

# CITY OF ALBUQUERQUE

Planning Department  
David Campbell, Director



Mayor Timothy M. Keller

August 28, 2018

J. Graeme Means, P.E.  
High Mesa Consulting Group  
6010 B Midway Park Blvd NE  
Albuquerque, NM 87109

RE: **Montebello on Academy Renovation**  
**10500 Academy NE**  
**Grading Plan Stamp Date: 6/25/18**  
**Hydrology File: E21D028A**

Dear Mr. Means,

Based on the submittal received on 8/24/18, this project is approved for Building Permit. For information: per the DPM Chapter 22 Section 7, 24"x36" is currently the City's standard. This applies to all site plans, Grading & Drainage Plans, Traffic Circulation Plans, DRC Plans etc. Use this size on all future plans.

Prior to Certificate of Occupancy (For Information):

1. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

If you have any questions, please contact me at 924-3695 or [dpeterson@cabq.gov](mailto:dpeterson@cabq.gov).

Sincerely,

Dana Peterson, P.E.  
Senior Engineer, Planning Dept.  
Development Review Services

PO Box 1293

Albuquerque

NM 87103

[www.cabq.gov](http://www.cabq.gov)



# City of Albuquerque

Planning Department  
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

**Project Title:** \_\_\_\_\_ **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** \_\_\_\_\_

**City Address:** \_\_\_\_\_

**Applicant:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Other Contact:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**TYPE OF DEVELOPMENT:** \_\_\_\_\_ PLAT (# of lots) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE \_\_\_\_\_ ADMIN SITE

IS THIS A RESUBMITTAL? \_\_\_\_\_ Yes \_\_\_\_\_ No

**DEPARTMENT** \_\_\_\_\_ TRANSPORTATION \_\_\_\_\_ HYDROLOGY/DRAINAGE

Check all that Apply:

### TYPE OF SUBMITTAL:

- \_\_\_\_\_ ENGINEER/ARCHITECT CERTIFICATION
- \_\_\_\_\_ PAD CERTIFICATION
- \_\_\_\_\_ CONCEPTUAL G & D PLAN
- \_\_\_\_\_ GRADING PLAN
- \_\_\_\_\_ DRAINAGE REPORT
- \_\_\_\_\_ DRAINAGE MASTER PLAN
- \_\_\_\_\_ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- \_\_\_\_\_ ELEVATION CERTIFICATE
- \_\_\_\_\_ CLOMR/LOMR
- \_\_\_\_\_ TRAFFIC CIRCULATION LAYOUT (TCL)
- \_\_\_\_\_ TRAFFIC IMPACT STUDY (TIS)
- \_\_\_\_\_ STREET LIGHT LAYOUT
- \_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_
- \_\_\_\_\_ PRE-DESIGN MEETING?

### TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- \_\_\_\_\_ BUILDING PERMIT APPROVAL
- \_\_\_\_\_ CERTIFICATE OF OCCUPANCY
- \_\_\_\_\_ PRELIMINARY PLAT APPROVAL
- \_\_\_\_\_ SITE PLAN FOR SUB'D APPROVAL
- \_\_\_\_\_ SITE PLAN FOR BLDG. PERMIT APPROVAL
- \_\_\_\_\_ FINAL PLAT APPROVAL
- \_\_\_\_\_ SIA/ RELEASE OF FINANCIAL GUARANTEE
- \_\_\_\_\_ FOUNDATION PERMIT APPROVAL
- \_\_\_\_\_ GRADING PERMIT APPROVAL
- \_\_\_\_\_ SO-19 APPROVAL
- \_\_\_\_\_ PAVING PERMIT APPROVAL
- \_\_\_\_\_ GRADING/ PAD CERTIFICATION
- \_\_\_\_\_ WORK ORDER APPROVAL
- \_\_\_\_\_ CLOMR/LOMR
- \_\_\_\_\_ FLOODPLAIN DEVELOPMENT PERMIT
- \_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_

**DATE SUBMITTED:** \_\_\_\_\_ **By:** \_\_\_\_\_

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_



# TREASURY DIVISION DAILY DEPOSIT

Transmittals for:  
**PROJECTS Only**

\*\*\*\* DUPLICATE \*\*\*\*  
City of Albuquerque Treasury  
Date: 8/24/2018 Office: ANNEX  
Station ID: 9548 Cashier: TRSMIA  
Fund: 305 Trans: 13  
Account: 461615 Activity ID: 7547210  
Dept ID: 10500 Project ID: 24\_MS4  
Alloc Amt: \$800.00 Bus. Unit: PCDMD  
Trans Amt: \$800.00  
Check Tendered: \$800.00

## Payment In-Lieu for Storm Water Quality Volume Requirement

| CASH COUNT   | AMOUNT    | ACCOUNT<br>NUMBER | FUND<br>NUMBER | BUSINESS<br>UNIT | PROJECT ID | ACTIVITY<br>ID | AMOUNT          |
|--------------|-----------|-------------------|----------------|------------------|------------|----------------|-----------------|
| TOTAL CHECKS | \$ 800.00 | 461615            | 305            | PCDMD            | 24_MS4     | 7547210        | \$ 800.00       |
|              |           |                   |                |                  |            |                |                 |
| TOTAL AMOUNT |           |                   |                |                  |            | TOTAL DEPOSIT  | <b>\$800.00</b> |

Hydrology#: E21D028A Name: Montebello on Academy reno, 4615 sf imp  
Payment In-Lieu For Storm Water Quality  
Volume Requirement

Address/Legal Description: 10500 Academy NE  
Tr A2, The Meadows

DEPARTMENT NAME: Planning Department/Development Review Services, Hydrology

PREPARED BY Dana Peterson PHONE 924-3695

BUSINESS DATE 8/7/18

DUAL VERIFICATION OF DEPOSIT   
EMPLOYEE SIGNATURE

AND BY \_\_\_\_\_  
EMPLOYEE SIGNATURE

REMITTER: \_\_\_\_\_

AMOUNT: \_\_\_\_\_

BANK: \_\_\_\_\_

CHECK #: \_\_\_\_\_ DATE ON CHECK: \_\_\_\_\_

The Payment-in-Lieu can be paid at the Plaza del Sol Treasury, 600 2<sup>nd</sup> St. NW. **Bring two copies of this invoice to the Treasury** and provide a copy of the receipt to Hydrology, Suite 201, 600 2<sup>nd</sup> St. NW, or e-mail with the Hydrology submittal to [PLNDRS@cabq.gov](mailto:PLNDRS@cabq.gov).



## DRAINAGE PLAN

### I. INTRODUCTION AND EXECUTIVE SUMMARY

THIS PROJECT, LOCATED IN THE NORTHEAST HEIGHTS, REPRESENTS A MODIFICATION TO AN EXISTING SITE WITHIN AN INFILL AREA. THE PROPOSED DEVELOPMENT IS COMPRISED OF IMPROVEMENTS TO THREE AREAS: AREA 1 IS REMOVAL AND REPLACEMENT OF THE EXISTING PAVED DROP-OFF / ENTRANCE TO THE NORTH TO CORRECT EXISTING ACCESSIBILITY DEFICIENCIES, AREA 2 CONSISTS OF REPLACING AN EXISTING CONCRETE COURTYARD AND ASSOCIATED LANDSCAPING WITH A NEW BUILDING ADDITION AND ACCESSIBLE PATHWAYS, AND AREA 3 CONSISTS OF REMOVAL AND REPLACEMENT OF EXISTING PEDESTRIAN ACCESS SIDEWALK AT THE SOUTH ENTRANCE TO CORRECT ACCESSIBILITY DEFICIENCIES. THE DRAINAGE CONCEPT FOR THIS PROJECT WILL BE THE DISCHARGE OF DEVELOPED RUNOFF FROM THE SITE TO THE ADJACENT PUBLIC STREETS, WHILE MANAGING FIRST FLUSH FROM NEW DEVELOPMENT TO THE MAXIMUM EXTENT PRACTICABLE.

