CONSTRUCTION NOTES:

- 1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM 260-1990 FOR DESIGNATION (LINE-SPOTTING) OF EXISTING PUBLIC UTILITIES AND EXISTING UTILITIES OWNED AND OPERATED BY ALBUQUERQUE PUBLIC SCHOOLS.
- 2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
- 3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- 4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
- 5. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION. THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

EROSION CONTROL MEASURES:

- 1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
- 2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET
- 3. WHEN APPLICABLE, CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" FROM THE CITY AND/OR FILE A NOTICE OF INTENT (N.O.I.) WITH THE EPA PRIOR TO BEGINNING CONSTRUCTION.

CITY OF ALBUOUEROUE DEVELOPMENT & BUILDING SERVICES CENTER PLANNING DEPARTMENT/HYDROLOGY SECTION

HYDROLOGY & TRANSPORTATION PREDESIGN CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NUMBER: F10/D5_DATE: 02-12-2009 CROSS REFERENCE NUMBERS: EPC_____ DRB___ DRC___ HMCG 2009 004.1 SUBJECT: CHAPARRAL ELEMENTARY SCHOOL ADDITIONAL & SITE IMPROVEMENTS STREET ADDRESS: 6325 MILNE ROAD NW SUBDIVISION NAME: TRACT B. CHAPARRAL ELEMENTARY SCHOOL

PRELIMINARY& FINAL PLAT

- X BUILDING PERMIT GRADING PERMIT
- SITE DEVELOPMENT PLAN FOR SUBDIVISION

 X OTHER MASTER DRAINAGE PLAN UPDATE

ATTENDEE: JEFF MORTENSEN BRAD BINGHAM

ORGANIZATION: HYDROLOGY

PHONE: 345-4250

FINDINGS:

A. THE ORIGINAL SUBMITTAL FOR THIS SITE IS DATED 2/9/83 (BY EMCG)

- B. SINCE THE SITE WAS ORIGINALLY DEVELOPED, ADDITIONAL PORTABLE CLSSROOMS HAVE BEEN ADDED THAT HAVE NOT BEEN DEPICTED ON SUBSEQUENT DRAINAGE SUBMITTALS
- C. NO SUBSEQUENT SUBMITTALS FOUND IN THE CITY DRAINAGE FILES EXCEPT BUS LANE AND PARKING LOT EXPANSION THAT HAVE BEEN APPROVED BUT NOT CERTIFIED BY THE ENGINEER OF RECORD (NOT HMCG)
- D. NEW PUBLIC STORM DRAIN CONSTRUCTED THROUGH SITE PROVIDING OUTFALL FOR RINCONADA MESA TO LADERA BASIN #16B SOUTH SUMP (NOT SHOWN ON EITHER DRAINAGE SUBMITTAL REFERENCED ABOVE)
- E. THE 1983 SUBMITTAL IS BASED UPON OBSOLETE HYDROLOGY METHODS NO LONGER ACCEPTED BY THE COA
- F. THE 1983 SUBMITTAL WAS APPROVED WITHOUT REQUIRING AN ENGINEER'S DRAINAGE CERTIFICATION; 1983 SUBMITTAL PRE-DATES THE REQUIREMENT OF CERTIFICATIONS FOR CERTIFICATE OF OCCUPANCY APPROVAL

- REQUIREMENTS FOR BUILDING PERMIT A. SITE SPECIFIC DRAINAGE SUBMITTAL REQUIRED TO SUPPORT BUILDING PERMIT APPROVAL B. SUBMITTAL FOR BUILDING PERMIT NEEDS TO REFERENCE AN UPDATE MASTER DRAINAGE
- PLAN (MDP) FOR THE SITE (SEE BELOW FOR REQUIREMENTS)
- C. FREE DISCHARGE TO THE LADERA BASIN #16B SOUTH SUMP PERMISSIVE AS WELL AS PROGRAMMED FOR THIS SITE AS WELL AS UPSTREAM CONTRIBUTING WATERSHED D. DISCHARGE TO THE LADERA BASIN #16B SOUTH SUMP MUST UTILIZE EXISTING POINTS OF
- DISCHARGE (I.E. NO NEW PENETRATIONS INTO THE BASIN WITHOUT WORK ORDER) E. THE LADERA BASIN #16B SOUTH SUMP IS OWNED, OPERATED AND MAINTAINED BY THE CITY
- F. CONNECTIONS TO ANY OF THE PUBLIC STORM DRAIN FACILITIES DISCHARGING INTO THE LADERA BASIN #16B SOUTH SUMP WILL REQUIRE SO #19 APPROVAL(S)
- G. REFERENCE DRAINAGE BASIN(S) AS DEFINED BY THE MDP REFERENCED AND DESCRIBED H. IDENTIFY ANY IMPACTS (CHANGES IN BASIN BOUNDARIES, INCREASES OR DECREASES IN
- RUNOFF, METHODS OF DISCHARGE) TO THE DRAINAGE BASINS AS DEFINED BY THE MIDP REFERENCED AND DESCRIBED BELOW

MASTER DRAINAGE PLAN -

- A. SUBMITTAL SHOULD INCLUDE/ADDRESS THE FOLLOWING MINIMUM CRITERIA: CURRENT SITE BOUNDARIES (PROPERTY REPLATTED SINCE DATE OF ORIGINAL
- 2) IDENTIFY EXISTING DRAINAGE BASIN BOUNDARIES PER CURRENT CONDITIONS
- PROVIDE A DISCUSSION OF EXISTING DRAINAGE BASINS AS DEFINED ABOVE
- PROVIDE CALCULATIONS FOR THE EXISTING DRAINAGE BASINS AS DEFINED ABOVE
- EXISTING PUBLIC STORM DRAINAGE IMPROVEMENTS WITHIN AND IMMEDIATELY ADJACENT TO THE SITE 6) FREE DISCHARGE REQUIREMENTS AND CRITERIA FOR SUBSEQUENT ONSITE
- DEVELOPMENT B. THE UPDATED MDP DOES NOT HAVE TO ADDRESS FUTURE PLANNED IMPROVEMENTS; IT IS
- INTENDED TO PROVIDE A BASIS FOR SUPPORTING SUBSEQUENT SITE SPECIFIC PLANS
- C. THE UPDATED MDP WILL DOCUMENT ALL CHANGES SINCE THE ORIGINAL 1983 PLAN AND THEREBY TAKE THE PLACE OF AN ENGINEER'S DRAINAGE CERTIFICATION OF PREVIOUSLY APPROVED SUBMITTALS AND/OR SUBMITTALS WITH NO OFFICIAL STATUS

THE UNDERSIGNED AGREE THAT THE ABOVE FINDINGS ARE SUMMARIZED ACCURATELY AND ARE ONLY SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THE FINDINGS ARE NOT REASONABLE OR THAT THEY ARE BASED UPON INACCURATE INFORMATION.

