S) OF STRAW BALES.  
2. STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.  
3. STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.  
4. WHEN STRAW BALES ARE USED IN SERIES AS A BARRIER, THE END OF EACH BALE SHALL BE TIGHTLY ABUTTING ONE ANOTHER.  
5. STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".  
6. A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PLACED SO THAT BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALE(S). ALL EXCAVATED SOIL SHALL BE PLACED ON THE UPRIIL SIDE OF THE STRAW BALE(S) AND COMPACTED.  
7. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE 2"x2"x24". WOODEN STAKES SHALL BE DRIVEN 6" INTO THE GROUND.

STRAW BALE MAINTENANCE NOTES:  
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 NECESSARY MAINTENANCE.  
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. STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN, OR DAMAGED BEYOND REPAIR.  
5. SEDIMENT ACCUMULATED UPSTREAM OF STRAW BALE BARRIER SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE STRAW BALE BARRIER.  
6. STRAW BALES ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.  
7. WHEN STRAW BALES ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDD AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.



BENCHMARK

Colorado Licensed Professional Engineer  
31672  
3/18/19  
MVE, INC.  
ENGINEERS & SURVEYORS  
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DESIGNED BY  
DRAWN BY  
CHECKED BY  
AS-BUILT BY  
CHECKED BY

2515 LARAMIE DR  
OFFICE/WAREHOUSE

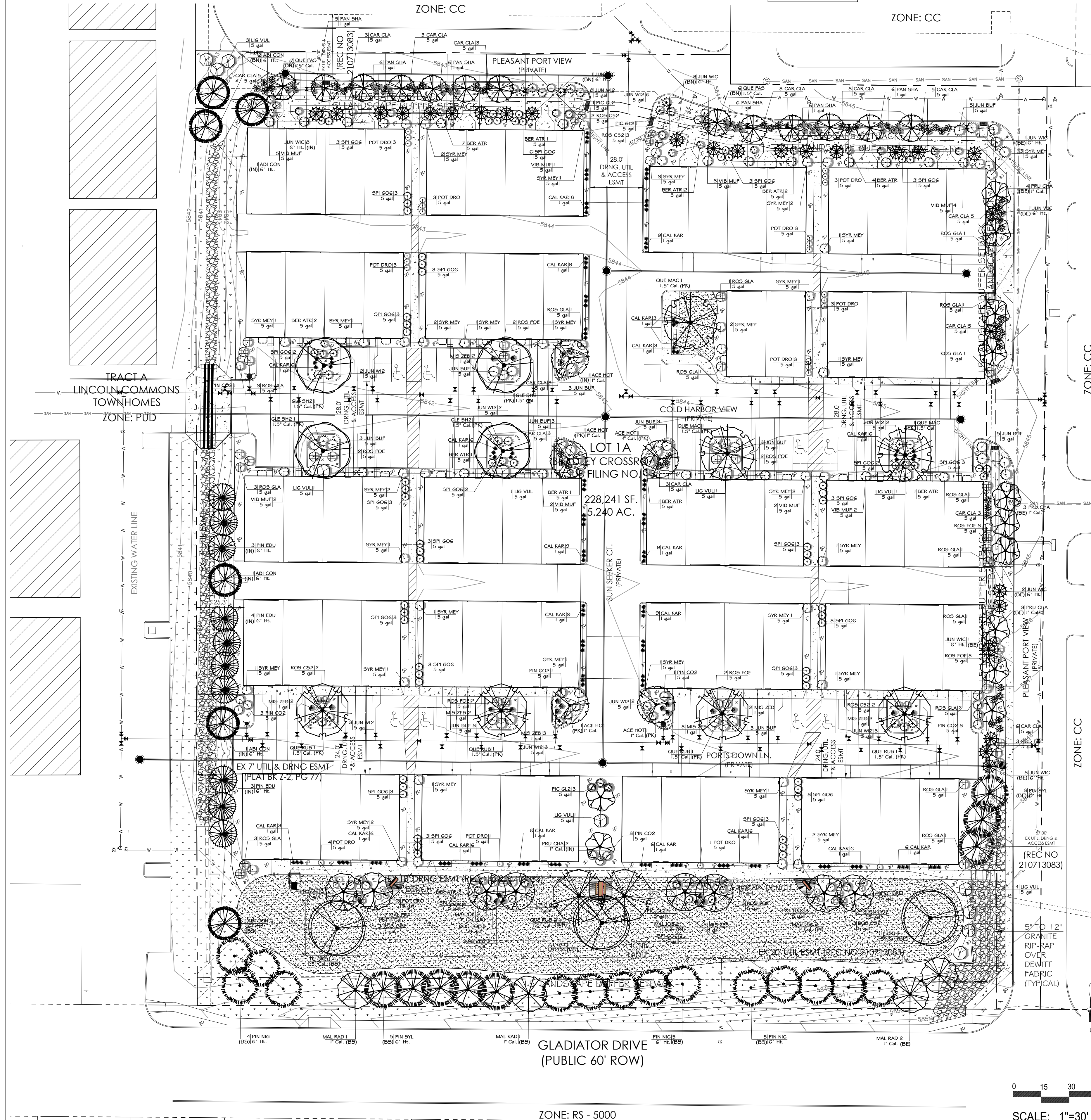
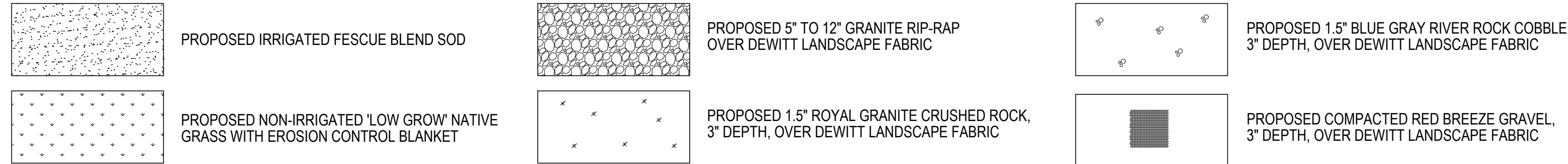
C1.7  
GRADING, EROSION,  
STORMWATER QUALITY  
CONTROL PLAN  
EROSION DETAILS 2

MVE PROJECT  
MVE DRAWING  
51367  
GESC-ED2

OCTOBER 22, 2018  
SHEET 7 OF 7



PROPOSED GROUND PLANE TREATMENT



SITE CATEGORY CALCULATIONS:

Landscape Setbacks						
Street Name or Boundary	Street Classification	Width (in Ft.) Req./Prov.	Linear Footage	Tree/Foot Required	No. of Trees Req./Prov.	Setback Plant Abbr. Denoted on Plan
Pleasant Port View (north)	Private collector	10' / 15'	471'	1 / 30'	16 / 24	(see Buffer & Screens requirements)
Pleasant Port View (east)	Private collector	10' / 15'	483'	1 / 30'	16 / 25	(see Buffer & Screens requirements)
Gladiator Drive	Non arterial	10' / 15'	451'	1 / 30'	15 / 23	(see Buffer & Screens requirements)

Parking				
No. of Vehicles Spaces Provided	Shade Trees Required/Provided	Abbr. on Plan	Vehicle Lot Frontages	Length of Frontage (excluding driveways)
221	15 / 15	(PK)	Pleasant Port View	36'
				24'

Min. 3' Screening Plants Req. / Prov.	Evergreen Plants Req. (50%) / Prov.	Length of Screening Wall or Berm Provided	Vehicle Lot Plant Abbr. on Plan	Percent Ground Plane Veg. Req. / Prov.
6 / 6	3 / 3	-	(PS)	75% / 75%

Internal Landscaping			
Net Site Area (SF) (less public ROW)	Percent Minimum Internal Area (%)	Internal Area (SF) Required/Provided	Internal Trees (1/500 SF) Required/Provided
228,241 s.f.	15%	34,236 s.f. / 65,320 s.f.	68 / 34

Shrub Substitutes Required/Provided	Internal Plant Abbr. Denoted on Plan
340 / 340	(IN)

Landscape Buffer & Screens			
Street Name or Property Line	Width (in Ft.) Req. / Prov.	Linear Footage	Buffer Trees (1/20') Required / Provided
North Boundary	15' / 15'	471'	24 / 24
East Boundary	15' / 15'	493'	25 / 25
South Boundary	15' / 15'	451'	23 / 23

Length of 6 Ft. Opaque Structure Req. / Prov.	Buffer Tree Abbr. Denoted on Plan	Percent Ground Plane Veg. Req. / Prov.
0' / 0'	(BN)	75% / 75%
0' / 0'	(BE)	75% / 75%
0' / 0'	(BS)	75% / 75%

