**Weighted E Method**

| Basin | Area (sf) | Area (acres) | Treatment A % | Treatment A (acres) | Treatment B % | Treatment B (acres) | Treatment C % | Treatment C (acres) | Treatment D % | Treatment D (acres) | 100-Year, 6-hr. Weighted E (ac-ft) | 100-Year, 6-hr. Volume (ac-ft) | 100-Year, 6-hr. Flow cfs | 100 yr 24-HOUR Volume (ac-ft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HISTORICAL | 30976.00 | 0.711 | 0% | 0 | 38% | 0.270 | 30% | 0.213 | 34% | 0.242 | 1.857 | 0.110 | 2.62 | 0.126 |
| PROPOSED | 30976.00 | 0.711 | 0% | 0 | 38% | 0.270 | 32% | 0.228 | 32% | 0.228 | 1.814 | 0.107 | 2.60 | 0.123 |

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

water quality required 215 cubic feet
ponding provided

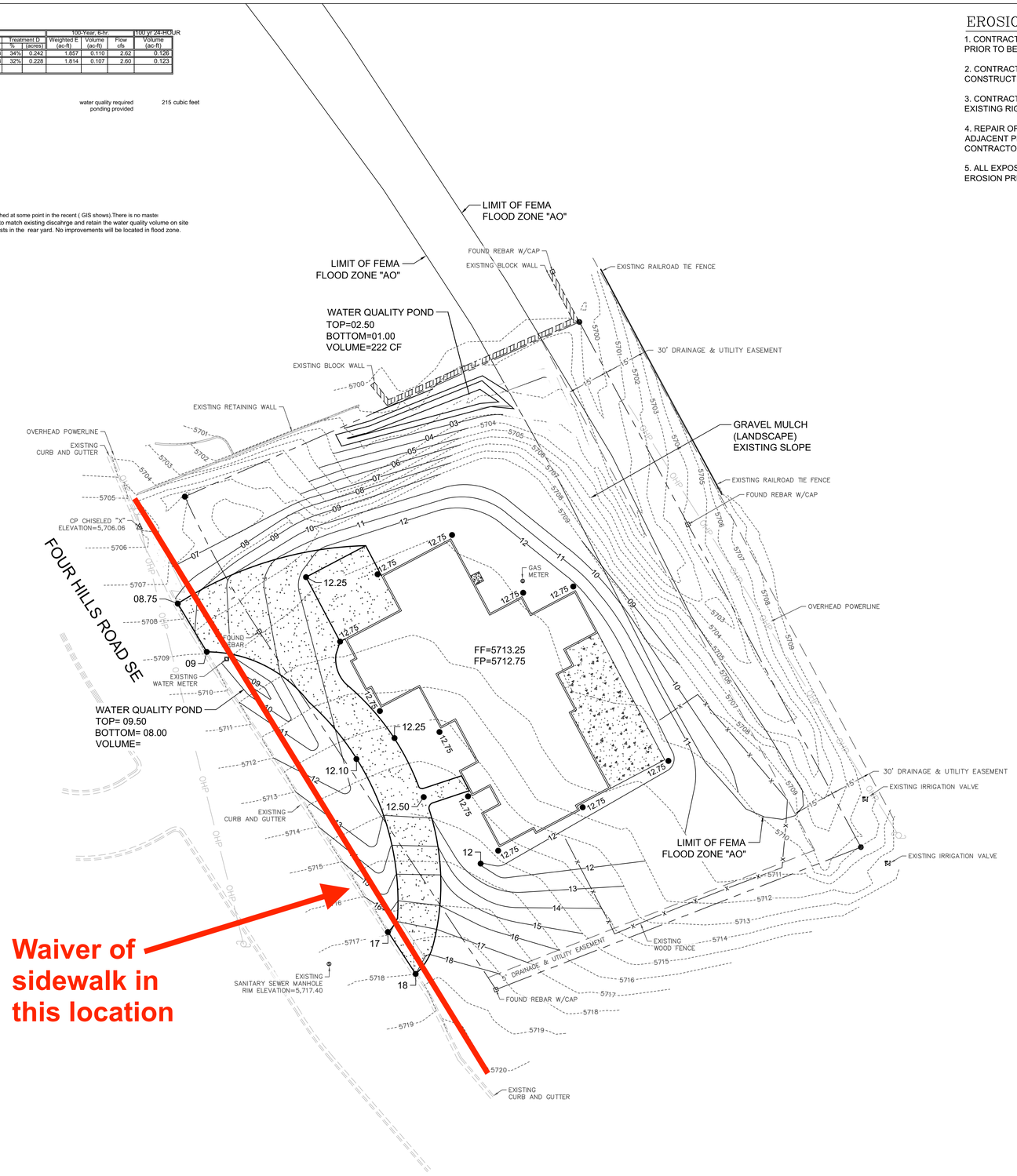
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm(zone4)