1.02-16-2009

NOTE: PLEASE PROVIDE A COPY OF THIS RECAP WITH EACH DRAINAGE & TRANSPORTATION

HMCG PROJECT NO. 2009.004.1

TITLE: CITY HYDROLOGIST

LEGAL DESCRIPTION

TRACT B, CHAPARRAL ELEMENTARY SCHOOL

BENCHMARKS

PROJECT BENCHMARK

CITY OF ALBUQUERQUE SURVEY CONTROL 1 3/4" METALLIC DISK STAMPED "ACS BM, 15-F11", EPOXIED TO TOP OF CURB 5.20 FEET SOUTH OF THE SSE CURB RETURN OF ATRISCO ROAD N.W. AND WESTERN TRAIL N.W. ELEVATION = 5110.03 FEET (NAVD 88)

T.B.M. **∦**1

A SPIKE WITH JMA CONTROL CAP STAMPED "NMPS #11184" LOCATED IN MEDIAN OF WESTERN TRAIL NW NORTH OF TRACT B, AS SHOWN ON SHEET 2.

ELEVATION = 5113.74 FEET (NAVD 88)

T.B.M. #2

A CHISELED "" ON TOP OF STORM INLET LOCATED AT THE SE QUADRANT OF INTERSECTION OF UNSER BOULEVARD N.W. AND WESTERN TRAIL N.W., AS SHOWN ON SHEET 2 ELEVATION = 5111.62 FEET (NAVD 88)

T.B.M. #3

A CHISELED "+" LOCATED AT THE SE PROPERTY CORNER OF TRACT B. AS SHOWN ON SHEET 2. ELEVATION = 5109.70 FEET (NAVD 88)

RO-200 V V

SCALE: $1'' = 750' \pm$

RO-20

F-10

ZONE X

· Ř-D

ENGINEER'S DRAINAGE CERTIFICATION

JEFFREY G. MORTENSEN, NMPE 8547, OF THE FIRM HIGH MESA CONSULTING GROUP, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED, DRAINED AND CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 12-22-2011 AND REVISED 05-15-2012 TO INCORPORATE AN ADJACENT BUSBUY (BY SEPARATE SUBMITTAL). THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR PERSONNEL UNDER MY DIRECT SUPERVISION AS SUPPLEMENTAL SITE DATA COMBINED WITH RECORD INFORMATION OBTAINED FROM THE AS-BUILT SURVEY DATED 11-16-2012 PERFORMED UNDER THE DIRECT SUPERVISION OF CHARLES G. CALA, JR., (NMPS 11184) OF THE FIRM HIGH MESA CONSULTING GROUP AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED TO DOCUMENT COMPLETION OF THOSE IMPROVEMENTS IDENTIFIED ON THE APPROVED PLAN FOR THE OWNER AND CITY OF ALBUQUERQUE TO SATISFY CONDITIONS OF GRADING AND PAVING APPROVAL

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE AND SPECIFIC LIMITED ASPECTS OF THIS PROJECT. THIS CERTIFICATION DOES NOT ADDRESS ADA COMPLIANCE WHICH IS BEYOND THE SCOPE OF GRADING AND DRAINAGE. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.



CONSTRUCTION UNSER BLVD. SITE ZONE AE (EL 5105) WESTERN TRL 1% ANNUAL CHANCE FLOOD DISCHARGE Chappara ONTAINED IN STORM DF Pond Albuquerque 350002 E VOLCANO RD SCHOOL SITE RAPL ZONE AH **CLEGHORN RD** (EL 5116 RN RD WAYNE RD

F.I.R.M.

INDEX OF DRAWINGS

SCALE: $1" = 500' \pm$

SHEET NO.	DESCRIPTION
1 OF 1	SUPPLEMENTAL SITE AND DRAINAGE INFORMATION
2 OF 11	OVERALL PLAN (FOR ORIENTATION)
3 OF 11	DEMOLITION PLAN (FOR EXISTING CONDITIONS)
6 OF 11	GRADING PLAN
	BEAUTICE DIVIDING AND