THIS SUBMITTAL IS MADE IN SUPPORT OF BUILDING PERMIT APPROVAL TO BE ISSUED BY THE CITY OF ALBUQUERQUE.

### II. PROJECT DESCRIPTION

AS SHOWN BY PANEL 144 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, REVISED SEPTEMBER 26, 2008, THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE. THIS SITE IS SITUATED APPROXIMATELY 1000 FT UPSTREAM OF THE PINO ARROYO, A PUBLIC STORM DRAIN CHANNEL. THE ARROYO IS A DESIGNATED ZONE 'A' FLOOD ZONE WHERE THE 100 YEAR FLOOD IS CONTAINED WITHIN THE CHANNEL.

### III. BACKGROUND DOCUMENTS AND RESEARCH

THE PREPARATION OF THIS SUBMITTAL RELIED UPON THE FOLLOWING DOCUMENTS:

- GRADING AND DRAINAGE PLAN PREPARED BY BOHANNEN HUSTON ON BEHALF OF SVERDRUP & PARCEL AND ASSOCIATES, DATED 09/1995. THIS 1995 PLAN ESTABLISHED THE OVERALL DRAINAGE PATTERN FOR THE SITE, WITH PRIVATE STORM DRAIN SYSTEMS AND SURFACE RUNOFF DRAINING RUNOFF GENERATED BY THE SITE TO THE NORTHWEST CORNER OF THE DEVELOPED SITE, ULTIMATELY FREE DISCHARGING INTO ACADEMY ROAD NE VIA SIDEWALK CULVERTS. FROM THIS POINT, RUNOFF DRAINS INTO A 48" PUBLIC STORM SYSTEM LOCATED AT THE INTERSECTION OF ACADEMY ROAD NE & EUBANK BLVD. THE 48" PUBLIC STORM DRAIN CONVEYS RUNOFF NORTH APPROXIMATELY 800 FT BEFORE IT OUTLETS INTO THE PINO ARROYO, A PUBLIC STORM DRAINAGE CHANNEL.
- PARTIAL TOPOGRAPHIC SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, NMPS 11184, DATED 4/11/2017. THE SURVEY PROVIDES THE EXISTING CONDITIONS FOR THIS PROJECT.

### IV. EXISTING CONDITIONS

THE EXISTING PROJECT SITE CONSISTS OF THREE (3) SEPARATE AREAS OF DEVELOPMENT. AREA 1 IS LOCATED AT THE MAIN DROP-OFF LOOP / NORTH ENTRANCE TO THE RETIREMENT FACILITY, AREA 2 IS LOCATED ALONG THE EAST SIDE OF THE RETIREMENT FACILITY, AND AREA 3 LOCATED AT THE SOUTH ENTRANCE TO THE NURSING WING.

AREA 1 CONSISTS OF ASPHALT PAVED DRIVEWAY, CONCRETE SIDEWALK PATHS AND STAIRS AND ASSOCIATED LANDSCAPING AT THE MAIN BUILDING ENTRANCE. THIS AREA CURRENTLY SURFACE DRAINS FROM SOUTH TO NORTH, ACROSS THE PAVED DROP-OFF LOOP AND TO THE MAIN DRIVE THAT LOOPS AROUND THE FACILITY. AT THIS POINT, RUNOFF DRAINS WEST WITHIN THE DRIVE TO AN EXISTING CONCRETE ROUNDOWN AND SIDEWALK CULVERT AT THE NORTHWEST CORNER OF THE SITE, WHERE IT FREE DISCHARGES TO ACADEMY ROAD NE.

AREA 2 CONSISTS OF AN EXISTING PAVED COURTYARD AND LANDSCAPING IMPROVEMENTS ALONG THE EAST SIDE OF THE MAIN BUILDING. THIS AREA DRAINS TO AN EXISTING PRIVATE STORM DRAIN SYSTEM THAT CONVEYS THE RUNOFF WEST, BENEATH THE BUILDING, AND DAYLIGHTS INTO THE MAIN DRIVEWAY LOOP AT THE WEST SIDE OF THE BUILDING. FROM THIS POINT, RUNOFF DRAINS NORTH WITHIN THE DRIVE TO THE NORTHWEST CORNER OF THE SITE, WHERE IT FREE DISCHARGES TO ACADEMY ROAD NE.

AREA 3 CONSISTS OF THE CONCRETE SIDEWALKS AND ASSOCIATED LANDSCAPING AT THE SOUTH ENTRANCE TO THE NURSING WING OF THE FACILITY. RUNOFF DRAIN FROM NORTH TO SOUTH THROUGH THE PARKING LOT TO THE MAIN DRIVE. FROM THIS POINT, RUNOFF DRAINS WITHIN THE DRIVE AROUND THE SOUTH END BUILDING AND DISCHARGES FROM THE SOUTHWEST CORNER OF THE SITE ONO THE NEIGHBORING PROPERTY. RUNOFF AT THIS POINT APPEARS TO DRAIN WEST THROUGH THE NEIGHBORING SITE TO ULTIMATELY DISCHARGE INTO THE PUBLIC STORM DRAIN SYSTEM IN EUBANK BLVD.

THERE ARE NO APPARENT OFFSITE FLOWS THAT IMPACT THE PROJECT SITE, AS THE SITE IS TOPOGRAPHICALLY EQUAL TO OR HIGHER THAN THE ADJACENT PUBLIC ROADWAYS OF ACADEMY ROAD AND ROLLING HILLS DRIVE TO THE NORTH AND EAST, AND IS HIGHER THAN THE NEIGHBORING PROPERTIES TO THE SOUTH AND WEST.

### V. DEVELOPED CONDITIONS

THE PROPOSED IMPROVEMENTS IN AREA 1 CONSIST OF REMOVAL OF THE EXISTING CONCRETE STAIRS, SIDEWALKS, CURBS, ASPHALT PAVED DROP-OFF LOOP, ASSOCIATED LANDSCAPING AND COVERED ENTRY. THIS AREA WILL BE REGRADED AND THE DROP-OFF LOOP RECONSTRUCTED TO THE DRIVE AROUND THE SOUTH END BUILDING AND DISCHARGES FROM THE SOUTHWEST CORNER OF THE SITE ONO THE NEIGHBORING PROPERTY. RUNOFF AT THIS POINT APPEARS TO DRAIN WEST THROUGH THE NEIGHBORING SITE TO ULTIMATELY DISCHARGE INTO THE PUBLIC STORM DRAIN SYSTEM IN EUBANK BLVD.

THE PROPOSED IMPROVEMENTS IN AREA 2 CONSIST OF THE REMOVAL THE EXISTING PAVED COURTYARD EAST OF THE BUILDING, AND THE CONSTRUCTION OF A NEW BUILDING ADDITION AND SMALLER PAVED COURTYARD, AS WELL AS NEW SIDEWALKS AND ADJACENT LANDSCAPED IMPROVEMENTS. THE EXISTING PRIVATE STORM DRAIN SYSTEM IN THIS AREA WILL BE EXTENDED AROUND THE NEW BUILDING ADDITION, WITH NEW PRIVATE STORM DRAIN INLETS ADDED TO COLLECT RUNOFF FROM THE BUILDING COURTYARD, AND LANDSCAPED AREAS, THE RUNOFF FROM THIS AREA WILL CONTINUE TO DRAIN PER THE EXISTING DRAINAGE PATTERN OF THE SITE, CONVEYED VIA EXISTING PRIVATE STORM DRAIN SYSTEM UNDER THE EXISTING MAIN BUILDING TO DAYLIGHT TO THE PAVED DRIVEWAY WEST OF THE BUILDING, THEN DRAINING NORTH WITHIN THE DRIVE TO ULTIMATELY FREE DISCHARGE AT THE NORTHWEST PROPERTY CORNER AND INTO ACADEMY ROAD. THERE WILL BE MINIMAL INCREASE IN RUNOFF GENERATED (80 CF) DUE TO REPLACING IMPERVIOUS COURTYARD PAVEMENT WITH IMPERVIOUS BUILDING AND COURTYARD PAVEMENT.

