

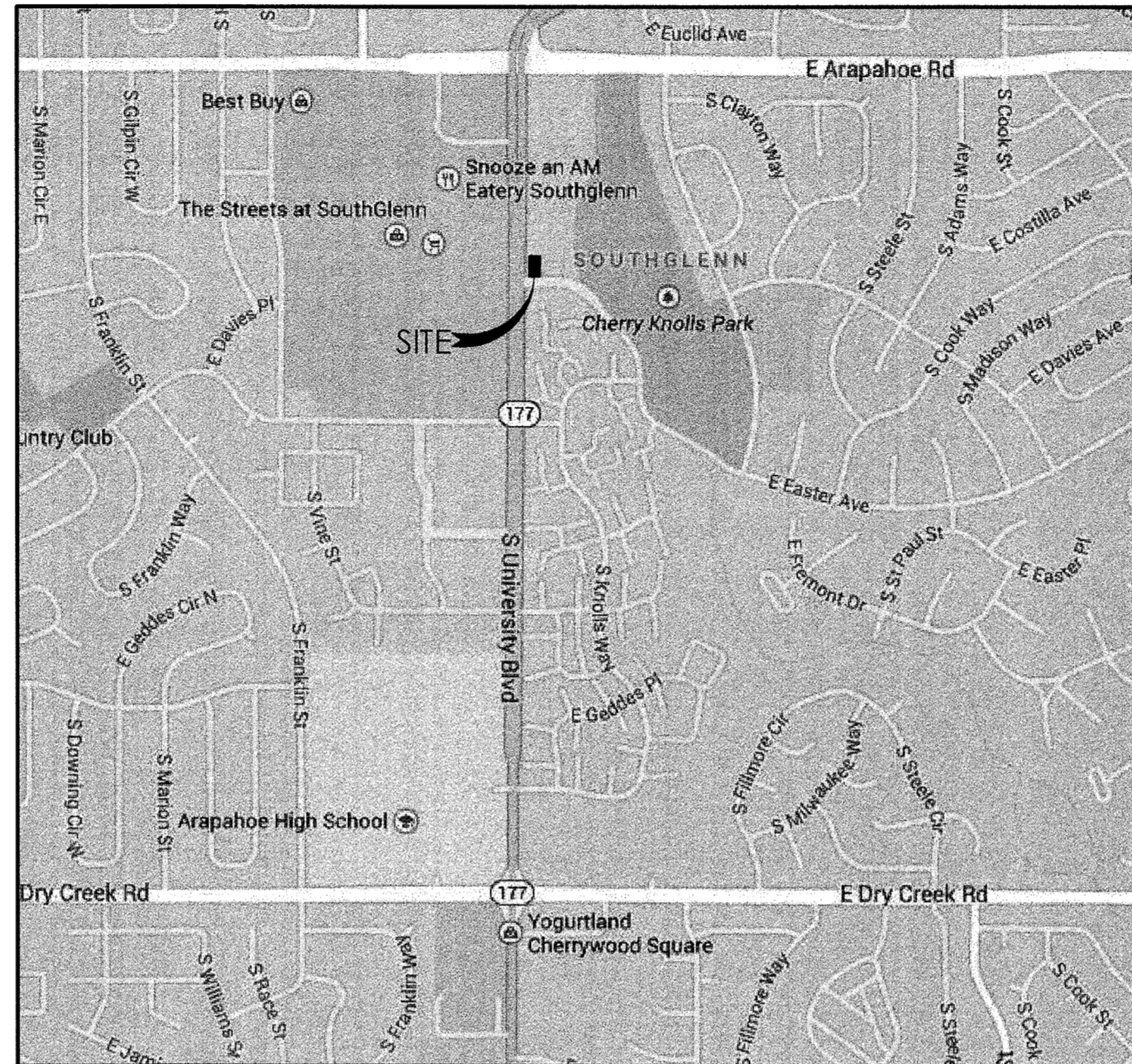
CHASE BANK AT CHERRY KNOLLS SHOPPING CENTER

A PORTION OF LOT 4, CHERRY KNOLLS SHOPPING CENTER
SITUATED IN THE NORTHWEST ONE-QUARTER OF SECTION 25
TOWNSHIP 5 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN
CITY OF CENTENNIAL, ARAPAHOE COUNTY, STATE OF COLORADO