7 OF 11 DRAINAGE PLAN AND CALCULATIONS 8 OF 11 EROSION CONTROL PLAN

EROSION CONTROL DETAILS AND SECTIONS

JEPFREY/G. MORTENSEN, NMPE 8547

01-02-2013

RECORD DRAWING

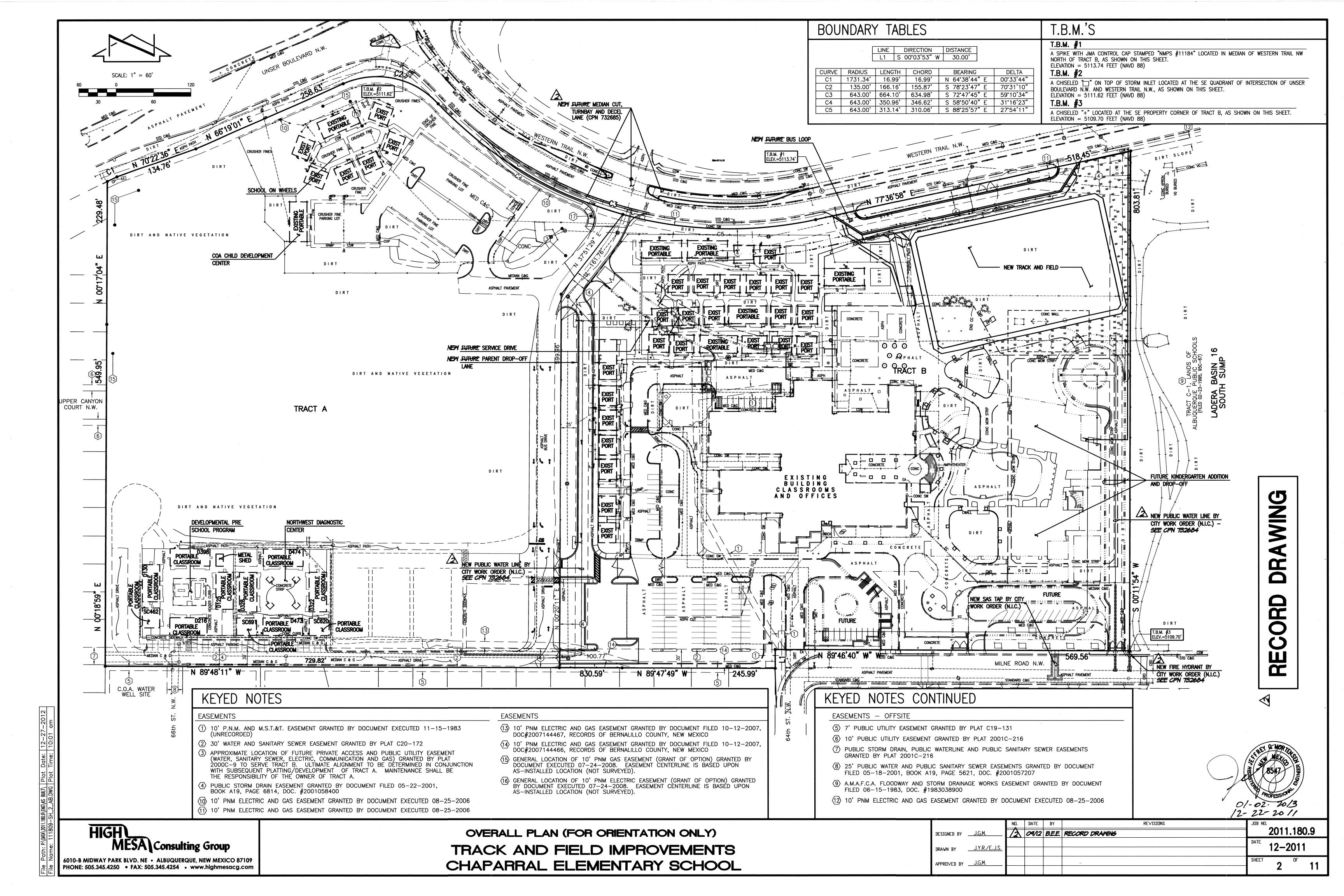
HYDROLOGY FILE NO. F10/D005

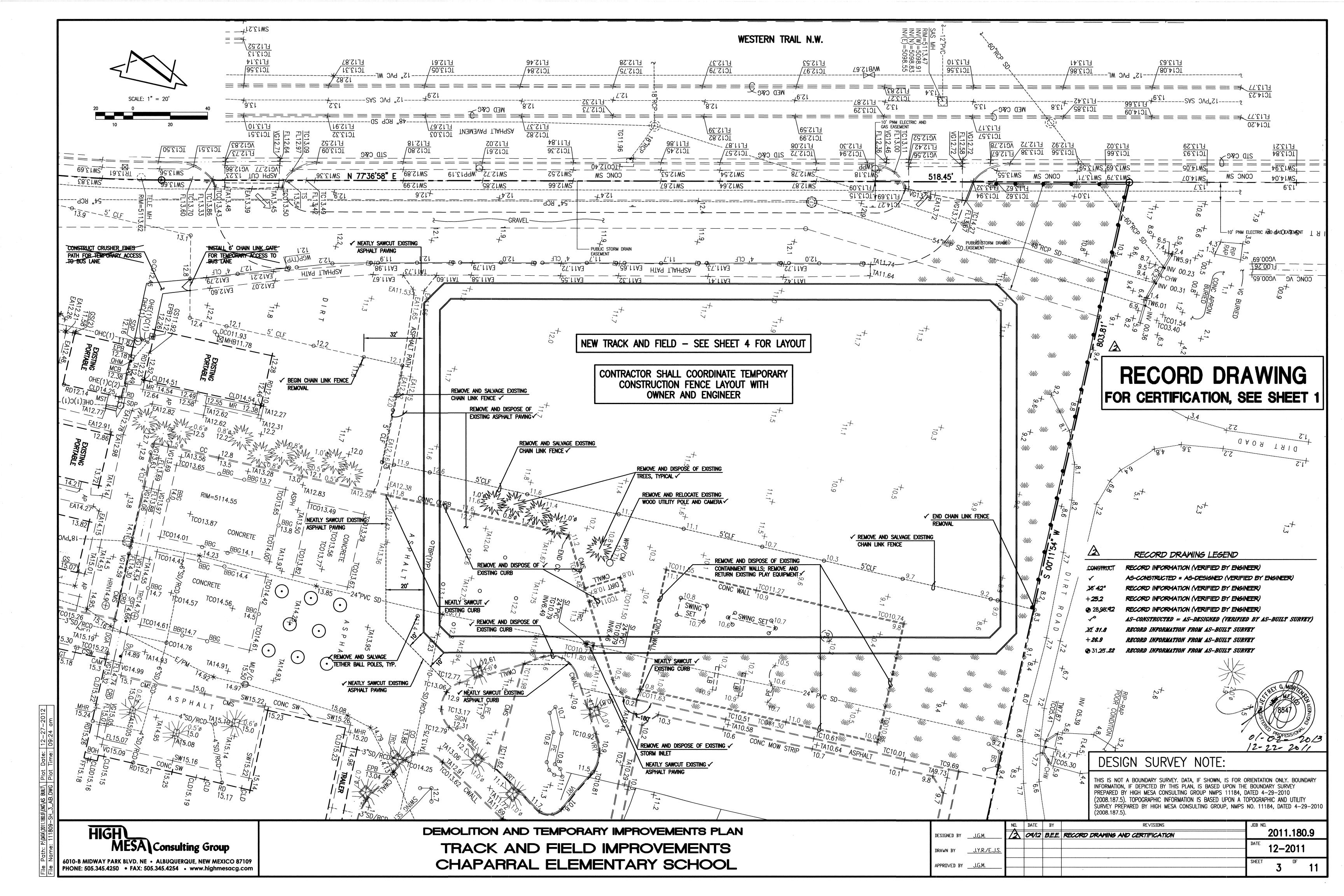
HIGH MESA Consulting Group SUPPLEMENTAL SITE AND DRAINAGE INFORMATION TRACK AND FIELD IMPROVEMENTS CHAPARRAL **ELEMENTARY SCHOOL**