THE PROPOSED IMPROVEMENTS IN AREA 3 CONSIST OF THE REMOVAL OF THE EXISTING SIDEWALKS AND CURBS AT THE SOUTH NURSING ENTRANCE. THE SIDEWALKS AND CURBS WILL BE RECONSTRUCTED TO PROVIDE ADA ACCESSIBLE DROP-OFF AT THIS ENTRANCE. THERE WILL BE NO INCREASE IN IMPERVIOUS AREAS AS THE NEW SIDEWALKS AND CURBS WILL MATCH THE LIMITS OF THE EXISTING IMPROVEMENTS. THESE IMPROVEMENTS WILL NOT CHANGE THE EXISTING DRAINAGE PATTERN NOR WILL THERE BE AN INCREASE IN RUNOFF GENERATED IN THIS AREA.

AS IN THE EXISTING CONDITION, THERE WILL CONTINUE TO BE NO OFFSITE FLOWS IMPACTING THE PROJECT SITE.

### VI. FIRST FLUSH

THE PROPOSED WATER HARVESTING AREAS ONSITE ARE DESIGNED TO CAPTURE AND TREAT THE FIRST FLUSH RUNOFF GENERATED BY THE PROPOSED IMPROVEMENTS TO THE MAXIMUM EXTENT PRACTICABLE.

IN ORDER TO TREAT AND CAPTURE FIRST FLUSH RUNOFF, THE NEW STORM INLET GRATES IN THE AREA 2 DEPRESSED LANDSCAPING WILL BE RAISED 0.5 FEET ABOVE THE SURROUNDING LANDSCAPE IMPROVEMENTS TO CREATE WATER HARVESTING AREAS THAT WILL TREAT FIRST FLUSH RUNOFF TO THE MAXIMUM EXTENT PRACTICABLE.

FIRST FLUSH CALCULATIONS FOR THE NEW IMPERVIOUS AREAS PROPOSED BY THIS PROJECT INDICATE THAT 80 CF IS GENERATED BY AREA 1, 80 CF IS GENERATED BY AREA 2, AND 20 CF IS GENERATED BY AREA 3. THE WATER HARVESTING CAPACITY INCLUDED IN AREA 2 WILL CAPTURE AND TREAT THE 80 CF GENERATED BY THIS AREA 1 AND 3 HAVE MINIMAL OPPORTUNITY FOR DOWNSTREAM CAPTURE AND TREATMENT OF FIRST FLUSH RUNOFF; AS SUCH THE OWNER SHALL PAY A FEE FOR THE COMBINED FIRST FLUSH VOLUMES OF THESE TWO AREAS (100 CF).

### VII. GRADING PLAN

THE GRADING PLAN SHOWS 1.) EXISTING AND PROPOSED GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS, 2.) THE LIMIT AND PROPOSED IMPROVEMENTS, AND 3.) CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES. AS SHOWN BY THIS PLAN, THE PROPOSED IMPROVEMENTS WILL RESULT IN A MINOR INCREASE IN PEAK DISCHARGE AND VOLUME OF RUNOFF GENERATED BY THE SITE. TO THE MAXIMUM EXTENT PRACTICABLE, THE PROPOSED IMPROVEMENTS WILL DRAIN TO WATER HARVESTING AREAS TO TREAT THE FIRST FLUSH RUNOFF BEFORE FREE DISCHARGING FROM THE SITE.

### VIII. EROSION AND SEDIMENT CONTROL

THE PROJECT DISTURBS LESS THAN ONE-ACRE OF LAND, OR GREATER, HOWEVER THE NEW BUILDING ADDITION IN AREA 2 WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) THAT SHALL BE PREPARED AND MAINTAINED BY THE CONTRACTOR ON BEHALF OF THE OWNER.

### IX. CALCULATIONS

THE CALCULATIONS CONTAINED HEREON ANALYZE THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT. 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 NEGLIGIBLE (40 CF) INCREASE IN DEVELOPED RUNOFF ATTRIBUTABLE TO THE SLIGHTLY LARGER IMPERVIOUS BUILDING ADDITION IN AREA 2. FIRST FLUSH CALCULATIONS ARE ALSO INCLUDED TO DEMONSTRATE THE FIRST FLUSH GENERATED FOR EACH AREA THAT ORDINANCE REQUIRES MUST BE CAPTURED AND TREATED (OR FEE-IN-LIEU PAID TO THE CITY).

### X. CONCLUSIONS

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

- THIS PROJECT REPRESENTS A MODIFICATION TO AN EXISTING DEVELOPED SITE.
- THE PROPOSED IMPROVEMENT WILL MAINTAIN AND NOT ALTER THE EXISTING DRAINAGE PATTERNS OF THE SITE.
- THE PROPOSED IMPROVEMENTS WILL RESULT IN A NEGLIGIBLE INCREASE IN THE DEVELOPED PEAK DISCHARGE AND VOLUME OF RUNOFF VOLUME DISCHARGED FROM THE SITE.
- BASED UPON THE PROXIMITY OF THE PINO ARROYO TO THE SITE AND THE EXISTING ALLOWABLE FREE DISCHARGE CONDITION, THE PROPOSED IMPROVEMENTS WILL NOT ADVERSELY IMPACT DOWNSTREAM PROPERTIES OR DOWNSTREAM DRAINAGE CONDITIONS.
- EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED DUE TO THE NEW BUILDING ADDITION, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE AND MAINTAIN A SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR THIS PROJECT TO ENSURE CONSTRUCTION RELATED SEDIMENT DOES NOT DISCHARGE FROM THE SITE TO PUBLIC RIGHT-OF-WAY.
- PROPOSED WATER HARVESTING AREAS ARE INCLUDED TO CAPTURE AND TREAT THE FIRST FLUSH RUNOFF GENERATED BY THE SITE TO THE MAXIMUM EXTENT PRACTICABLE. FIRST FLUSH GENERATED RUNOFF FROM AREAS 1 AND 3 (100 CF) WILL NOT BE TREATED DUE TO MINIMAL OPPORTUNITY DOWNSTREAM OF THESE IMPROVEMENTS; THE OWNER WILL PAY A FEE-IN-LIEU FOR THIS UNTREATED FIRST FLUSH RUNOFF.

**NOTE:**  
THIS IS NOT A BOUNDARY SURVEY; DATA IS SHOWN FOR ORIENTATION ONLY.  
THE TOPOGRAPHIC INFORMATION DEPICTED HEREON IS BASED UPON THE  
"PARTIAL TOPOGRAPHICAL AND UTILITY SURVEY" PREPARED BY HIGH MESA  
CONSULTING GROUP, NMPS NO. 11184, DATED 04/11/2017 (2017.017.2).