Ea= 0.76 Qa= 2.09
Eb= 0.95 Qb= 2.73
Ec= 1.2 Qc= 3.41
Ed= 3.34 Qd= 4.78

| Developed Conditons | | | TOTAL VOLUME GENERATED |
|---|---|---|---|
| DISCHARGE PROPOSED | 2.60 | CFS | 5343 CF |
| EXISTING DISCHARGE | 2.62 | CFS | 5495 CF |
| DIFFERENCE | -0.02 | CFS | -151.78 CF |

This site is an redevelopment of a previously developed lot. The existing house was demolished at some point in the recent ( GIS shows).There is no master drainage plan for this area, all lots currently free discharge. The drainage solution is to match existing discahrge and retain the water quality volume on site The ponds will overflow to the historical out fall. An existing flood zone AO-1 foot exists in the rear yard. No improvements will be located in flood zone. A flood plain permit will be required




## EROSION CONTROL NOTES:

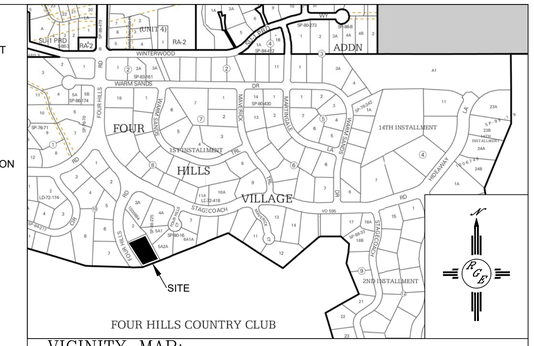
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.

3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.




## VICINITY MAP:

## FIRM MAP:

## LEGAL DESCRIPTION:

LOT 1, BLOCK 9, FOUR HILLS VILLAGE
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

## NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

2. ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.

3. ANY PERIMETER WALLS MUST BE PERMITED SEPARATELY ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.

4. SURVEY INFORMATION PROVIDED BY ANTHONY L. HARRIS, N.M.P.S.#11463 HARRIS SURVEYING, INC. USING NAVD DATUM 1988.

5. A PAD ELEVATION CERTIFICATION SHALL BE REQUIRED PRIOR TO RELEASE OF BUILDING PERMIT.

## LEGEND

| | |
|---|---|
| ----------xxxx---------- | EXISTING CONTOUR |
| ----------xxxx---------- | EXISTING INDEX CONTOUR |
| ————xxxx———— | PROPOSED CONTOUR |
| ————xxxx———— | PROPOSED INDEX CONTOUR |
| • xxxx | EXISTING SPOT ELEVATION |
| ● xxxx | PROPOSED SPOT ELEVATION |
| ———————— | BOUNDARY |
| — — — — | ADJACENT BOUNDARY |
| ≡≡≡≡≡≡≡≡≡≡≡≡ | EXISTING CURB AND GUTTER |
| ←— — —← — — | PROPOSED EARTHEN SWALE |
| | PROPOSED CONCRETE |
| | PROPOSED COMPACTED EARTHEN BERM |

## CAUTION:

EXISTING UTILITIES ARE NOT SHOWN.
IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

N

20 10 0 10 20

SCALE: 1"=20'

I DAVID SOULE, HAVE PERSONALLY INSPECTED THE PROPERTY ON _____. NO EARTHWORK HAS BEEN PERFORMED AND THE SITE IS CONSISTENT WITH THE TOPO SHOWN.

DAVID SOULE P.E. #14522 DATE

| | | |
|---|---|---|
| ENGINEER'S SEAL | LOT 1, BLOCK 9, FOUR HILLS VILLAGE 908 FOUR HILLS ROAD SE | DRAWN BY MM |
| DAVID SOULE NEW MEXICO 14522 LICENSED PROFESSIONAL ENGINEER | GRADING AND DRAINAGE PLAN | DATE 11-28-2025 |
| | Rio Grande Engineering PO BOX 93924 ALBUQUERQUE, NM 87199 (505) 321-9099 | SHEET # C1 |
| DAVID SOULE P.E. #14522 | | JOB # |