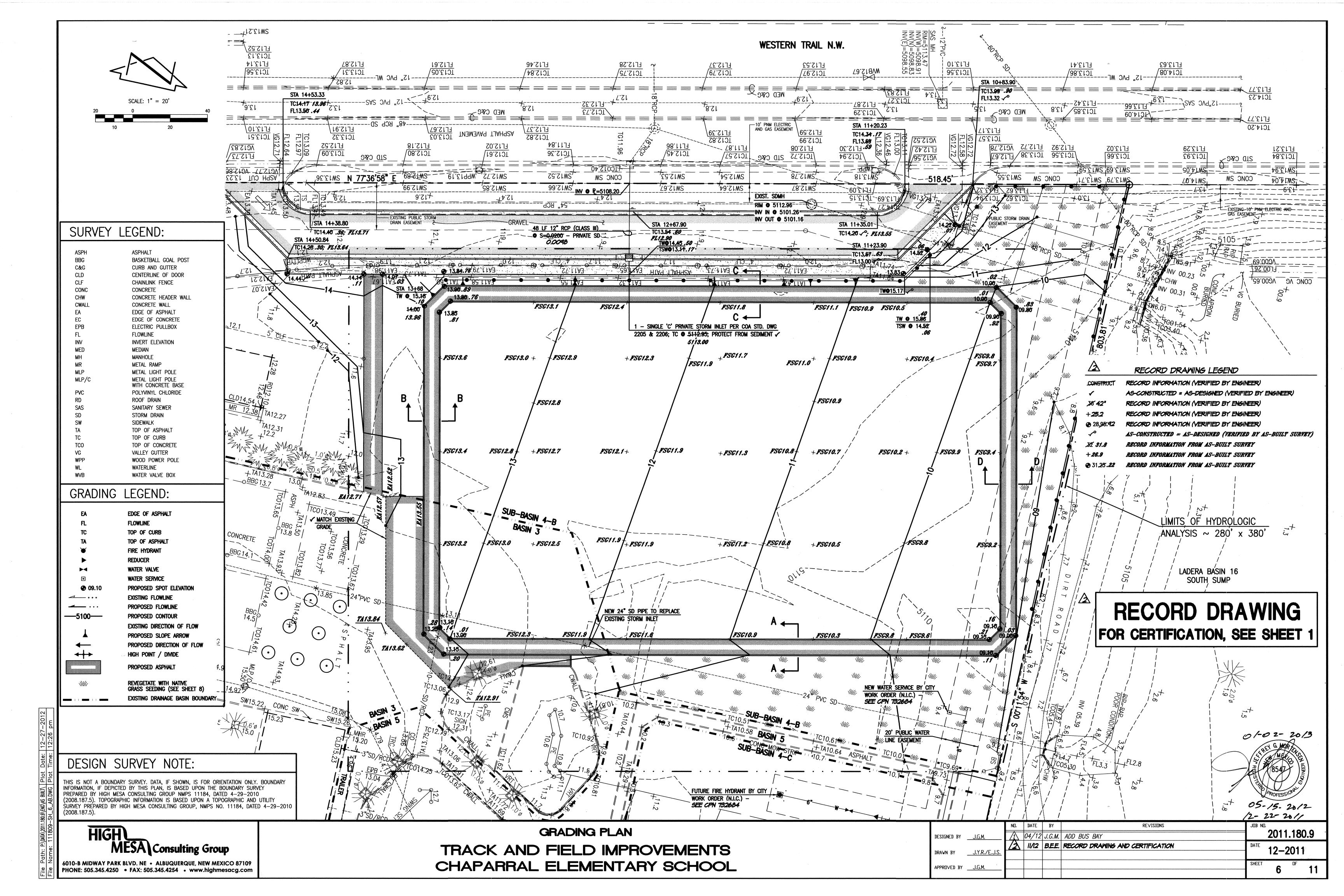
REVISIONS 2011.180.9 DESIGNED BY 12/12 BEE RECORD DRAWING 12-2011 J.Y.R./E.J.: ___J.G.M. APPROVED BY

P:\DATA\2011.180.9\ENG\ | Plot Date: | 12-27-2012 | 111809-SH_1-SM1.DWG | Plot Time: | 2:36 pm

6010-B MIDWAY PARK BLVD. NE • ALBUQUERQUE, NEW MEXICO 87109 PHONE: 505.345.4250 • FAX: 505.345.4254 • www.highmesacg.com







THIS PROJECT, LOCATED ON THE NORTHWEST MESA OF THE ALBUQUERQUE METROPOLITAN AREA, REPRESENTS A MODIFICATION TO AN EXISTING SITE WITHIN AN INFILL AREA. THE SCHOOL SITE IS LOCATED SOUTH OF WESTERN TRAIL NW BETWEEN UNSER BLVD NW AND ATRISCO DRIVE NW. THE SITE IS DEVELOPED AS AN ALBUQUERQUE PUBLIC SCHOOLS ELEMENTARY SCHOOL. THE PROJECT SITE LIES AT THE NORTHEAST CORNER OF THE SCHOOL CAMPUS. THE PROPOSED IMPROVEMENTS CONSIST OF A NEW TRACK AND TURF GRASS FIELD. THESE IMPROVEMENTS ARE BEING CONSTRUCTED IN ADVANCE OF A NEW KINDERGARTEN CLASSROOM BUILDING THAT WILL DISPLACE THE EXISTING TRACK AND FIELD. ALL

THE PROPOSED DRAINAGE CONCEPT IS TO MAINTAIN FREE DISCHARGE FROM THE SITE TO THE LADERA BASIN 16 SOUTH SUMP, A PUBLIC DETENTION POND, PER THE APPROVED 2009 MASTER DRAINAGE PLAN.

THIS SUBMITTAL IS MADE IN SUPPORT OF GRADING AND PAVING PERMIT APPROVALS.

PROPOSED IMPROVEMENTS LIE WITHIN BASINS 3 AND 4-B OF THE SITE.