PLANT SCHEDULE

PLANT SCHEDULE					
TRIFES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE NOTES
	ABI CON	6	Abies concolor	White Fir	6" Ht. B # B
	ACE HOT	5	Acer tatanum 'Hot Wings'	Hot Wings Tatanan Maple	1" Cal. B # B
	GLE SH2	4	Gleditsia tniacanthos inermis 'Shademaster' TM	Shademaster Locust	1.5" Cal. B # B
	JUN WIC	26	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper	6" Ht.
	MAL IOC	4	Malus ioensis 'Flena'	Bechtel Crab Apple	1" Cal. B # B
	MAL PRA	4	Malus x 'Praefire'	Praefire Crab Apple	1" Cal. B # B
	MAL RAD	4	Malus x 'Radiant'	Radiant Crab Apple	1" Cal. B # B
	PIN EDU	10	Pinus cembroides edulis	Pinyon Pine	6" Ht. B # B
	PIN NIG	14	Pinus nigra	Austrian Black Pine	6" Ht. B # B
	PIN SYL	8	Pinus sylvestris	Scotch Pine	6" Ht. B # B
	PRU CHA	12	Pyrus calleryana 'Chanticleer'	Chanticleer Pear	1" Cal. B # B
	QUE MAC	3	Quercus macrocarpa	Burr Oak	1.5" Cal. B # B
	QUE FAS	13	Quercus robur 'Fastigata'	Fastigate English Oak	1.5" Cal. B # B
	QUE RUB	6	Quercus rubra	Northern Red Oak	1.5" Cal. B # B
	TIL GRE	3	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	1.5" Cal. B # B
SHRUBS					
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
BER ATR	26	Berberis thunbergii 'Atropurpurea'	Red Leaf Japanese Barberry	5 gal	
CAR CLA	53	Caryopteris x clandonensis 'Blue Mist'	Blue Mist Spirea	5 gal	
JUN W12	31	Juniperus horizontalis 'Wiltoni'	Wilton Carpet Juniper	5 gal	
JUN BUF	34	Juniperus sabina 'Buffalo'	Buffalo Juniper	5 gal	
LIG VUL	13	Ligustrum vulgare 'Cheyenne'	Cheyenne Privet	5 gal	
PIC GL2	7	Picea pungens glauca 'Globosa'	Globed Colorado Blue Spruce	5 gal	
PIN CO2	16	Pinus mugo 'Compacta'	Dwarf Mugo Pine	5 gal	
POT DRO	37	Potentilla fruticosa 'Gold Drop'	Gold Drop Potentilla	5 gal	
ROS FOE	25	Rosa foetida bicolor	Austrian Copper Rose	5 gal	
ROS GLA	22	Rosa glauca	Radleaf Rose	5 gal	
ROS CS2	15	Rosa x 'Carefree Delight'	Carefree Delight Rose	5 gal	
SPI GOG	73	Spiraea japonica 'Goldflame'	Goldflame Spirea	5 gal	
SYR MEY	41	Syringa meyeri 'Palibin'	Dwarf Korean Lilac	5 gal	
VIB MUF	21	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	5 gal	
GRASSES					
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
CAL KAR	132	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	1 gal	
MIS ZEB	22	Miscanthus sinensis 'Zebinus'	Zebra Grass	1 gal	
PAN SHA	35	Panicum virgatum 'Shenandoah'	Burgundy Switch Grass	1 gal	

**JWLA**  
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PROJECT FILE: bradley townhomes flp 02-08-19.dwg

DEVELOPMENT PLAN FOR  
**TOWNHOMES AT BRADLEY CROSSROADS**  
4735 Bradley Road, Colorado Springs, CO  
El Paso County, CO

PROJECT NAME:

FINAL LANDSCAPE PLAN

SHEET TITLE:

DATE: 11 February 2019

REVISION NO.

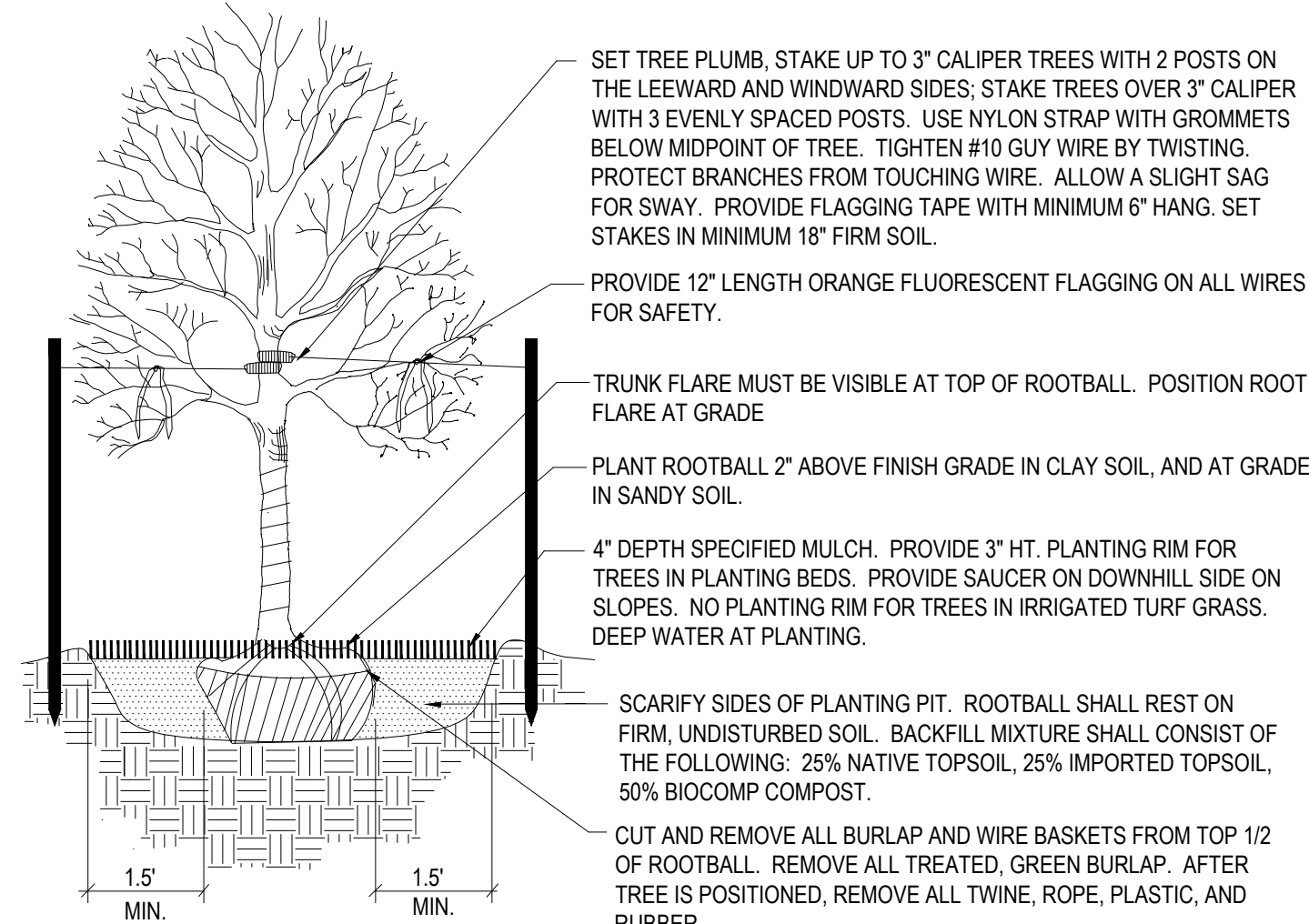
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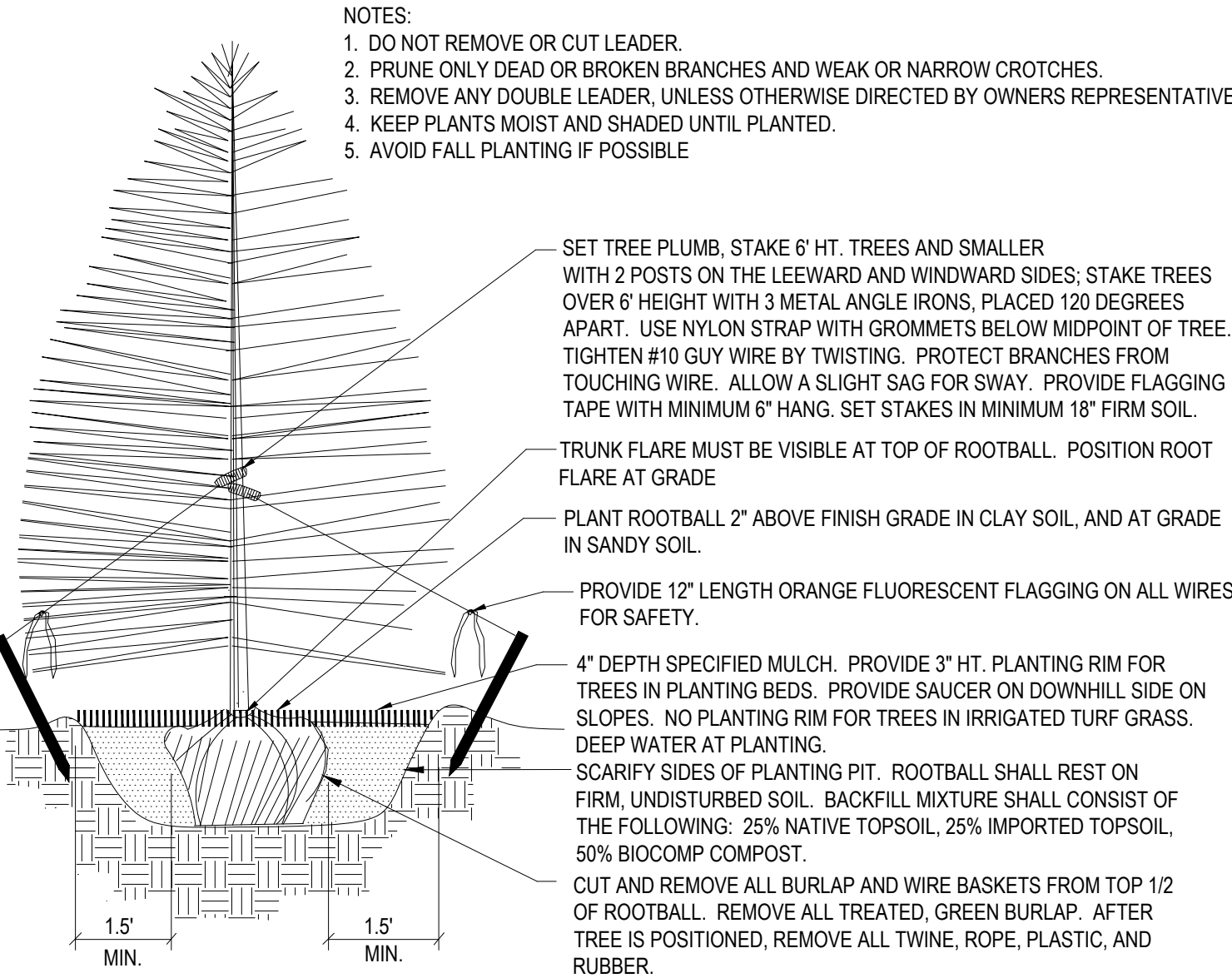
PLANTING DETAILS