Record Drawing

CITY OF CENTENNIAL STANDARD NOTES

- THE CITY ENGINEER STAMP AND SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE CITY OF CENTENNIAL COMMUNITY DEVELOPMENT DEPARTMENT HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH CITY OF CENTENNIAL SUBDIVISION REGULATIONS OR APPROVED VARIANCES TO THOSE REGULATIONS. THE CITY ENGINEER, THROUGH APPROVAL OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN THAT STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE OWNER AND DESIGN ENGINEER UNDERSTAND THAT IT IS THE POLICY AND PRACTICE OF THE CITY OF CENTENNIAL NOT TO ACCEPT LIABILITY FOR FACILITIES DESIGNED BY OTHERS. THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.
- EXCEPT WHERE OTHERWISE PROVIDED FOR IN THESE PLANS AND SPECIFICATIONS, ALL ROADWAY CONSTRUCTION SHALL CONFORM TO ARAPAHOE COUNTY "ROADWAY DESIGN AND CONSTRUCTION STANDARDS," LATEST REVISION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY. THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEERING INSPECTOR, 303-754-3362, A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. FOR INFORMATION, CONTACT UTILITY NOTIFICATION CENTER OF COLORADO (UNCC), 1-800-922-1987.
- THE CONTRACTOR SHALL HAVE ONE SIGNED COPY OF THE PLANS (APPROVED BY THE CITY OF CENTENNIAL), ONE COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAYING ALL FEES REQUIRED BY THE CONSTRUCTION PROPOSED IN THESE PLANS, REGARDLESS OF NOTIFICATION BY THE CITY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ON-SITE AND OFF-SITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NEEDED DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS EITHER ON-SITE OR OFF-SITE, THAT ARISE IN THE FIELD, WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY. THE COST TO RECTIFY ANY ADVERSE SITUATION TO MEET THE CITY STANDARDS AND SPECIFICATIONS SHALL BE BORNE SOLELY BY THE DEVELOPER.
- THE CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND THE DESIGN ENGINEER. THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER MUST OBTAIN THE WRITTEN PERMISSION OF THE ADJACENT PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE GRADING OR CONSTRUCTION.
- A PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CITY FOR APPROVAL WITH THE PERMIT APPLICATION. A STREET CUT OR PUBLIC IMPROVEMENTS CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN APPROVED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.
- CONCRETE SHALL NOT BE PLACED UNTIL THE FORMS HAVE BEEN INSPECTED AND A POUR SLIP ISSUED. POUR SLIPS WILL NOT BE ISSUED UNLESS THE CONTRACTOR HAS, AT THE JOB SITE, A COPY OF THE APPROVED PLANS BEARING THE SIGNATURE OF THE CITY ENGINEER. IF A CITY ENGINEERING INSPECTOR IS NOT AVAILABLE AFTER PROPER NOTICE OF CONSTRUCTION ACTIVITY HAS BEEN PROVIDED, THE PERMITTEE MAY COMMENCE WORK WITHOUT A POUR SLIP. HOWEVER, THE CITY RESERVES THE RIGHT NOT TO ACCEPT THE STRUCTURE IF SUBSEQUENT TESTING OR OBSERVATION REVEAL AN IMPROPER INSTALLATION.
- PAVING SHALL NOT START UNTIL A SOIL REPORT AND PAVEMENT DESIGN IS APPROVED BY THE CITY ENGINEERING INSPECTOR AND SUBGRADE COMPACTION TESTS ARE RECEIVED AND APPROVED BY THE CITY ENGINEER.
- STANDARD ARAPAHOE COUNTY CURB RAMP ARE TO BE CONSTRUCTED AT ALL CURB RETURNS, "T" INTERSECTIONS AND ALL OTHER DESIGNATED PEDESTRIAN ACCESS POINTS. ANY REQUIREMENTS OF TITLE II OF THE AMERICANS WITH DISABILITIES ACT (ADA) SHALL BE INCORPORATED IN RAMP CONSTRUCTION.
- ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.
- ALL ELEVATIONS ARE FLOWLINE UNLESS OTHERWISE NOTED.
- ALL ELEVATIONS ARE ON USGS (NGVD 29 VERTICAL DATUM), THE CONTRACTOR SHALL PRESERVE ALL SURVEY CONTROL. [RANGE POINT OR MONUMENT SHALL BE SHOWN ON CONSTRUCTION PLANS.]
- ALL SIGNS AND STRIPING SHALL COMPLY WITH CITY OF CENTENNIAL REQUIREMENTS.
- ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
- ALL WORK SHALL CONFORM TO ALL LOCAL, STATE, AND FEDERAL APPLICABLE LAWS AND REGULATIONS.
- ALL ESTIMATES OF QUANTITIES SHALL BE VERIFIED BY THE CONTRACTOR/SUBCONTRACTOR, WHO SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES AND PROVIDING THE WORK AND MATERIALS AS SHOWN ON THESE PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL, ALL SITE VISITORS, AND THE GENERAL PUBLIC WHO MAY BE AFFECTED BY THE CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO IMPROVEMENTS AND LANDSCAPING CAUSED BY CONSTRUCTION ACTIVITIES, TO EQUAL OR BETTER CONDITIONS.
- THE CONTRACTOR SHALL PRESERVE ALL LANDSCAPING NOT TO BE REMOVED FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESEEDING OR SODDING ALL AREAS DISTURBED BY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LANDSCAPING THE SITE IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN.
- CONSTRUCTION SHALL MEET ALL REQUIREMENTS OF THE APPROVED FINAL DEVELOPMENT PLAN AND LANDSCAPING PLAN. ANY PROPOSED CHANGES SHALL BE REFERRED TO THE CITY COMMUNITY DEVELOPMENT DEPARTMENT, WHO MAY REQUIRE REVISION AND RE-APPROVAL OF THE FINAL DEVELOPMENT PLAN.
- THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM WORK UNDER THIS CONTRACT TO AN APPROVED DUMP SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE DESIGN ENGINEER WITH A MARKED SET OF CONSTRUCTION DRAWINGS SHOWING ALL CHANGES MADE DURING CONSTRUCTION. THE AS-BUILT PLANS SHALL BE FORWARDED TO THE CITY ENGINEER.
- THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MUST BE PERFORMED BY THE UTILITY COMPANY'S FORCES.
- EXCEPT WHERE OTHERWISE PROVIDED FOR IN THESE PLANS AND SPECIFICATIONS, COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, SHALL APPLY.