## CALCULATIONS

### I. SITE CHARACTERISTICS

|                                   |          |
|-----------------------------------|----------|
| A. PRECIPITATION RATE =           | 4        |
| B. $P_{100,6\text{ HR}} = P_{60}$ | 2.90 IN  |
| C. $P_{100,6\text{ HR}} = P_{60}$ | 11.68057 |
| TOTAL PROJECT AREA ( $A_T$ ) =    | 0.27 AC  |

### D. LAND TREATMENTS

| TREATMENT | AREA (SF/AC) | %  |
|-----------|--------------|----|
| A         |              |    |
| B         |              |    |
| C         | 4,680 SF     | 40 |
|           | 0.11 AC      |    |
| D         | 7,000 SF     | 60 |
|           | 0.16 AC      |    |

| TREATMENT | AREA (SF/AC) | %  |
|-----------|--------------|----|
| A         |              |    |
| B         |              |    |
| C         | 3,900 SF     | 33 |
|           | 0.09 AC      |    |
| D         | 7,780 SF     | 67 |
|           | 0.18 AC      |    |

### II. HYDROLOGY

#### A. EXISTING CONDITION 100 YEAR - TOTAL PROJECT SITE

|  |                         |
|--|-------------------------|
| 1. 100-YR STORM  |                         |
| a. VOLUME  |                         |
| $E_{100} = (E_{A1} + E_{A2} + E_{C1} + E_{C2}) / A_T$                          |                         |
| $E_{100} = (0.80^*0.00) + (1.08^*0.00) + (1.46^*0.11) + (2.64^*0.16) / 0.27 =$ | 2.17 IN                 |
| $V_{100,6\text{ HR}} = (E_{100} / 12) A_T =$                                   | 0.0485 AC-FT = 2,110 CF |
| b. PEAK DISCHARGE  |                         |
| $Q_p = Q_{100} A_A + Q_{100} A_B + Q_{100} A_C + Q_{100} A_D$                  |                         |
| $= 2.20^*0.00 + (2.92^*0.00) + (3.73^*0.11) + (5.25^*0.16) =$                  | $Q_p = 1.2\text{ CFS}$  |

#### B. DEVELOPED CONDITION - TOTAL PROJECT SITE

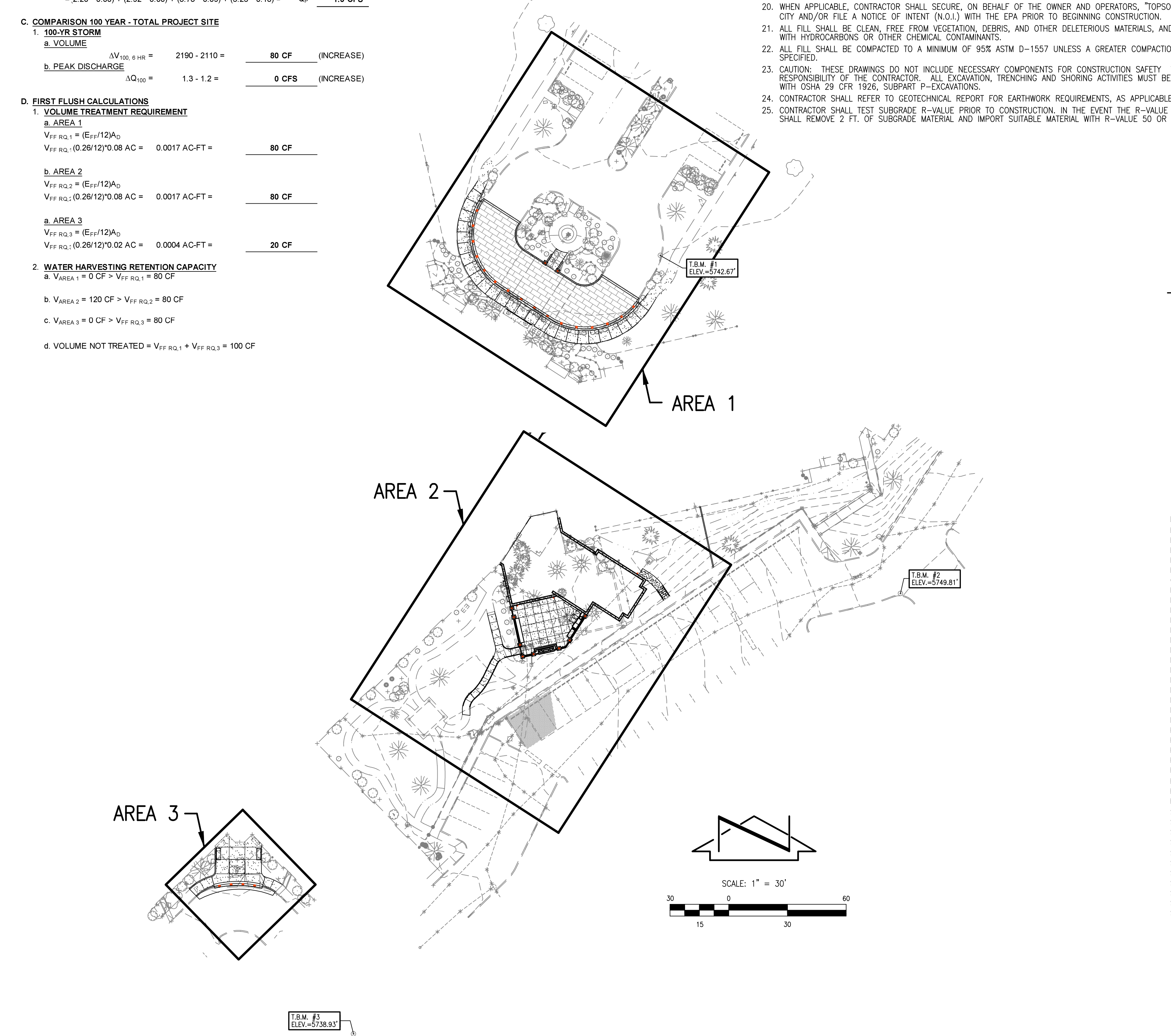
|  |                         |
|--|-------------------------|
| 1. 100-YR STORM  |                         |
| a. VOLUME  |                         |
| $E_{100} = (E_{A1} + E_{A2} + E_{C1} + E_{C2}) / A_T$                          |                         |
| $E_{100} = (0.80^*0.00) + (1.08^*0.00) + (1.46^*0.09) + (2.64^*0.16) / 0.27 =$ | 2.25 IN                 |
| $V_{100,6\text{ HR}} = (E_{100} / 12) A_T =$                                   | 0.0503 AC-FT = 2,190 CF |
| b. PEAK DISCHARGE  |                         |
| $Q_p = Q_{100} A_A + Q_{100} A_B + Q_{100} A_C + Q_{100} A_D$                  |                         |
| $= 2.20^*0.00 + (2.92^*0.00) + (3.73^*0.09) + (5.25^*0.18) =$                  | $Q_p = 1.3\text{ CFS}$  |

#### C. COMPARISON 100 YEAR - TOTAL PROJECT SITE

|                                |                                |
|--------------------------------|--------------------------------|
| 1. 100-YR STORM                |                                |
| a. VOLUME                      |                                |
| $\Delta V_{100,6\text{ HR}} =$ | 2190 - 2110 = 80 CF (INCREASE) |
| b. PEAK DISCHARGE              |                                |
| $\Delta Q_{100} =$             | 1.3 - 1.2 = 0 CFS (INCREASE)   |