- NOTES:
- DO NOT REMOVE OR CUT LEADER.
  - PRUNE ONLY DEAD OR BROKEN BRANCHES AND WEAK OR NARROW CROTCHES.
  - DO NOT REMOVE LOWER LIMBS AND SPROUTS FOR AT LEAST TWO GROWING SEASONS.
  - KEEP PLANTS MOIST AND SHADED UNTIL PLANTED.
  - DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
  - WRAP TRUNK ON EXPOSED SITES OR SPECIES WITH THIN BARK. USE ELECTRICAL TAPE NOT TWINE. WRAP OCTOBER 15 AND REMOVE BY MARCH 31.



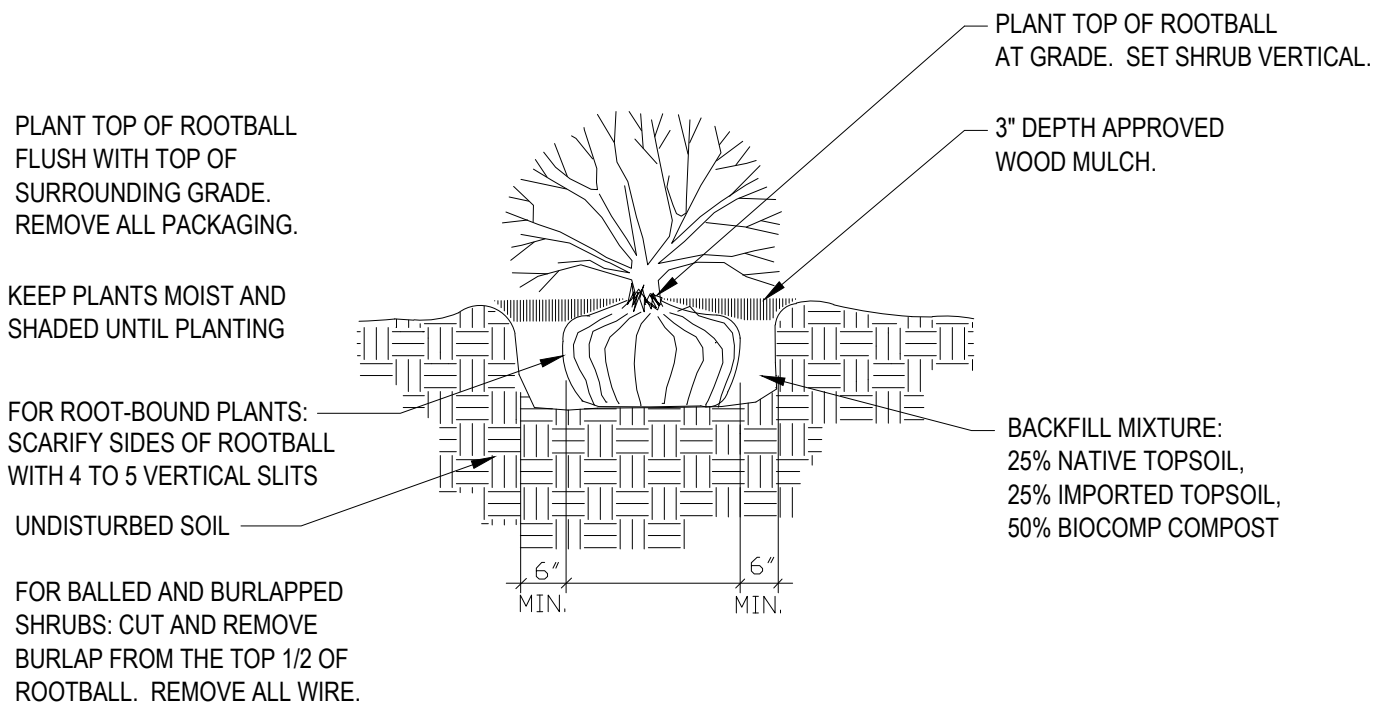
Deciduous Tree Planting Detail

NOT TO SCALE



Coniferous Tree Planting Detail

NOT TO SCALE



Shrub Planting Detail

SCALE: NOT TO SCALE

Rock Cover / Mulch Bed Excavation

SCALE: NOT TO SCALE

PROJECT DATA

PROPERTY SIZE:	228,241 s.f. total
BUILDING AREA:	38,640 s.f.
PAVEMENT AREA:	124,281 s.f.
LANDSCAPE AREA:	65,320 s.f.
TOTAL PARKING SPACES:	221 spaces
RESIDENTIAL UNITS:	78 units total

NATIVE SEED ESTABLISHMENT

**INITIAL PLANTING**  
STOCKPILED TOPSOIL SHOULD BE SPREAD EVENLY OVER ALL AREAS TO RECEIVE NATIVE SEED. SEED BED IS TO BE WEED-FREE. SPECIFIED SOIL AMENDMENTS SHOULD BE SPREAD AND INCORPORATED INTO TOP 6" OF SOIL. SEED BED IS TO BE RAKED SMOOTH AND FREE OF DEBRIS LARGER THAN 1" IN DIAMETER. ANY AREAS THAT THE CONTRACTOR BELIEVES TO BE SUSCEPTIBLE TO EROSION ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND/OR GENERAL CONTRACTOR PRIOR TO SEEDING. THE SPECIFIED SEED MIX IS TO BE APPLIED BY HYDRO-MULCH SEEDING AT THE RATE SPECIFIED. SEED IS TO BE APPLIED BETWEEN APRIL 15 AND SEPTEMBER 15. SEED SHALL NOT BE SOWN IF GROUND IS IN A FROZEN STATE. SPECIFIED EROSION CONTROL BLANKET IS TO BE INSTALLED IMMEDIATELY AFTER SEEDING. BLANKET SHALL BE LAID AND SECURED WITH 6" METAL STAPLES AS PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR IS TO PROVIDE INCIDENTAL WATERING OF ALL SEEDED AREAS THREE TIMES A WEEK DURING GROWING SEASON FOR A MINIMUM OF 8 WEEKS, OR UNTIL ESTABLISHED AND MEETING COVERAGE REQUIREMENTS. MOWING MAY BE NECESSARY DURING THE FIRST GROWING SEASON TO KEEP INVASIVE WEEDS FROM SETTING SEEDS. CONTRACTOR IS RESPONSIBLE FOR KEEPING BROADLEAF WEEDS UNDER CONTROL FOR 12 MONTHS AFTER INITIAL SEEDING AND IS ALSO RESPONSIBLE FOR OVER SEEDING BARE AREAS UNTIL SPECIFIED NATIVE GRASSES COVER ALL AREAS AND AREAS WITHOUT SPECIFIED NATIVE GRASS DO NOT EXCEED 6" X 6".