II. PROJECT DESCRIPTION

AS SHOWN BY THE VICINITY MAP, THE SCHOOL SITE IS LOCATED SOUTH OF WESTERN TRAIL NW, BETWEEN UNSER BLVD NW AND ATRISCO DRIVE NW. THE PROJECT SITE IS LOCATED AT THE NORTHEAST CORNER OF THE SCHOOL CAMPUS. IMMEDIATELY ADJACENT TO THE LADERA BASIN 16 SOUTH SUMP. THE CURRENT LEGAL DESCRIPTION IS TRACT B, CHAPARRAL ELEMENTARY SCHOOL. AS SHOWN BY PANEL 114 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, DATED SEPTEMBER 26, 2008, THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE. THIS SITE DOES, HOWEVER, LIE IMMEDIATELY ADJACENT TO AN AE DESIGNATED FLOOD HAZARD ZONE THAT COINCIDES WITH THE LADERA BASIN 16 SOUTH SUMP, A PUBLIC DETENTION POND. THE PROJECT SITE IS CURRENTLY ALLOWED FREE DISCHARGE TO THE PUBLIC DETENTION

III. BACKGROUND DOCUMENTS & RESEARCH

THE PREPARATION OF THIS SUBMITTAL RELIED UPON THE FOLLOWING DOCUMENTS:

- MASTER DRAINAGE PLAN PREPARED BY HIGH MESA CONSULTING GROUP, NMPE, 8547, DATED JUNE 15, 2009. THE APPROVED 2009 PLAN DEFINES THE EXISTING BASINS OF THE SCHOOL SITE AND ALLOWS FOR FREE DISCHARGE OF DEVELOPED RUNOFF FROM THE SITE TO THE LADERA BASIN 16 SOUTH SUMP, A PUBLIC DETENTION POND. THE PROPOSED WORK LIES WITHIN BASIN 4-B AND THE EAST PORTION OF BASIN 3
- TOPOGRAPHIC SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, NMPS NO. 11184, DATED APRIL 06, 2009. THE SURVEY PROVIDES THE EXISTING CONDITIONS FOR THIS PROJECT.
- CHAPARRAL ELEMENTARY SCHOOL DRAINAGE PLAN PREPARED BY HIGH MESA CONSULTING GROUP (FORMERLY TOM MANN & ASSOCIATES) DATED MARCH 09, 1983. THE 1983 DRAINAGE PLAN ESTABLISHED THAT FREE DISCHARGE OF DEVELOPED RUNOFF FROM THE SCHOOL INTO THE LADERA BASIN 16 SOUTH SUMP IS PERMISSIBLE. THE 1983 PLAN PROVIDES THE BASIS FOR THE FREE DISCHARGE OF RUNOFF FROM THE SITE TO THE LADERA BASIN 16

IV. EXISTING CONDITIONS

THE PROJECT SITE LIES WITHIN BASIN 4-B AND THE EAST PORTION OF BASIN 3 AT THE NORTHEAST CORNER OF THE CAMPUS. THE PROJECT SITE CONSISTS OF THE NORTHEAST CORNER OF THE DEVELOPED PLAYGROUND, INCLUDING BOTH PAVED AND UNPAVED PLAY AREAS. THE UNPAVED AREAS ARE COMPRISED OF BARE SOIL AREA AND NATIVE VEGETATED GROUND COVER. RUNOFF GENERALLY SHEETFLOWS WEST TO EAST ACROSS THE SITE TO FREE DISCHARGE DIRECTLY TO THE LADERA BASIN 16 SOUTH SUMP.

A SMALL AMOUNT OF RUNOFF FROM THE EAST PORTION OF BASIN 3 IS COLLECTED VIA PRIVATE STORM INLET LOCATED IN A SUMP CONDITION. THE INLET CONNECTS TO AN EXISTING PRIVATE STORM DRAIN SYSTEM THAT CONVEYS UPSTREAM FLOWS TO THE LADERA BASIN 16 SOUTH SUMP VIA DISCHARGE THROUGH A HEADWALL.

THERE ARE NO APPARENT OFFSITE FLOWS IMPACTING THE PROJECT SITE. IN ACCORDANCE WITH THE 2009 MDP, RUNOFF FROM ONSITE IMPROVEMENTS WEST OF THE PROJECT SITE SHEETFLOW ONTO BASINS 3 AND 4-B, ACROSS THE EXISTING PLAY AREAS. AND FREE DISCHARGE TO THE LADERA BASIN 16 SOUTH SUMP.

V. DEVELOPED CONDITIONS

THE PROPOSED IMPROVEMENTS CONSIST OF A NEW TRACK AND TURF GRASS FIELD THAT WILL DISPLACE PAVED AND UNPAVED PLAY AREAS IN BASINS 3 AND 4-B. DEVELOPED RUNOFF FROM THE PROPOSED IMPROVEMENTS WILL SHEETFLOW FROM WEST TO EAST ACROSS THE NEW TRACK AND FIELD, FREE DISCHARGING DIRECTLY TO THE LADERA BASIN 16 SOUTH SUMP, CONSISTENT WITH THE 2009 MDP.

AN EXISTING STORM INLET WITHIN BASIN 3 WILL BE REMOVED BECAUSE IT CONFLICTS WITH THE PROPOSED WORK. THE STORM INLET IS NO LONGER NECESSARY AS THE EXISTING SUMP CONDITION WILL BE ELIMINATED. ALL RUNOFF FROM BASIN 3 WILL NOW SHEETFLOW ACROSS THE NEW TRACK AND FIELD TO FREE DISCHARGE TO THE LADERA BASIN 16 SOUTH SUMP. THE GAP IN THE PRIVATE STORM DRAIN CAUSED BY REMOVING THE INLET WILL BE REPLACED WITH SOLID PIPE. THE NEW PIPE WILL MAINTAIN THE CONVEYANCE OF UPSTREAM FLOWS WITHIN THE PRIVATE STORM DRAIN TO THE LADERA BASIN 16 SOUTH SUMP. ALL RUNOFF FROM BASINS 3 AND 4-B WILL CONTINUE TO DRAIN TO THE LADERA BASIN 16 SOUTH SUMP.

VI. GRADING PLAN

THE GRADING PLAN SHOWS 1.) EXISTING GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS, 2.) PROPOSED GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS, 3.) THE LIMIT AND CHARACTER OF THE EXISTING IMPROVEMENTS, 4.) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS, AND 5.) CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES.

VII. CALCULATIONS

THE CALCULATIONS CONTAINED HEREON ANALYZE THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT FOR THE PROJECT SITE. THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY, 1993, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED. AS DEMONSTRATED BY THESE CALCULATIONS, THE PROPOSED IMPROVEMENTS WILL RESULT IN A MINOR DECREASE IN THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED BY THIS PROJECT SITE.