#### D. FIRST FLUSH CALCULATIONS

|   |                      |
|---|----------------------|
| 1. VOLUME TREATMENT REQUIREMENT   |                      |
| a. AREA 1   |                      |
| $V_{FF\text{ RQ},1} = (E_{FF} / 12) A_{A1}$                                       |                      |
| $V_{FF\text{ RQ},1} = (0.26 / 12)^*0.08\text{ AC} =$                              | 0.0017 AC-FT = 80 CF |
| b. AREA 2   |                      |
| $V_{FF\text{ RQ},2} = (E_{FF} / 12) A_{A2}$                                       |                      |
| $V_{FF\text{ RQ},2} = (0.26 / 12)^*0.08\text{ AC} =$                              | 0.0017 AC-FT = 80 CF |
| c. AREA 3   |                      |
| $V_{FF\text{ RQ},3} = (E_{FF} / 12) A_{A3}$                                       |                      |
| $V_{FF\text{ RQ},3} = (0.26 / 12)^*0.02\text{ AC} =$                              | 0.0004 AC-FT = 20 CF |
| 2. WATER HARVESTING RETENTION CAPACITY  |                      |
| a. $V_{AREA,1} = 0\text{ CF} > V_{FF\text{ RQ},1} = 80\text{ CF}$                 |                      |
| b. $V_{AREA,2} = 120\text{ CF} > V_{FF\text{ RQ},2} = 80\text{ CF}$               |                      |
| c. $V_{AREA,3} = 0\text{ CF} > V_{FF\text{ RQ},3} = 80\text{ CF}$                 |                      |
| d. VOLUME NOT TREATED = $V_{FF\text{ RQ},1} + V_{FF\text{ RQ},3} = 100\text{ CF}$ |                      |



## GENERAL NOTES:

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1987, PUBLISHED BY THE NEW MEXICO CHAPTER AMERICAN PUBLIC WORKS ASSOCIATION. (REVISED 12/06)
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 811, FOR DESIGNATION (LINE-SPOTTING) OF EXISTING PUBLIC UTILITIES.
- UTILITY INFORMATION SHOWN HEREON IS BASED UPON ONSITE SURFACE EVIDENCE, REVIEW OF AVAILABLE OWNER RECORD DRAWINGS AND UTILITY LINE-SPOTS PROVIDED BY HIGH MESA CONSULTING GROUP (2017.017.1). IN ADDITION, UTILITY LINE-SPOTS WERE REQUESTED VIA THE NEW MEXICO ONE CALL SERVICE (TICKET NO. 17MA220347). UTILITY LINES THAT APPEAR ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE LOCATED, 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.
- SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED AREA IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- CONTRACTOR SHALL NOTIFY THE SURVEYOR NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE SURVEYOR MAY TAKE NECESSARY MEASURES TO ENSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE SURVEYOR AND SHALL NOTIFY THE SURVEYOR AND ADJUST THE MONUMENTS, IF NECESSARY, REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED.
- IF THE REMOVAL OF EXISTING CURB AND GUTTER, SIDEWALK, AND/OR PAVING IS REQUIRED, THE CONTRACTOR SHALL SAWCUT AND/OR REMOVE TO THE NEAREST JOINT. WHEN ABUTTING NEW PAVEMENT TO EXISTING, THE CONTRACTOR SHALL CUT BACK THE EXISTING PAVING TO A STRAIGHT LINE IN ORDER TO REMOVE ANY BROKEN OR CRACKED PAVEMENT. CURB AND GUTTER AND/OR PAVEMENT SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THIS CONTRACT AND WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- A DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL (CONTAMINATED OR OTHERWISE), ASPHALTIC PAVING, CONCRETE PAVING, ETC. SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE REGULATIONS. ALL COSTS INCURRED IN OBTAINING A DISPOSAL SITE AND IN HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
- A BORROW SITE FOR IMPORT MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE REGULATIONS. ALL COSTS INCURRED IN OBTAINING A BORROW SITE AND IN HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFELY OBTAINING THE REQUIRED COMPACTION. THE CONTRACTOR SHALL SELECT AND USE METHODS WHICH SHALL NOT BE INJURIOUS OR DAMAGING TO THE EXISTING FACILITIES AND STRUCTURES WHICH SURROUND THE WORK AREAS.
- THE CONTRACTOR SHALL CONFINE HIS WORK WITHIN THE CONSTRUCTION LIMITS IN ORDER TO PRESERVE THE EXISTING IMPROVEMENTS AND SO AS NOT TO INTERFERE WITH THE OPERATIONS OF THE EXISTING FACILITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING APPROPRIATE MEANS AND METHODS TO EXCAVATE AND TRENCH AND/OR INSTALL PIPE SO AS TO NOT EXCEED RIGHT-OF-WAY OR EASEMENT LIMITS, AND SO AS NOT TO INTERFERE WITH OTHER UTILITIES OR IMPROVEMENTS. THIS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT SHALL BE MADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, SUPPORTING AND REPLACING, IF DAMAGED, ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
- ALL DIMENSIONS AND RADII OF CURB, CURB RETURNS, AND WALLS ARE SHOWN TO THE FACE OF CURB AND/OR WALL.
- THE CONTRACTOR SHALL NOTIFY THE OWNER 48 HOURS PRIOR TO STRIPING SO THAT LAYOUT CAN BE VERIFIED.
- 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 CONTRACTING THE ENGINEER AS REQUIRED ABOVE.
- WHEN APPLICABLE, CONTRACTOR SHALL SECURE, ON BEHALF OF THE OWNER AND OPERATORS, "TOPSOIL DISTURBANCE PERMIT" FROM THE CITY AND/OR FILE A NOTICE OF INTENT (N.O.I.) WITH THE EPA PRIOR TO BEGINNING CONSTRUCTION.
- ALL FILL SHALL BE CLEAN, FREE FROM VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS, AND SHALL NOT BE CONTAMINATED WITH HYDROCARBONS OR OTHER CHEMICAL CONTAMINANTS.
- ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% ASTM D-1557 UNLESS A GREATER COMPACTION REQUIREMENT IS OTHERWISE SPECIFIED.
- CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926 SUBPART.
- CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR EARTHWORK REQUIREMENTS, AS APPLICABLE.
- CONTRACTOR SHALL TEST SUBGRADE R-VALUE PRIOR TO CONSTRUCTION. IN THE EVENT THE R-VALUE IS LESS THAN 50, CONTRACTOR SHALL REMOVE 2 FT. OF SUBGRADE MATERIAL AND IMPORT SUITABLE MATERIAL WITH R-VALUE 50 OR GREATER.