**OVER SEEDING**  
SIX WEEKS AFTER THE INITIAL SEEDING DURING THE FIRST GROWING SEASON AND/OR DURING THE SPRING OF THE SECOND GROWING SEASON CONTRACTOR IS TO REPAIR ANY ERODED AREAS AND OVER SEED ALL BARE NATIVE GRASS AREAS. CONTRACTOR IS TO USE SPECIFIED SEED MIX BY BROADCAST AND RAKING INTO TOP 1/2" TO 1/2" OF SOIL. INCIDENTAL WATERING IS TO BE PROVIDED TO ESTABLISH OVER-SEEDED AREAS. BROADLEAF WEEDS ARE TO BE KEPT UNDER CONTROL BY MANUALLY PULLING OR CUTTING WEEDS OR SPRAYING OF BROADLEAF WEED HERBICIDE. HERBICIDE AND APPLICATION SHALL CONFORM TO ALL APPLICABLE LAWS OF THE STATE OF COLORADO AND MANUFACTURERS INSTRUCTIONS.

GENERAL NOTES

- ALL REFERENCES TO 'CONTRACTOR' REFER TO LANDSCAPE CONTRACTOR, UNLESS OTHERWISE NOTED.
- CONTRACTOR IS RESPONSIBLE FOR GETTING ALL UTILITY LOCATES 1-800-922-1987 PRIOR TO STARTING ANY WORK ON SITE AND ALSO HAVING UTILITIES RELOCATED AS NECESSARY FOR THE DURATION OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL LANDSCAPE SHOWN ON THIS PLAN. ANY DEFICIENCIES OR DEVIATIONS FROM THIS PLAN ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. ANY CHANGES FROM THE APPROVED PLANS MAY REQUIRE APPROVAL FROM THE EL PASO COUNTY PLANNING DEPARTMENT AND MAY DELAY COMPLETION OF PROJECT.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF MATERIALS NEEDED TO COMPLETE THIS PLAN IN THE FIELD. NOTIFY OWNER'S REPRESENTATIVE OF DISCREPANCIES BETWEEN THE DRAWINGS AND CONDITIONS IN THE FIELD. SUBSTITUTIONS OF LANDSCAPE MATERIALS ARE NOT ALLOWED WITHOUT APPROVAL FROM LANDSCAPE ARCHITECT GIVEN PRIOR TO INSTALLATION. NOTIFY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION IF LANDSCAPE MATERIAL LOCATIONS NEED TO BE ALTERED DUE TO ON-SITE CONDITIONS.
- CONTRACTOR IS TO PROVIDE A ONE YEAR WARRANTY ON ALL PLANT MATERIALS, SOD, IRRIGATION COMPONENTS, NATIVE GRASS, AND WORKMANSHIP. CONTRACTOR IS TO PROVIDE OWNER WITH WARRANTY CONDITIONS AND COMMENCE WARRANTY PERIOD UPON FINAL ACCEPTANCE OF LANDSCAPE INSTALLATION.
- CONTRACTOR SHALL REFER TO ASSOCIATED LANDSCAPE CONTRACTORS OF COLORADO SPECIFICATIONS HANDBOOK, 1996 (OR MORE RECENT) REVISED EDITION FOR SPECIFICATIONS RELATING TO LANDSCAPE AND IRRIGATION CONSTRUCTION ON THIS SITE. REFER TO SECTIONS 02810, 02930, 02940, AND 02950. CONTRACTOR SHOULD CONTACT OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT FOR CLARIFICATIONS OR QUESTIONS.
- THE OWNER OF THIS PROPERTY AND ANY FUTURE OWNERS SHALL BE RESPONSIBLE FOR THE PROPER LANDSCAPE AND IRRIGATION MAINTENANCE OF THIS SITE. MAINTENANCE OF THIS SITE INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION INSPECTIONS AND ADJUSTMENTS, IRRIGATION SYSTEM SHUT DOWN AND START UP, IRRIGATION LEAK REPAIR, LANDSCAPE WEEDING, MOWING, SEEDING, FERTILIZATION, WOOD MULCH AND ROCK COVER REPLACEMENT, PRUNING, AND PLANT MATERIAL REPLACEMENT. ALL MAINTENANCE SHOULD BE IN ACCORDANCE WITH STANDARDS SPECIFIED WITHIN THE "ALCC SPECIFICATIONS HANDBOOK" REVISED EDITION- 1996. OWNER SHOULD CONTACT LANDSCAPE CONTRACTOR OR LANDSCAPE ARCHITECT REGARDING ANY QUESTIONS RELATING TO THE LANDSCAPE OR IRRIGATION MAINTENANCE OF THIS SITE.

PROJECT NOTES

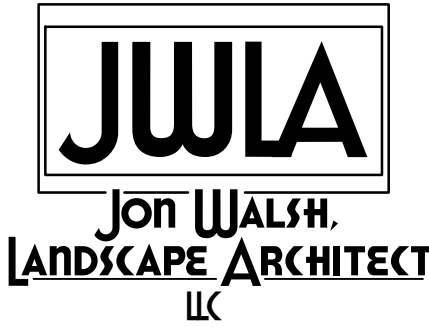
- ALL EXISTING TREES, WHICH CONSIST OF VOLUNTEER SIBERIAN ELMS, ON THE PROJECT SITE ARE TO BE REMOVED.
- FINE GRADING TO BE PERFORMED BY LANDSCAPE CONTRACTOR TO REFLECT FINISHED GRADES SHOWN ON THE PROJECT GRADING PLANS. ALL FINISHED GRADES ARE TO HAVE A MINIMUM 2% SLOPE. CONTRACTOR IS TO REPORT POOR DRAINAGE CONDITIONS OR ANY GRADES IN LANDSCAPE AREAS LESS THAN 2% TO GENERAL CONTRACTOR AND LANDSCAPE ARCHITECT PRIOR TO LANDSCAPE CONSTRUCTION WORK. FINISHED GRADES SHALL BE FREE OF WEEDS AND FREE OF DEBRIS AND ROCKS GREATER THAN ONE INCH.
- CONTRACTOR IS TO PROVIDE FINAL GRADES ADJACENT TO HARDSCAPE SURFACES AT THE FOLLOWING SPECIFICATIONS:  
2" BELOW TOP OF CONCRETE OR RETAINING WALLS FOR ALL MULCH AND ROCK COVER BEDS.  
1" BELOW TOP OF CONCRETE OR RETAINING WALLS FOR IRRIGATED TURF AND NATIVE SEED AREAS.  
CONTRACTOR IS TO COORDINATE THESE GRADING SPECIFICATIONS WITH GENERAL CONTRACTOR AND/OR WHOEVER IS PROVIDING ROUGH GRADING. FINAL GRADES IN ALL LANDSCAPE AREAS ARE TO BE ESTABLISHED USING ON-SITE STOCKPILED TOPSOIL.
- ALL AREAS SHOWN AS 'NON-IRRIGATED NATIVE SEED' TO BE SEEDED WITH 'LOW GROW NATIVE SEED MIX' (PAWNEE BUTTE SEED, INC.) BY DRILL SEEDING AND HYDRO-MULCH SEEDING AT A RATE OF 2 LBS. PER 1,000 SQ. FT. REFER TO NATIVE SEED ESTABLISHMENT SPECIFICATION FOR MORE DETAILED INSTRUCTIONS. ALL SEEDED AREAS TO RECEIVE EROSION CONTROL BLANKET- 'R1 EXCEL' WESTERN EXCELSIOR PHOTO-DEGRADABLE EROSION CONTROL BLANKET. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- ROCK COVER AREAS TO CONSIST OF 1.5" DIAMETER 'ROYAL GRANITE' CRUSHED ROCK (C&C SAND), SPREAD 3" DEPTH OVER LANDSCAPE FABRIC AND 1.5" DIAMETER BLUE GRAY RIVER ROCK COBBLE. 3" DEPTH OVER LANDSCAPE FABRIC. RIP-RAP AREAS TO RECEIVE 6" TO 12" DIAMETER OF 'CIMARRON' (C&C SAND) ROCK OVER LANDSCAPE FABRIC. RED BREEZE GRAVEL IS TO BE PROVIDED AT BENCH AND PICNIC TABLE AREAS, 3" COMPACTED DEPTH OVER LANDSCAPE FABRIC. REFER TO PLAN FOR LOCATIONS OF EACH TYPE OF ROCK. LANDSCAPE FABRIC TO CONSIST OF 'DEWITT' WEED BARRIER PRO, 3 OZ BLACK WOVEN POLYPROPYLENE FABRIC. FABRIC TO OVERLAP 6" MINIMUM AT ALL SEAMS. 6" STEEL ANCHOR PINS TO BE INSTALLED 6" O.C. MAX.
- PROPOSED SOD IS TO CONSIST OF A FESCUE BLEND. SOD IS TO HAVE LOW CLAY CONTENT. SOD BED IS TO BE RAKED SMOOTH AND FREE OF DEBRIS AND ROCKS GREATER THAN ONE HALF INCH. SOD IS TO BE LAID WITH TIGHT STAGGERED EDGES AND BE ROLLED AFTER INSTALLATION.
- ALL PROPOSED PLANTING BEDS ARE TO BE ROTO-TILLED TO A 6" DEPTH. PLANTING BEDS ARE TO BE RAKED SMOOTH AND FINISHED GRADES ARE TO BE ESTABLISHED AND VERIFIED TO THE TOLERANCES LISTED ABOVE PRIOR TO PLANTING. PARKING LOT ISLANDS WHERE TREES ARE PROPOSED ARE TO BE EXCAVATED TO A 30" DEPTH, 8" DIAMETER AT PROPOSED TREE LOCATIONS AND HALF OF EXCAVATED SOIL IS TO BE MIXED WITH IMPORTED TOPSOIL AND REPLACED INTO ISLANDS.
- AFTER PLANTING, BUT BEFORE LANDSCAPE FABRIC IS INSTALLED, ALL PLANTING BEDS ARE TO RECEIVE A GRANULAR PRE-EMERGENT HERBICIDE (PREEN OR SNAPSHOT). APPLY PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR IS TO SPRAY ALL PLANTING BEDS WITH WATER IMMEDIATELY AFTER MULCH IS INSTALLED TO REMOVE PRE-EMERGENT FROM FOLIAGE AND ACTIVATE HERBICIDE.
- GORILLA HAIR WOOD MULCH IS TO BE PROVIDED AROUND ALL THE BASE OF ALL TREES, 4" DIAMETER, 3" DEPTH. NO LANDSCAPE FABRIC TO BE INSTALLED BENEATH MULCH.
- STEEL EDGING IS TO CONSIST OF 16 GAUGE PERFORATED GALVANIZED ROLLED-TOP STEEL EDGING. EDGING IS TO BE USED TO SEPARATE TURF, NATIVE GRASS, AND ROCK COVER AREAS, UNLESS OTHERWISE NOTED ON PLAN. EDGING IS TO BE PARTIALLY BURIED SO THAT HALF OF EDGING HEIGHT IS BELOW FINISHED SOIL GRADE. 12" STEEL EDGING PINS TO BE INSTALLED EVERY 4' O.C. MAX. ENDS OF STEEL EDGING TO OVERLAP 6" MINIMUM WITH AND HAVE TWO PINS SECURING OVERLAPPED ENDS.