VIII. CONCLUSIONS

THE FOLLOWING CONCLUSIONS HAVE BEEN ESTABLISHED AS A RESULT OF THE EVALUATIONS AND ANALYSES CONTAINED HEREIN:

- 1. THE SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE
- 2. THE FREE DISCHARGE OF DEVELOPED RUNOFF FROM THIS SITE TO THE LADERA BASIN 16 SOUTH SUMP IS
- CONSISTENT WITH PRIOR SUBMITTALS 3. THE PROPOSED IMPROVEMENTS WILL RESULT IN A MINOR DECREASE IN PEAK DISCHARGE AND VOLUME OF
- RUNOFF GENERATED BY AND DISCHARGING FROM THE SITE DUE TO AN INCREASE IN PERVIOUS LAND TREATMENTS 4. THE EXISTING APPROVED DRAINAGE CONCEPT OF FREE DISCHARGE FROM THE SITE TO LADERA BASIN 16 SOUTH
- SUMP WILL NOT BE ALTERED AND HENCE MAINTAINED. 5. THE PROPOSED IMPROVEMENTS WILL NOT ADVERSELY IMPACT DOWNSTREAM PROPERTIES OR CONDITIONS

CALCULATIONS

A. PRECIPITATION ZONE :

2.20 B. $P_{100, 6 HR} = P_{360} =$

C. TOTAL PROJECT AREA (A_T) = 106,400 SF (280' X 380' = 106,400 SF) 2.43 AC

D. LAND TREATMENTS

SITE CHARACTERISTICS

1. EXISTING LAND TREATMENT

TREATMENT	AREA (SF/AC)	%
	21,930 / 0.50	21
C	65,780 / 1.51	62
D	18,690 / 0.42	17

2. DEVELOPED LAND TREATMENT

TREATMENT	AREA (SF/AC)	%
В	53,940 / 1.24	51
C	31,115 / 0.71	29
D	21,355 / 0.48	20

7.2 CFS

6.7 CFS

(DECREASE)

II. HYDROLOGY

A. EXISTING CONDITION

- 1. VOLUME $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$ (0.67*0.50) + (0.99*1.51) + (1.97*0.42)/2.43 =1.09 IN $V_{100.6 \text{ HR}} = (E_W/12)A_T = (1.09/12)2.43 =$ 0.2207 AC-FT = 9,610 CF
- 2. PEAK DISCHARGE $Q_{P} = Q_{PA}A_{A} + Q_{PB}A_{B} + Q_{PC}A_{C} + Q_{PD}A_{D}$ $Q_P = Q_{100} = (2.03 * 0.50) + (2.87 * 1.51) + (4.37 * 0.42) =$

B. DEVELOPED CONDITION

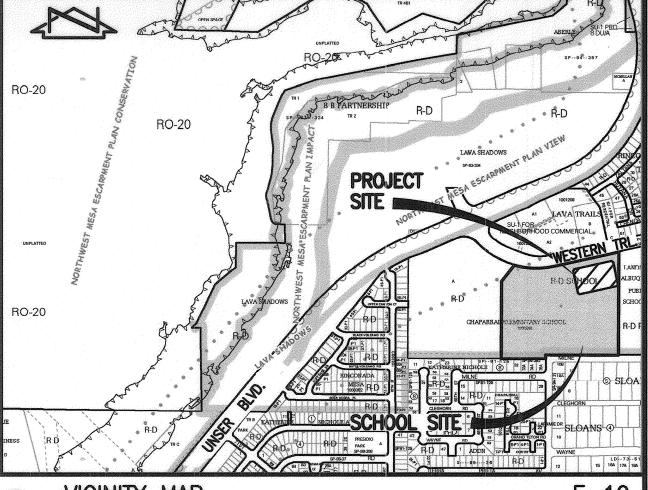
- 1. VOLUME $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$
- (0.67*1.24) + (0.99*0.71) + (1.97*0.48)/2.43 =1.02 IN $V_{100, 6 HR} = (E_W/12)A_T = (1.02/12)2.43 =$ 0.2066 AC-FT = 9,000 CF 2. PEAK DISCHARGE
- $Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$
- $Q_P = Q_{100} = (2.03*1.24) + (2.87*0.71) + (4.37*0.48) =$
- C. COMPARISON
- $\Delta V_{100, 6 HR} = 9,000 9,610 =$
- 2. PEAK DISCHARGE
- $\Delta Q_{100} = 6.7 7.2 =$ -0.5 CFS (DECREASE)

CONSTRUCTION NOTES:

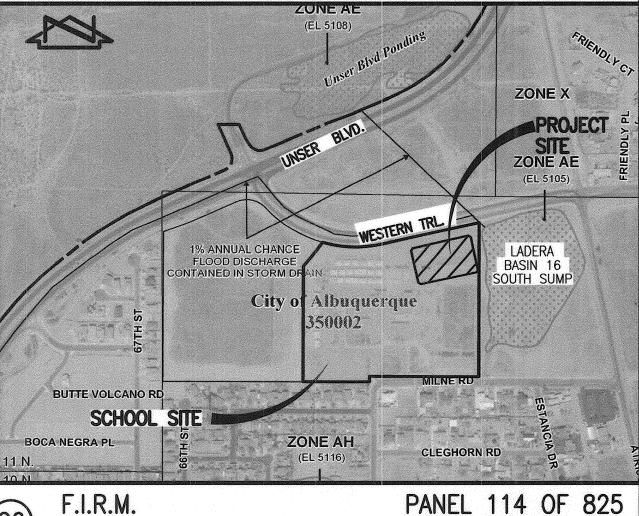
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VICINITY MAP SCALE: 1" = 750'



LEGAL DESCRIPTION

TRACT B, CHAPARRAL ELEMENTARY SCHOOL. ALBUQUERQUE. NEW MEXICO.

BENCHMARKS

PROJECT BENCHMARK

CITY OF ALBUQUERQUE SURVEY CONTROL 1 3/4" METALLIC DISK STAMPED "ACS BM, 15-F11", EPOXIED TO TOP OF CURB 5.20 FEET SOUTH OF THE SSE CURB RETURN OF ATRISCO ROAD N.W. AND WESTERN TRAIL N.W. ELEVATION = 5110.03 FEET (NAVD 88)

A SPIKE WITH JMA CONTROL CAP STAMPED "NMPS #11184" LOCATED IN MEDIAN OF WESTERN TRAIL NW NORTH OF TRACT B. AS SHOWN ON SHEET 2. ELEVATION = 5113.74 FEET (NAVD 88)

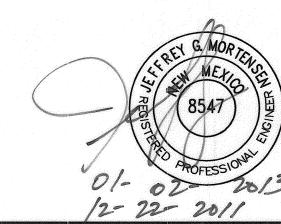
T.B.M. #2

A CHISELED "T" ON TOP OF STORM INLET LOCATED AT THE SE QUADRANT OF INTERSECTION OF UNSER BOULEVARD N.W. AND WESTERN TRAIL N.W., AS SHOWN ON SHEET 2 ELEVATION = 5111.62 FEET (NAVD 88)