## LEGEND

|        |                                     |      |                                     |
|--------|-------------------------------------|------|-------------------------------------|
| ADO    | AUTOMATIC DOOR OPENER               | SWD  | OPENING UNDER SIDEWALK FOR DRAINAGE |
| AL     | AREA LIGHT                          | TA   | TOP OF ASPHALT                      |
| AP     | ASPHALT PAVEMENT                    | TC   | TOP OF CURB                         |
| BOH    | BUILDING OVERHANG                   | TCO  | TOP OF CONCRETE                     |
| BSW    | BRICK SIDEWALK                      | TW   | TOP OF WALL                         |
| CB     | CONCRETE BENCH                      | TYP  | TYPICAL                             |
| CF     | LANDSCAPING CRUSHER FINES           | W/PM | WATER LINE BY PAINT MARK            |
| CHC    | CONCRETE HEADER CURB                | WB   | WOOD BENCH                          |
| CLD    | CENTERLINE DOOR                     | WCR  | CONCRETE WHEELCHAIR RAMP            |
| CLDD   | CENTERLINE DOUBLE DOOR              | WFT  | LANDSCAPING WATER FOUNTAIN          |
| CND    | ELECTRIC CONDUIT                    | WG   | WOOD GATE                           |
| CO     | CLEANOUT                            | WF   | WROUGHT IRON FENCE                  |
| CONC   | CONCRETE                            | WVB  | WATER VALVE BOX                     |
| COP    | CONCRETE CURB OPENING               |      |                                     |
| CR     | CONCRETE RAMP                       | 1.0' | TREE TRUNK DIAMETER                 |
| CRD    | CONCRETE ROUNDOWN                   |      |                                     |
| CRPW   | CONCRETE RETAINING WALL             |      |                                     |
| CS     | CONCRETE STEPS                      |      | DECIDUOUS TREE                      |
| CSW    | CONCRETE SIDEWALK                   |      |                                     |
| CVC    | CONCRETE CURB                       |      | SMALL DECIDUOUS TREE                |
| CW     | CONCRETE WALL                       |      |                                     |
| DCO    | DOUBLE CLEANOUT                     |      | CONIFEROUS TREE                     |
| DOG    | DOG SCULPTURE                       |      |                                     |
| E/PM   | ELECTRIC LINE BY PAINT MARK         |      |                                     |
| EJB    | ELECTRIC JUNCTION BOX               |      | SMALL GROUP OF TREES                |
| EO     | ELECTRIC OUTLET                     |      |                                     |
| FL     | FLAG POLE                           |      | SHRUB                               |
| GRV    | LANDSCAPING GRAVEL                  |      | SMALL SHRUB                         |
| HCS    | HANDICAPPED PARKING SIGN            |      | YUCCA                               |
| ICT    | IRRIGATION CONTROL TIMER            |      | LANDSCAPING BOULDER                 |
| INV    | PIPE INVERT                         |      | YUCCA                               |
| IRB    | IRRIGATION VALVE BOX                |      |                                     |
| LSO    | LANDSCAPING DIVIDER                 |      |                                     |
| MB     | METAL BENCH                         |      |                                     |
| MBC    | METAL BUILDING COLUMN               |      |                                     |
| MF     | METAL FENCE                         |      |                                     |
| MG     | METAL GATE                          |      |                                     |
| MH     | MANHOLE                             |      |                                     |
| MHR    | METAL HAND RAIL                     |      |                                     |
| MIL    | METAL LIGHT POLE WITH CONCRETE BASE |      |                                     |
| MTC    | METAL TRASH CAN                     |      |                                     |
| MTS    | METAL SIGN                          |      |                                     |
| PB     | CONCRETE WHEEL STOP                 |      |                                     |
| PI     | PAINTED PARKING LOT ISLAND          |      |                                     |
| PLB    | PLASTIC BENCH                       |      |                                     |
| PVC    | POLYVINYL CHLORIDE PIPE             |      |                                     |
| RD     | BUILDING ROOF DRAIN                 |      |                                     |
| RD/SP  | ROOF DRAIN WITH CONCRETE SPLASH PAD |      |                                     |
| ROW    | ROW OF CONCRETE WHEEL STOPS         |      |                                     |
| RR     | LANDSCAPING RIVER ROCK              |      |                                     |
| SAS    | SANITARY SEWER                      |      |                                     |
| SAS/PM | SANITARY SEWER LINE BY PAINT MARK   |      |                                     |
| SB     | ASPHALT SPEED BUMP                  |      |                                     |
| SBC    | STUCCOED BUILDING CORNER            |      |                                     |
| SD/PM  | STORM DRAIN BY PAINT MARK           |      |                                     |
| SDI    | STORM DRAIN INLET                   |      |                                     |
| SOP    | STEEL GUARD POST                    |      |                                     |
| SNW    | STONE WALL                          |      |                                     |
| SW     | STUCCOED WALL                       |      |                                     |
| SW     | SIDEWALK                            |      |                                     |
| SWC    | SIDEWALK CULVERT                    |      |                                     |

2017.017.3/4

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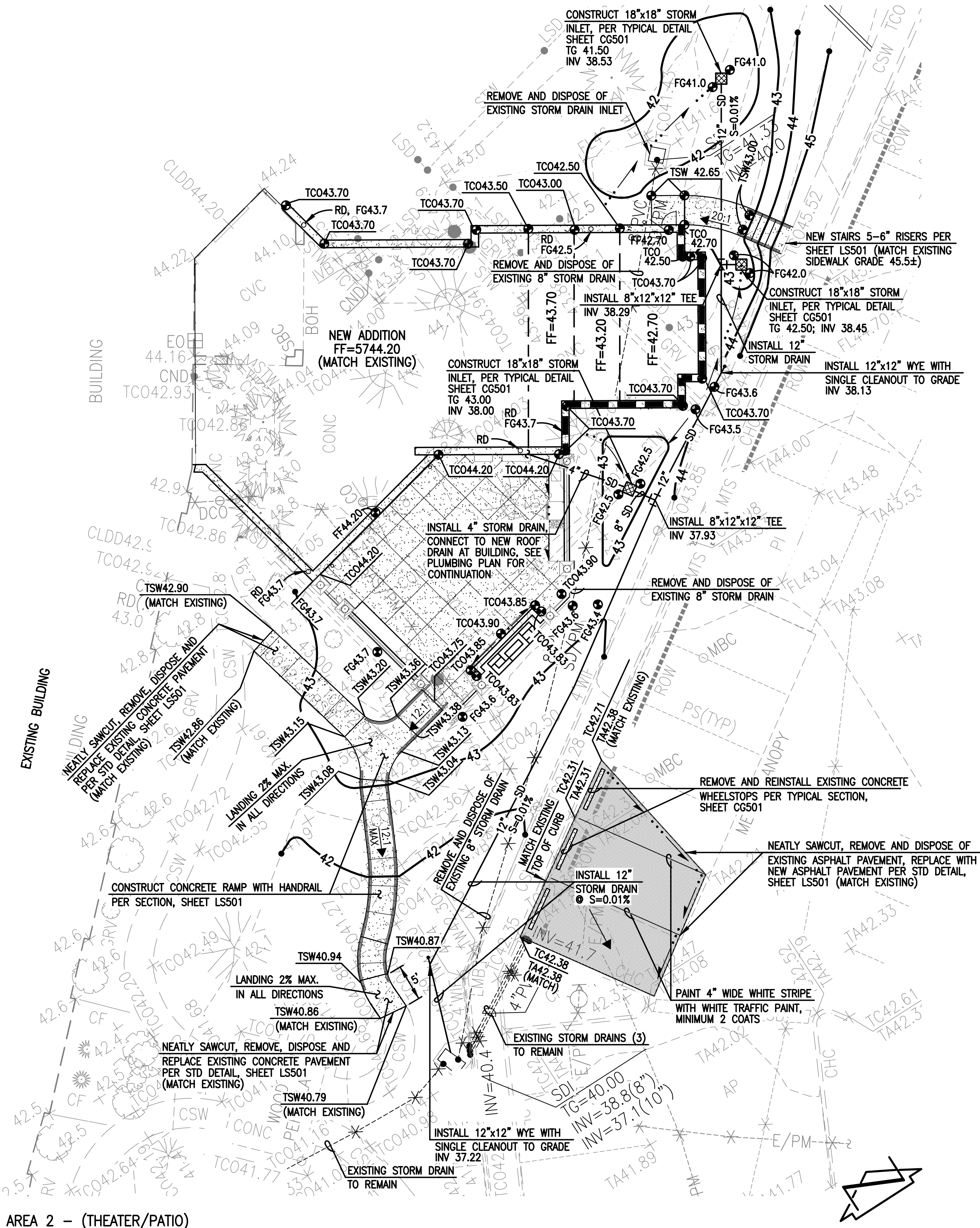
Fax: 602.744.3679