SOIL PREPARATION NOTES

- PROPOSED BLUEGRASS SOD AREAS:** ALL SODDED AREAS TO RECEIVE 4 CU. YDS. PER 1,000 SQ. FT. OF 'BIOCOMP' SOIL AMENDMENTS (C&C SAND) INCORPORATED INTO EXISTING SOIL AND ROTO-TILLED TO A 6" DEPTH.
- PROPOSED NATIVE GRASS AREAS:** ALL SEEDED AREAS TO RECEIVE 2 CU. YDS. PER 1,000 SQ. FT. OF 'BIOCOMP' SOIL AMENDMENTS (C&C SAND) INCORPORATED INTO EXISTING SOIL AND ROTO-TILLED TO A 6" DEPTH.
- PROPOSED TREES AND SHRUBS:** ALL PROPOSED TREES ARE TO BE BACKFILLED WITH A MIXTURE OF 'BIOCOMP' SOIL AMENDMENT AND IMPORTED GRADE A TOPSOIL (C&C SAND). REFER TO PLANTING DETAILS.

IRRIGATION NOTES

- ALL PROPOSED TREES AND SHRUBS ARE TO BE WATERED BY A PROPOSED DRIP IRRIGATION SYSTEM. IRRIGATION SYSTEM SHALL INCLUDE AUTOMATIC CONTROLLER, RAIN SENSOR, BACKFLOW PREVENTER (INSTALLED PER LOCAL CODES), AND TWO QUICK COUPLERS EVENLY SPACED ALONG MAINLINE. TREES TO HAVE (4) 1 GPH EMITTERS EACH EVENLY SPACED AT EDGE OF ROOT BALL, SHRUBS / ORNAMENTAL GRASSES TO HAVE (2) 1 GPH EMITTERS EACH EVENLY SPACED AT EDGE OF ROOT BALL. ALL DRIP PIPE SHALL BE SECURED WITH 6" METAL STAKES AND BURIED.
- ALL FESCUE SOD AREAS TO BE IRRIGATED WITH POP-UP SPRAY HEADS AND/OR ROTARY HEADS. IRRIGATION HEADS TO BE SPACED FOR HEAD TO HEAD COVERAGE.
- ALL DISTURBED NATIVE SEED AREAS TO RECEIVE TEMPORARY IRRIGATION UNTIL NATIVE GRASS IS ESTABLISHED. REFER TO NATIVE SEED ESTABLISHMENT NOTES. HOSES ARE TO BE CONNECTED TO BUILDING HOSE BIBS AND IRRIGATION QUICK COUPLERS TO MANUALLY WATER PROPOSED NATIVE SEED AREAS WITH PORTABLE SPRINKLERS UNTIL ESTABLISHED. TEMPORARY SPRAY IRRIGATION ZONES CAN BE CREATED TO IRRIGATE NATIVE SEED AREAS UNTIL ESTABLISHED.



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jwlandarch@gmail.com

PROJECT FILE  
3u bradley townhomes flp 02-08-19.dwg

DEVELOPMENT PLAN FOR  
**TOWNHOMES AT BRADLEY CROSSROADS**  
4735 Bradley Road, Colorado Springs, CO  
El Paso County, CO

PROJECT NAME:

FINAL  
LANDSCAPE  
PLAN

SHEET TITLE:

DATE: 11 February 2019

REVISION NO.

STAMP:

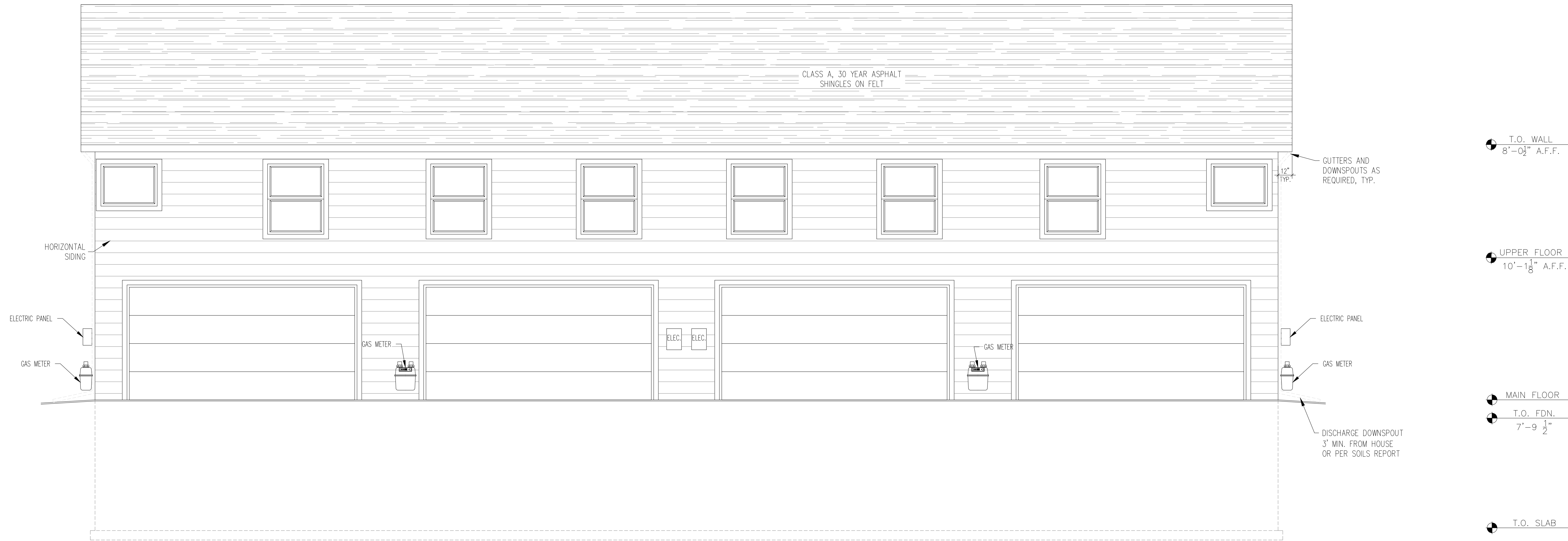
SHEET NO.

L2





FRONT VIEW



REAR VIEW

T.O. WALL  
8'-0 1/2" A.F.F.

UPPER FLOOR  
10'-1 1/8" A.F.F.

MAIN FLOOR  
T.O. FDN.  
7'-9 1/2"

T.O. SLAB

T.O. WALL  
8'-0 1/2" A.F.F.