T.B.M. #3

A CHISELED "+" LOCATED AT THE SE PROPERTY CORNER OF TRACT I AS SHOWN ON SHEET 2. ELEVATION = 5109.70 FEET (NAVD 88)

RECORD DRAWING

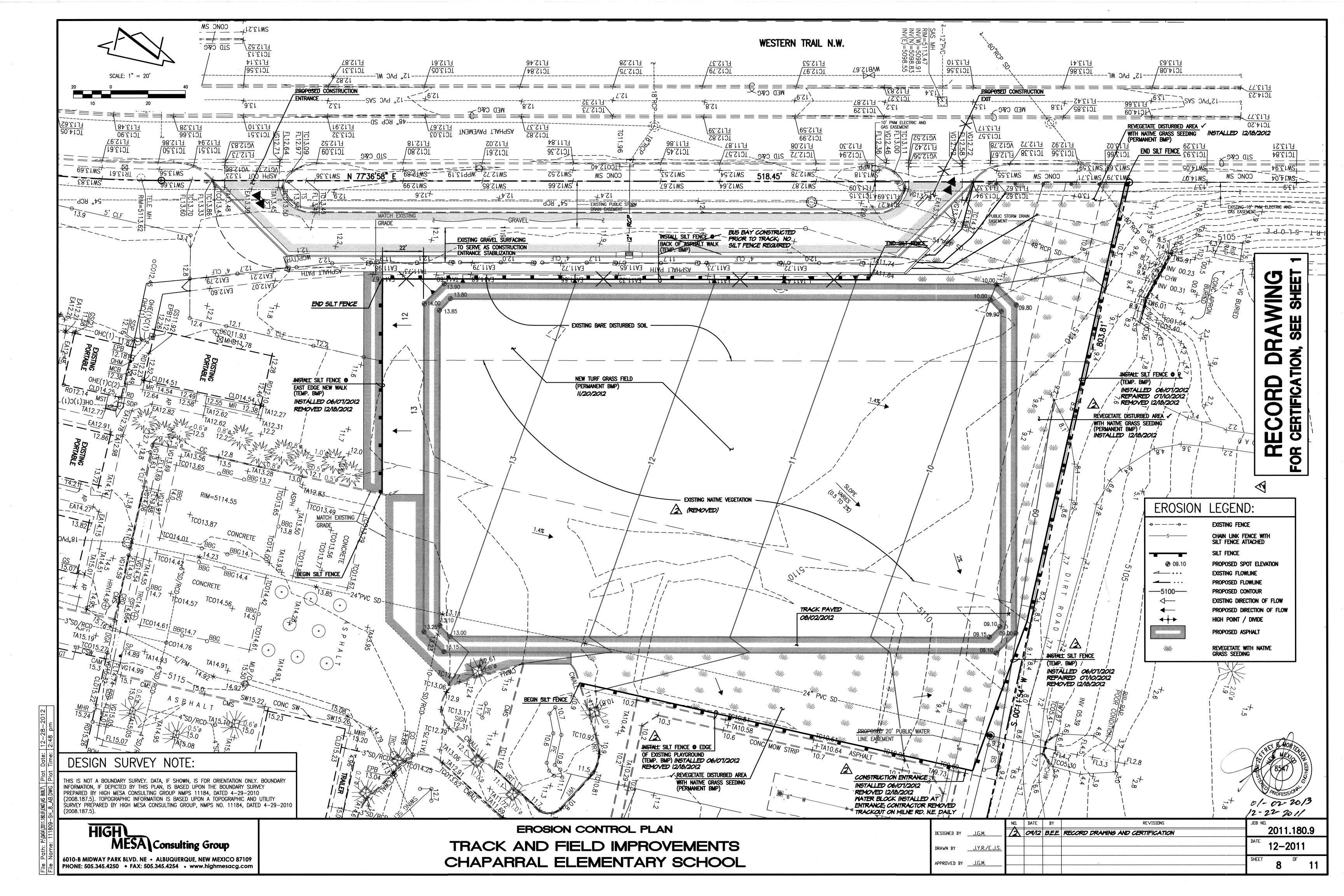


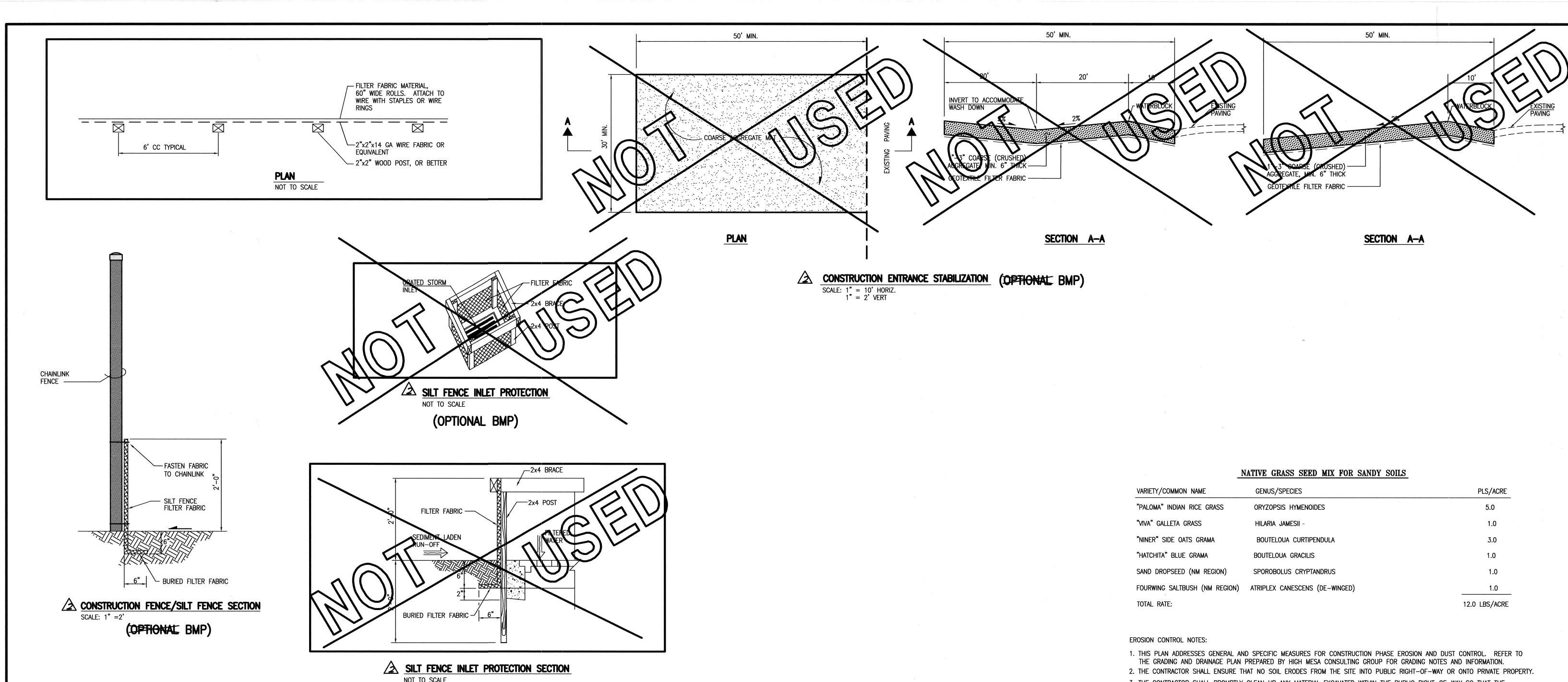
MESA Consulting Group

DRAINAGE PLAN AND CALCULATIONS TRACK AND FIELD IMPROVEMENTS CHAPARRAL ELEMENTARY SCHOOL

REVISIONS 2011.180.9 2 09/12 BEE. RECORD DRAWING DESIGNED BY 11-2011 ___J.Y.R./E.J.S DRAWN BY APPROVED BY

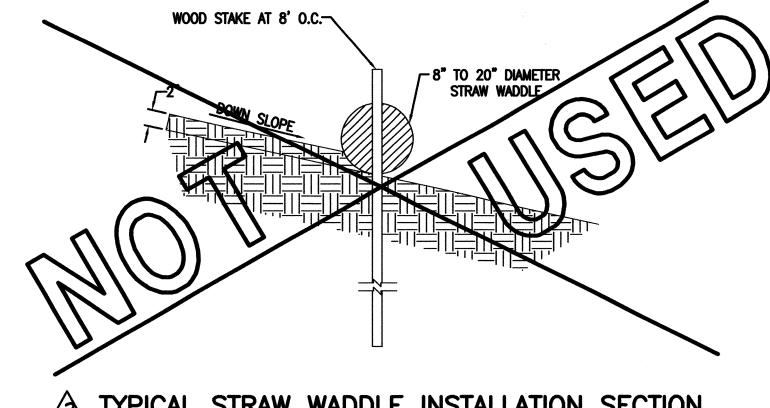
6010-B MIDWAY PARK BLVD. NE . ALBUQUERQUE, NEW MEXICO 87109 PHONE: 505.345.4250 • FAX: 505.345.4254 • www.highmesacg.com





TOE-IN METHOD JOINING SECTIONS POSTS (2"x2" WOOD POST OR BETTER) REINFORCEMENT NETTING (2"x2"x14 GA WIRE FABRIC OR EQUIVALENT) FILTER FABRIC POSTS SECTION B POSTS SECTION B SECTION B SECTION A SECTION A

PREFABRICATED SILT FENCE DETAILS



TYPICAL STRAW WADDLE INSTALLATION SECTION

SCALE: 1" = 1'-0"

(OPTIONAL BMP)

- 3. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- 4. CONCRETE TRUCKS SHALL BE SENT BACK TO PLANT FOR WASHING. THE WASHING OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ON THIS SITE
- 5. THE CONTRACTOR SHALL SECURE ALL REQUIRED PERMITS PRIOR TO BEGINNING CONSTRUCTION.
- 6. THE CONTRACTOR SHALL PROMPTLY REMOVE SEDIMENT ACCUMULATION FROM SILT FENCES WITHIN 48 HOURS OF A RAINFALL EVENT.
- 7. THE CONTRACTOR SHALL PICK UP LITTER AND CONSTRUCTION DEBRIS ON A DAILY BASIS.
- 8. OFFSITE MATERIAL STORAGE AREAS USED BY THIS PROJECT ARE CONSIDERED PART OF THE PROJECT AND ARE SUBJECT TO THE REQUIREMENTS OF THIS EROSION CONTROL PLAN.