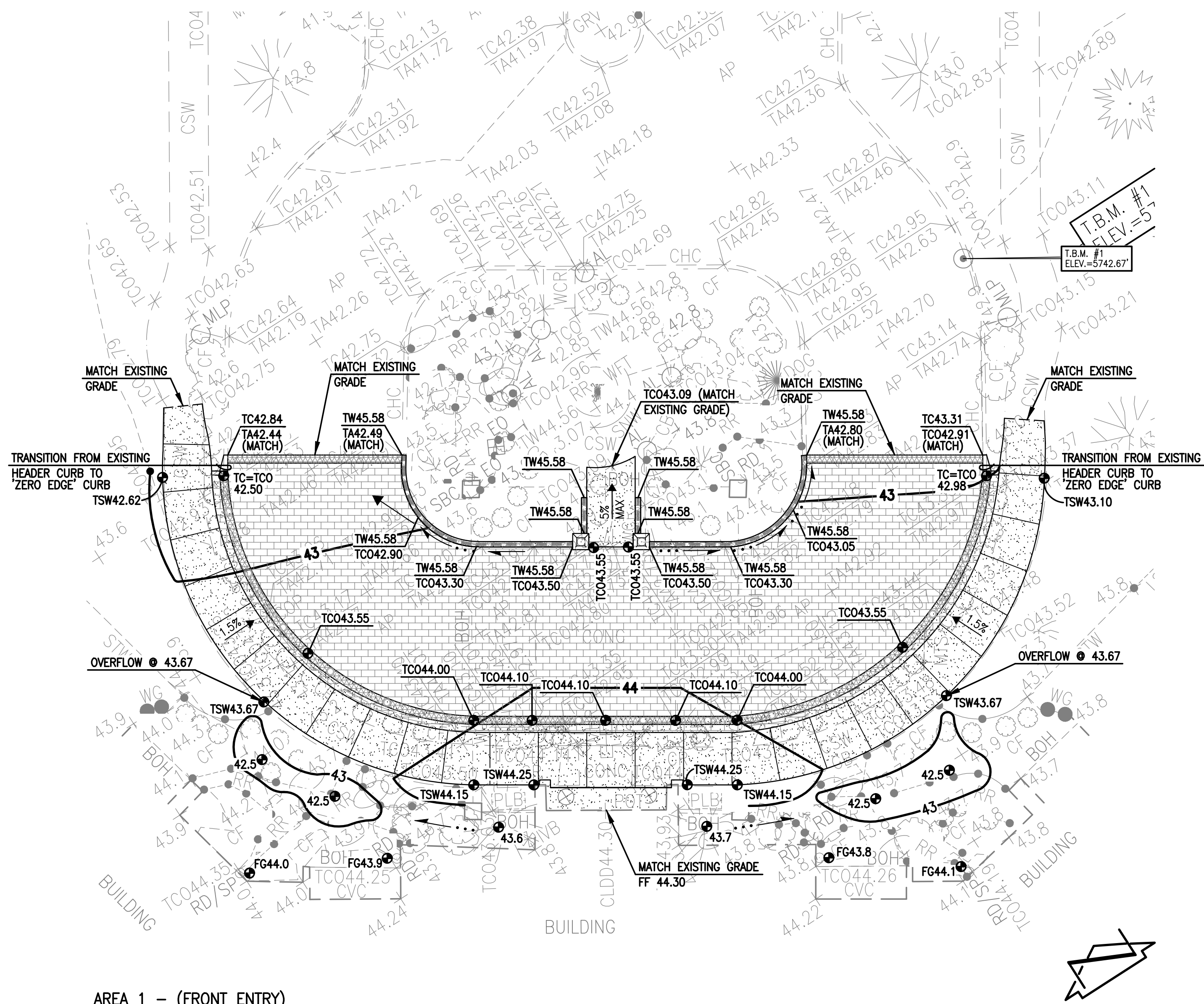
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**NOTE:**  
THIS IS NOT A BOUNDARY SURVEY. DATA IS SHOWN FOR ORIENTATION ONLY.  
THE TOPOGRAPHIC INFORMATION DEPICTED HEREON IS BASED UPON THE  
"PARTIAL TOPOGRAPHICAL AND UTILITY SURVEY" PREPARED BY HIGH MESA  
CONSULTING GROUP, NMPS NO. 11184, DATED 04/11/2017 (2017.017.2).

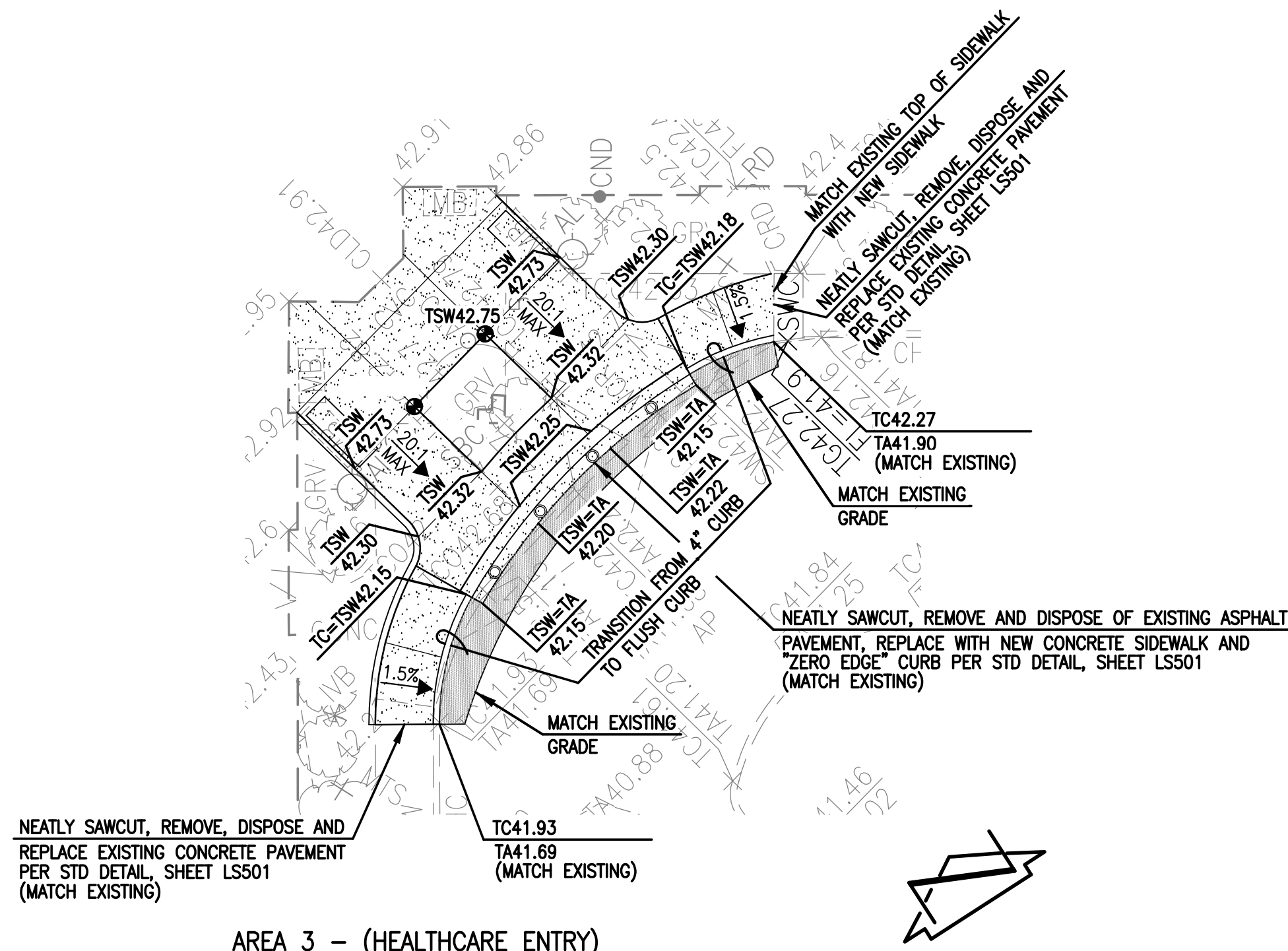
**AREA 2 - (THEATER/PATIO)**  
SCALE: 1" = 10'