UPPER FLOOR  
10'-1 1/8" A.F.F.

MAIN FLOOR  
T.O. FDN.  
7'-9 1/2"

T.O. SLAB

NO: REVISIONS

JAC  
Drafting Services

719-498-8214  
J.E. Drott

ELEVATION VIEWS  
FOR  
MASTER PLAN

DATE: 3/19/18

SCALE: AS SHOWN

JOB NO.: 1000

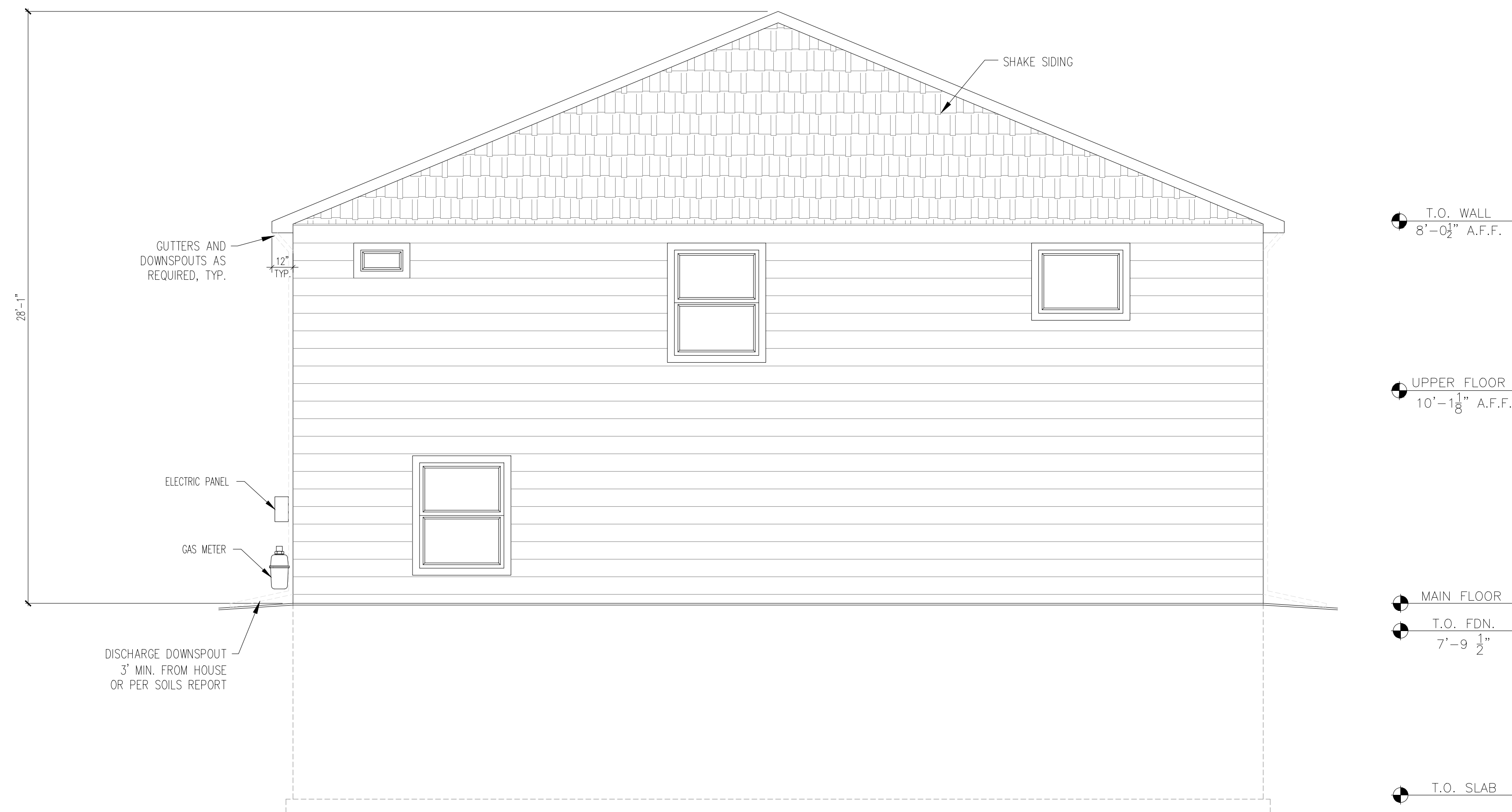
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LEFT VIEW



RIGHT VIEW

NO: REVISIONS

JAC  
Drafting Services

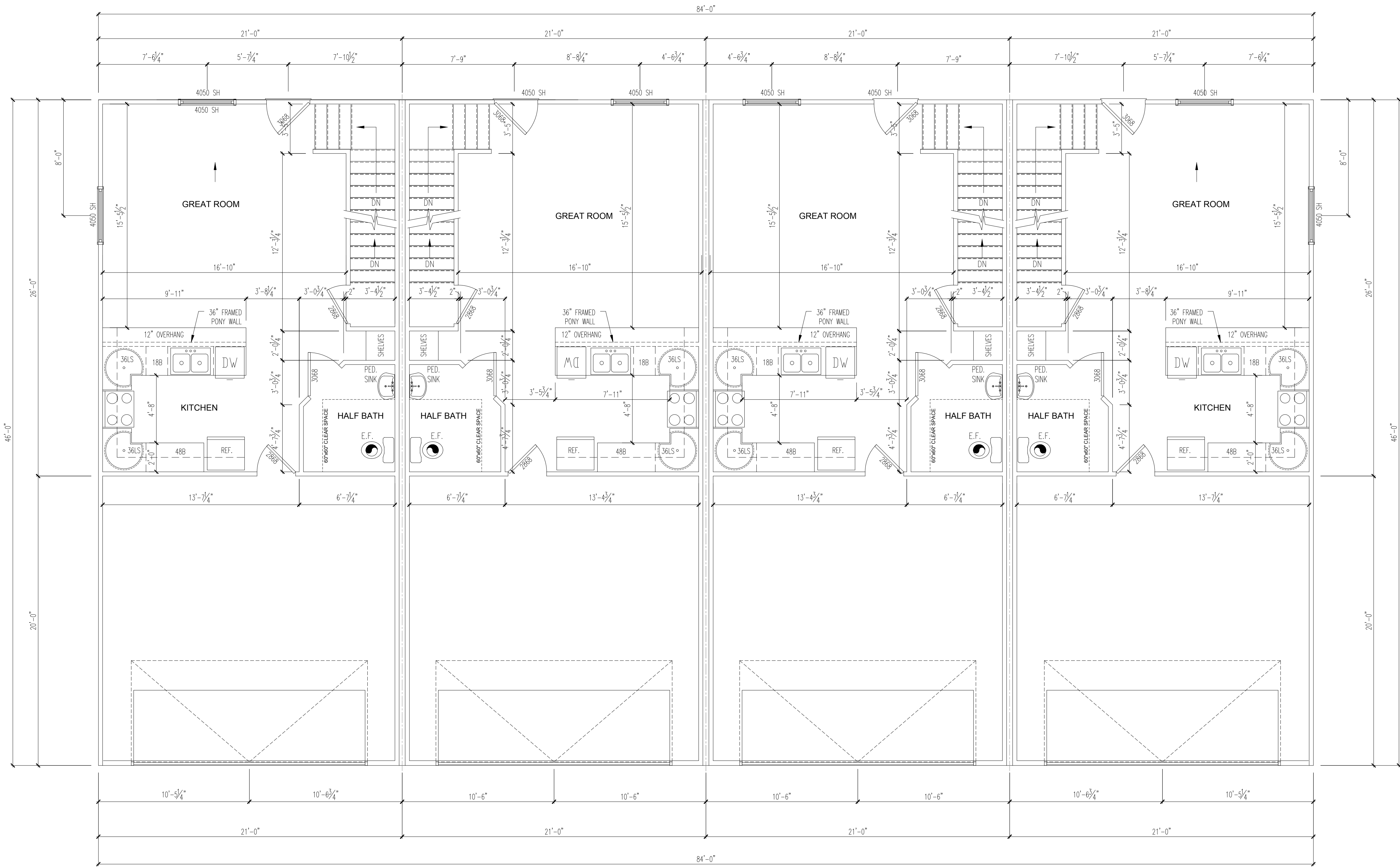
12218 Crystal Downs Rd.  
719-498-8214  
J.E. Drott

ELEVATION VIEWS  
FOR  
MASTER PLAN

DATE: 3/19/18  
SCALE: AS SHOWN  
JOB NO.: 1000  
SHEET:

A 2.0





SQUARE FOOTAGE(BASEMENT MODEL)

MAIN FLOOR: 541  
UPPER FLOOR: 960

TOTAL LIVING: 1990

U/F BSMT: 489

2 CAR GARAGE: 416

MAIN LEVEL

NO: REVISIONS

JAC

Drafting Services

719-498-8214

12218 Crystal Downs Rd.

MAIN LEVEL (BASEMENT)