- 9. THE CONTRACTOR SHALL IMPLEMENT ON-SITE STRUCTURAL EROSION CONTROL PRACTICES AS REQUIRED TO COMPLY WITH THE EROSION CONTROL PLAN. THESE PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: SILT FENCES, EARTHEN DIKES, DRAINAGE SWALES, SEDIMENT TRAPS, CHECK DAMS, SUBSURFACE DRAINS, PIPE SLOPE DRAINS, LEVEL SPREADERS, STORM RETAINING SYSTEM, GABIONS AND TEMPORARY OR PERMANENT SEDIMENT BASINS.
- 10. THE CONTRACTOR SHALL MINIMIZE OFFSITE VEHICLE TRACKING OF SEDIMENT AND DUST GENERATION.
- 11. UPON COMPLETION OF MASS GRADING, ALL DISTURBED AREAS SHALL BE STABILIZED WITH PERMANENT CONSTRUCTION, LANDSCAPING, VEGETATION AND/OR GRAVEL MULCH SILT FENCING CAN BE REMOVED UPON SUCCESSFUL ESTABLISHMENT OF VEGETATION.
- 12. REFER TO STORM WATER POLLUTION PREVENTION PLAN FOR PROJECT SPECIFIC PHASING AND INFORMATION. THIS PROJECT SHALL BE IMPLEMENTED IN PHASES TO MINIMIZE THE EXTENT AND DURATION OF SURFACE DISTURBANCE.
- 13. FOR EXAMPLES OF ADDITIONAL BMP'S, REFER TO THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM MANUAL STORM WATER MANAGEMENT GUIDELINES FOR CONSTRUCTION AND INDUSTRIAL ACTIVITIES, NOVEMBER 2002.
- 14. THE OWNER HAS PREPARED THE SWPPP. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND SIGNING THE SWPPP AS WELL AS PROVIDING, MAINTAINING AND INSPECTING THE BMP'S ALONG WITH ANY REVISIONS THERETO.

RECORD DRAWING

DESIGNED BY

APPROVED BY



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