**AREA 1 - (FRONT ENTRY)**  
SCALE: 1" = 10'



**AREA 3 - (HEALTHCARE ENTRY)**  
SCALE: 1" = 10'



**GRADING LEGEND:**

|         |   |
|---------|---|
| INV     | INVERT  |
| FG      | FINISH GRADE  |
| RD      | PROPOSED ROOF DRAIN   |
| TA      | TOP OF ASPHALT PAVEMENT   |
| TC      | TOP OF CURB   |
| TCO     | TOP OF CONCRETE/BRICK PAVERS  |
| TG      | TOP OF GRATE  |
| TSO     | TOP OF SIDEWALK   |
| + 20.05 | EXISTING SPOT ELEVATION   |
| 14.00   | PROPOSED SPOT ELEVATION   |
| ---     | EXISTING FLOWLINE   |
| ---     | PROPOSED FLOWLINE   |
| ---     | EXISTING CONTOUR  |
| ---     | PROPOSED CONTOUR  |
| ---     | EXISTING DIRECTION OF FLOW  |
| ---     | PROPOSED DIRECTION OF FLOW  |
| ---     | RIGHT OF WAY LINE   |
| ---     | PUBLIC EASEMENT LINE  |
| ---     | HIGH POINT / DIVIDE   |
| ---     | PROPOSED CONCRETE   |
| ---     | PROPOSED ASPHALT PAVING   |
| ---     | PROPOSED BRICK PAVERS   |
| ---     | PROPOSED CURB WALL (FREE STANDING)  |
| ---     | PROPOSED "ZERO EDGE" CURB   |
| ---     | PORTION OF BUILDING WHERE EXTERIOR GRADE IS ABOVE FF: SEE STRUCTURAL PLAN FOR WALL/FOUNDATION REQUIREMENTS. |

**CONSTRUCTION NOTES:**

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 811, FOR DESIGNATION (LINE-SPOTTING) OF EXISTING UTILITIES.
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. UTILITY INFORMATION SHOWN HEREON IS BASED UPON ON-SITE SURFACE EVIDENCE, REVIEW OF AVAILABLE OWNER RECORD DRAWINGS AND UTILITY LINE-SPOTS PROVIDED BY HIGH MESA CONSULTING GROUP (2017.017.1). IN ADDITION, UTILITY LINE-SPOTS WERE REQUESTED VIA THE NEW MEXICO ONE CALL SERVICE (TICKET NO. 17M4220347). UTILITY LINES THAT APPEAR ON THESE DRAWINGS 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.
6. THE DESIGN OF PLANTERS AND LANDSCAPED AREAS IS NOT PART OF THIS PLAN. ALL PLANTERS AND LANDSCAPED AREAS ADJACENT TO THE BUILDING(S) SHALL BE PROVIDED WITH POSITIVE DRAINAGE TO AVOID ANY PONDING ADJACENT TO THE STRUCTURE. FOR CONSTRUCTION DETAILS, REFER TO LANDSCAPING PLAN.
7. THE GRADES INDICATED ON THIS PLAN ARE FINISHED GRADES UNLESS OTHERWISE INDICATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING SUBGRADE AT ELEVATIONS THAT SHALL ACCOMMODATE PROPOSED IMPROVEMENTS AS INDICATED ON THE PLANS INCLUDING, BUT NOT LIMITED TO, SURFACE DRAINAGE STRUCTURES, PAVING AND LANDSCAPING SURFACING.

**STORM PIPE CONSTRUCTION NOTES:**

1. STORM DRAIN PIPING SHALL BE PVC SDR-35 OR HDPE (SMOOTH INTERIOR N-12); ALL PIPING SHALL BE SAME MATERIAL TYPE.
2. HDPE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M 294 TYPE S FOR HDPE STORM DRAIN SYSTEMS.
3. JOINTS SHALL BE WATERTIGHT IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D3212. THE SPIGOTS SHALL HAVE 0-RING GASKETS MEETING THE REQUIREMENTS OF ASTM F 477.
4. THE CONTRACTOR'S PROJECT SUPERINTENDENT AND FOREMAN OF THE PIPE-LAYING CREW SHALL SUBMIT TO THE OWNER A CERTIFICATE INDICATING COMPLETION OF AN ON-LINE TRAINING PROGRAM OFFERED BY ADS (ADS-PIPE.COM) OR OTHER MANUFACTURER AS APPROVED BY THE OWNER.
5. INSTALLATION SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS.
6. ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 701 OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
7. THE PIPE SHALL BE BEDDED IN A FOUNDATION OF COMPACTED GRANULAR MATERIAL THAT IS FREE OF ORGANIC MATTER, CLAY LUMPS, AND OTHER DELETERIOUS MATTER. THIS MATERIAL SHALL EXTEND A MINIMUM OF 6 INCHES BELOW THE OUTERMOST CORRUGATIONS AND BE USED FOR BACKFILL UP TO A MINIMUM OF 1 FOOT ABOVE THE TOP OF PIPE. UNTIL A MINIMUM COVER OF 1 FOOT IS ATTAINED, ONLY HAND OPERATED TAMPING EQUIPMENT MAY BE USED IN THE TRENCH PRISM OVER THE PIPE.
8. CONCRETE STRUCTURE CONNECTIONS FOR HDPE PIPE WILL REQUIRE THE USE OF A WATER STOP THAT MEETS THE PHYSICAL PROPERTIES OF ASTM C923. INSTALLATION SHALL BE PER MANUFACTURER'S SPECIFICATIONS.

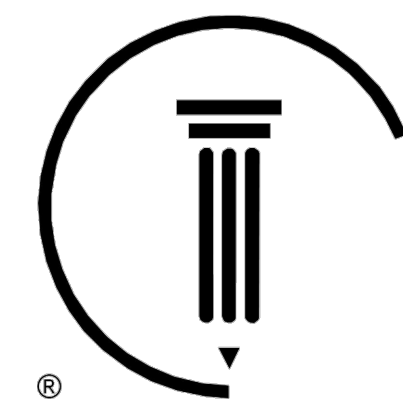
**PROJECT BENCHMARK**

AN AGRS 3 1/4" ALUMINUM DISK STAMPED "16-E21 1995" SET FLUSH IN TOP OF CURB, APPROXIMATELY 115 FEET WEST OF THE INTERSECTION OF ACADEMY ROAD N.E. AND ENTRANCE TO 10500 ACADEMY ROAD N.E.  
LATITUDE = 35°09'14.48109" NORTH  
LONGITUDE = 106°31'19.01656" WEST  
ELEVATION = 5738.153 FEET (NAVD 88)

**TEMPORARY BENCHMARK #1 (T.B.M.)**

A WAG NAIL WITH WASHER SET IN AN ASPHALT DRIVE LANE, LOCATED IN THE NORTH PORTION OF THE SITE, AS SHOWN ON THIS SHEET (AREA 1).  
ELEVATION = 5742.67 FEET (NAVD 88)

REFER TO SHEET CG101 FOR TBM #2 AND TBM #3 LOCATIONS



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06/25/2018

Revisions  
No. Date Description

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Date: 06/20/18  
PIC / AIC: NAH  
Drawn By: SCOU.Y.R.  
Checked By: G.M.  
Comm. No.: 16-0282

Project Title

Renovations and addition to the Montebello on Academy

Sheet Title  
GRADING PLAN  
AREAS 1-3

Sheet Number

2017.017.3/4

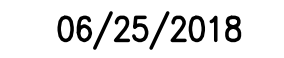
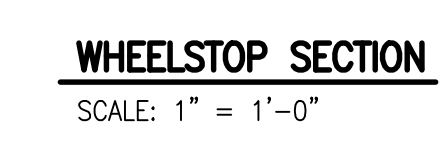
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CG102





|                                       |           |
|---------------------------------------|-----------|
| Document Phase: CONSTRUCTION DOCUMENT |           |
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Renovations and addition to the Montebello on Academy

CG501

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