FOR

MASTER PLAN

DATE: 3/19/18

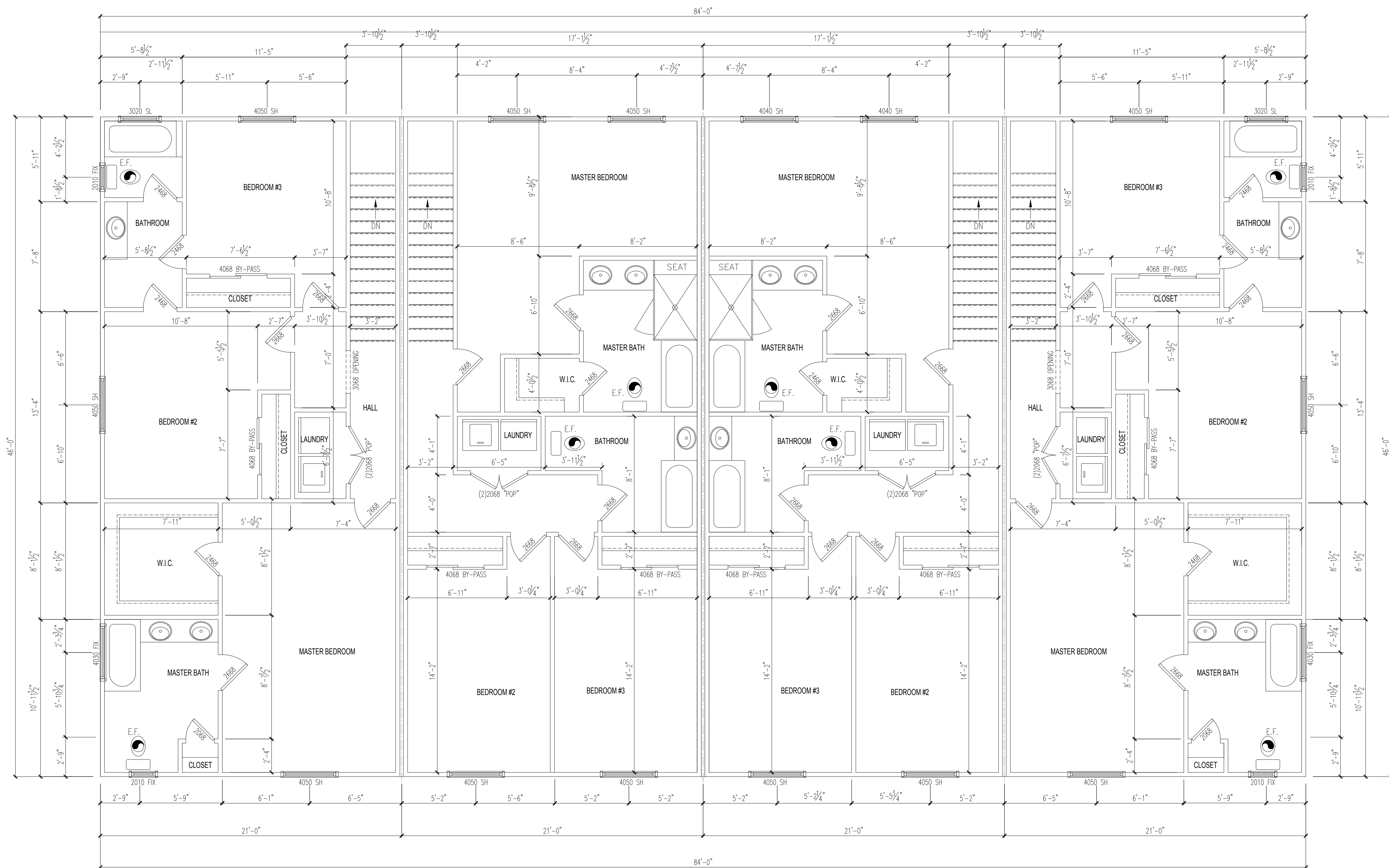
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UPPER LEVEL

NO: REVISIONS

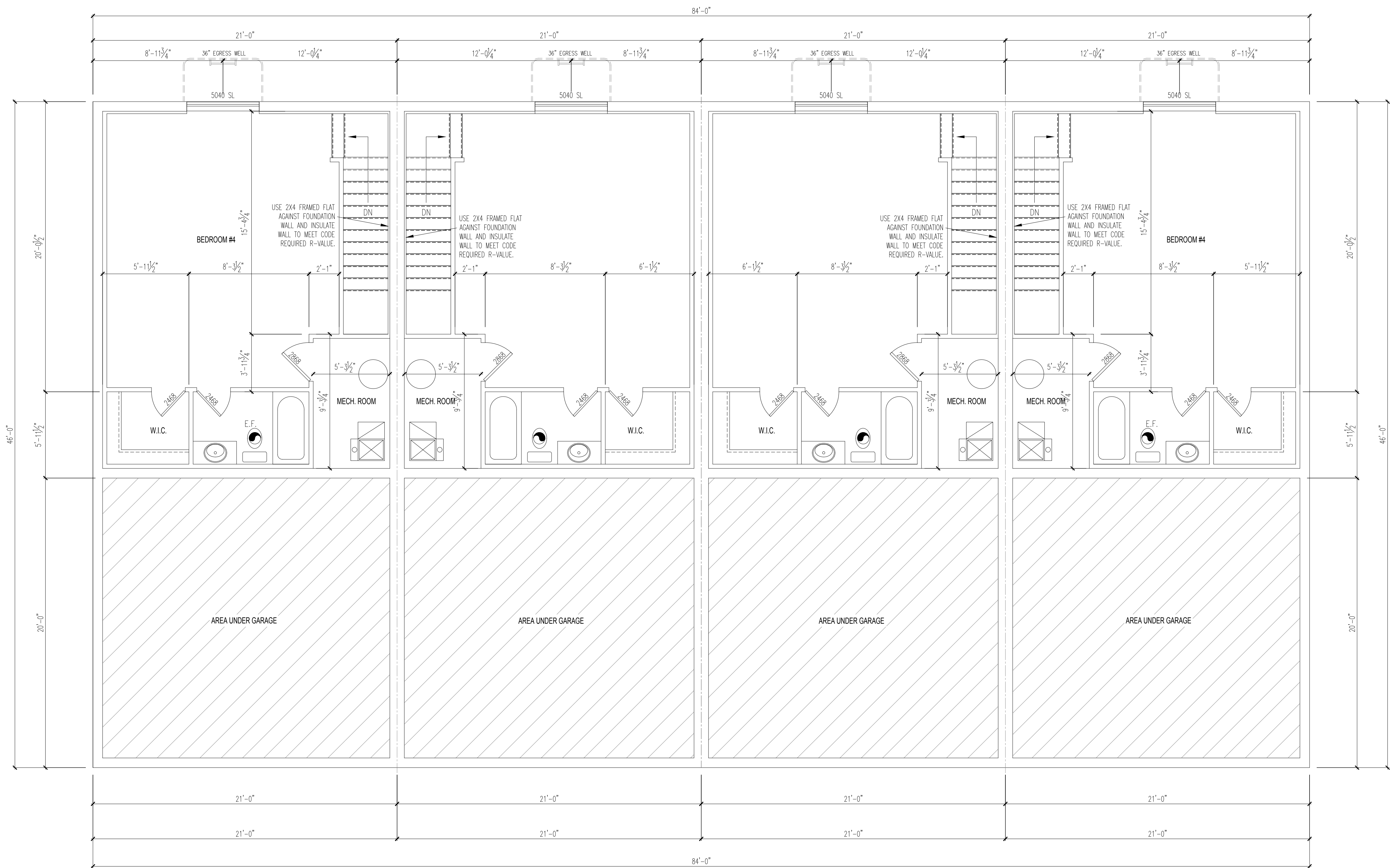
JAC  
Drafting Services

719-498-8214  
J.E. Dill  
12218 Crystal Downs Rd.

UPPER LEVEL (BASEMENT)  
FOR  
MASTER PLAN

DATE: 3/19/18  
SCALE: AS SHOWN  
JOB NO.: 1000  
SHEET:  
A 4.0





BASEMENT LEVEL

NO: REVISIONS

JAC  
Drafting Services

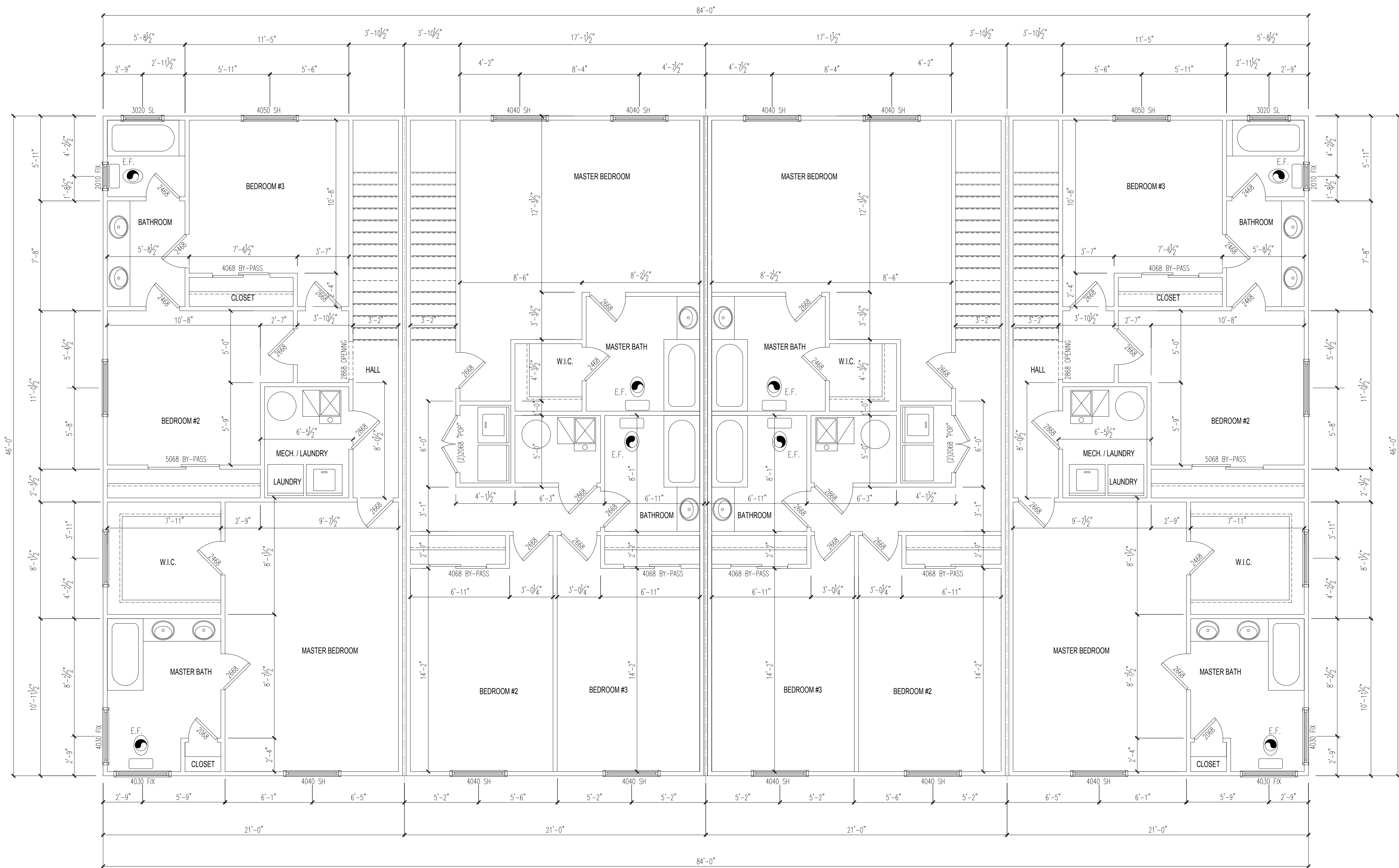
719-498-8214  
J.E. Dlott  
12218 Crystal Downs Rd.

BASEMENT LEVEL  
FOR  
MASTER PLAN

DATE: 3/19/18  
SCALE: AS SHOWN  
JOB NO.: 1000  
SHEET:

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UPPER LEVEL (SLAB)

NO: REVISIONS

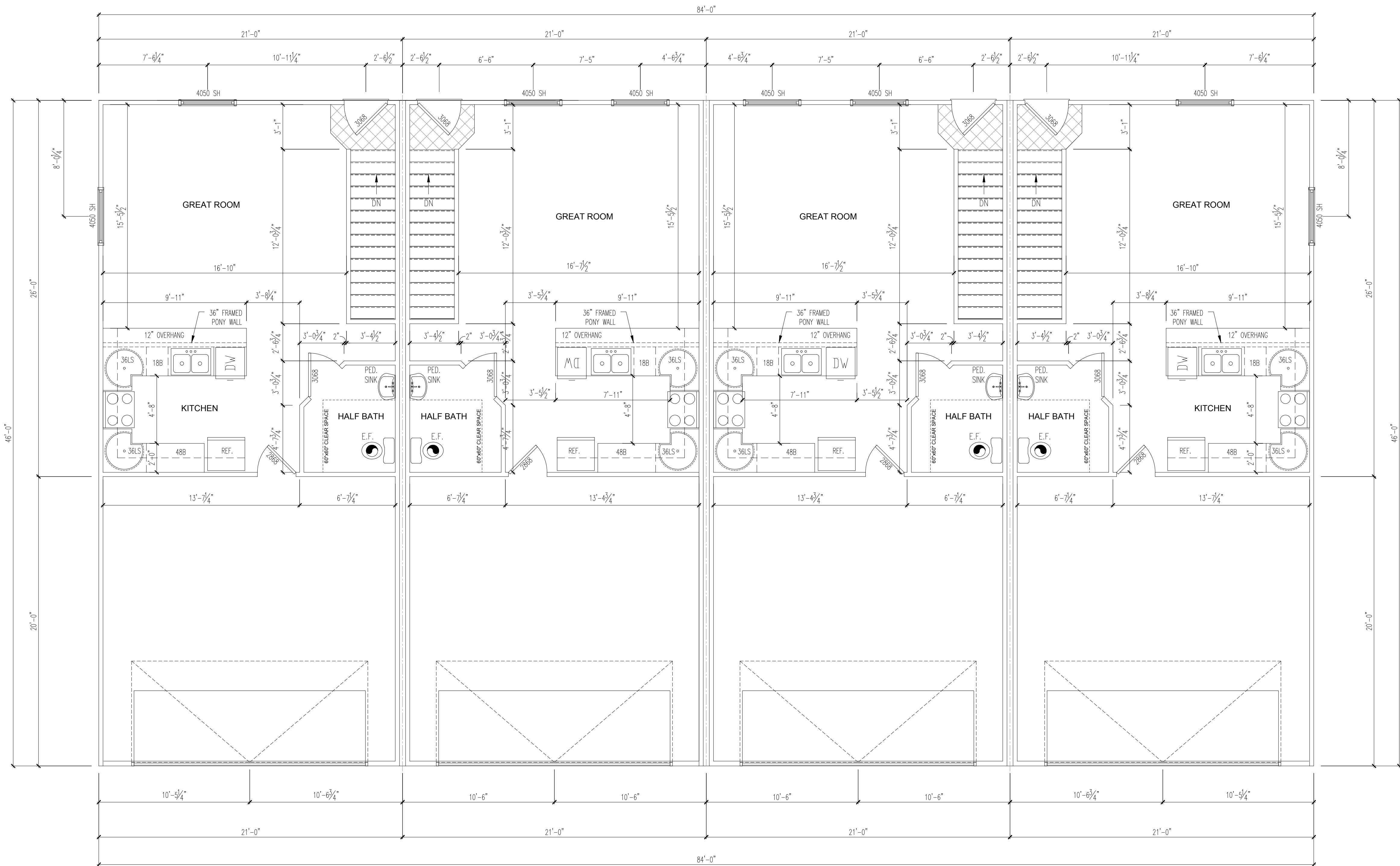
JAC  
Drafting Services

719-498-8214  
J.E. Dillott  
12218 Crystal Downs Rd.

UPPER LEVEL  
FOR  
MASTER PLAN

DATE: 3/19/18  
SCALE: AS SHOWN  
JOB NO.: 1000  
SHEET:  
A 6.0





MAIN LEVEL (SLAB)

SQUARE FOOTAGE(SLAB MODEL)

MAIN FLOOR: 541

UPPER FLOOR: 960

TOTAL LIVING: 1501

2 CAR GARAGE: 416

NO: REVISIONS

JAC

Drafting Services

719-498-8214

12218 Crystal Downs Rd.

MAIN LEVEL

FOR

MASTER PLAN

DATE: 3/19/18

SCALE: AS SHOWN

JOB NO.: 1000

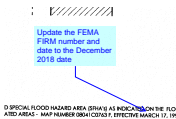
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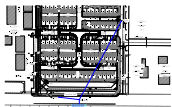
# Markup Summary

Daniel Torres (2)



**Subject:** Callout  
**Page Label:** [2] 61093-DEV-SP-DP-2  
**Author:** Daniel Torres  
**Date:** 4/22/2019 3:57:21 PM  
**Color:** ■

Update the FEMA FIRM number and date to the December 2018 date



**Subject:** Callout  
**Page Label:** [2] 61093-DEV-SP-DP-2  
**Author:** Daniel Torres  
**Date:** 4/22/2019 4:05:12 PM  
**Color:** ■

Review 2: Add EPC driveway detail SD\_2-24 to the plans. Additionally indicate that the driveway and sidewalk at these utility dept. driveways are to be 8" thick.  
Review 3: Unresolved