VICINITY MAP
NOT TO SCALE

SHEET INDEX

| | |
|-------------------|--|
| C0.00 | COVER SHEET |
| C0.10 | PROJECT NOTES SHEET |
| C1.10 | DEMOLITION PLAN |
| C3.10 | SITE PLAN |
| C3.90 | OFF-CONSTRUCTION DETAILS |
| C3.91 | OFF-CONSTRUCTION DETAILS |
| C3.92 | OFF-CONSTRUCTION DETAILS |
| C4.10 | GRADING PLAN |
| C6.10 | OVERALL UTILITY PLAN |
| C7.10 | STORM SEWER PLAN AND PROFILE |
| C7.90 | UTILITY DETAILS |
| C7.91 | POROUS LANDSCAPE DETENTION PLAN |
| C7.92 | POROUS LANDSCAPE DETENTION DETAILS |
| C7.93 | BMP MATERIAL SPECIFICATIONS |
| C8.10 | LANDSCAPE PLAN |
| C8.90 | LANDSCAPE NOTES AND DETAILS |
| IR4.10 | IRRIGATION PLAN |
| IR4.90 | IRRIGATION DETAILS |
| IR4.91 | IRRIGATION DETAILS |

*THESE SHEETS NOT INCLUDED IN THIS PLAN SET FOR REVIEW BY THE CITY

LEGAL DESCRIPTION

A PARCEL OF LAND BEING A PORTION OF LOT 4, CHERRY KNOLLS SHOPPING CENTER RECORDED OCTOBER 20, 1986 AT RECEPTION NO. 2740321 IN THE OFFICE OF THE CLERK AND RECORDER FOR ARAPAHOE COUNTY, SITUATED IN THE NORTHWEST ONE-QUARTER OF SECTION 25, TOWNSHIP 5 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, CITY OF CENTENNIAL, COUNTY OF ARAPAHOE, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 4, SAID POINT ALSO BEING THE INTERSECTION OF THE EAST RIGHT-OF-WAY OF S. UNIVERSITY BLVD. AND THE NORTH RIGHT-OF-WAY OF E. EASTER AVE., AND CONSIDERING THE WEST LINE OF SAID LOT 4 TO BEAR N00°14'30"E WITH ALL BEARINGS HEREIN RELATIVE THERETO;
THENCE ALONG THE WEST LINE OF SAID LOT 4, SAID LINE ALSO BEING THE EAST RIGHT-OF-WAY OF SAID S. UNIVERSITY BLVD. N00°14'30"E, A DISTANCE OF 151.50 FEET;
THENCE S89°45'30"E, A DISTANCE OF 151.50 FEET;
THENCE S00°14'30"W, A DISTANCE OF 151.50 FEET TO THE SOUTH LINE OF SAID LOT 4;
THENCE ALONG THE SOUTH LINE OF SAID LOT 4, SAID LINE ALSO BEING THE NORTH RIGHT-OF-WAY OF SAID E. EASTER AVE. N89°45'30"W, A DISTANCE OF 151.50 FEET TO THE POINT OF BEGINNING.
CONTAINING 22,952 SQUARE FEET OR 0.527 ACRES, MORE OR LESS.

BENCHMARK

ARAPAHOE COUNTY VERTICAL CONTROL NETWORK NO. 52 (TWN: 2077-24-3; BENORGN: AC-86-12) AND IS AN ALUMINUM CAP SET AT THE BACK OF THE WALK AT THE SOUTHEAST CORNER OF PEAKVIEW AVE. AND UNIVERSITY BLVD., SET AT THE SOUTHWEST CORNER OF AN INLET BOX. INLET BOX IS AT THE EAST CURB RETURN ON PEAKVIEW, 47.8 FEET SOUTHWEST OF A FIRE HYDRANT.
ELEVATION = 5511.41' NGVD 29 VERTICAL DATUM (5514.438' NAVD 88)
NGVD 29 = NAVD 88 - 3.028'

BASIS OF BEARING

N 00°14'30" E BEING THE WEST LINE OF LOT 4, CHERRY KNOLLS SHOPPING CENTER.

ENGINEER'S CERTIFICATION

"I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS FOR CHASE BANK AT CHERRY KNOLLS SHOPPING CENTER WERE PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION) IN ACCORDANCE WITH THE REQUIREMENTS OF THE ARAPAHOE COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS AND THE CITY OF CENTENNIAL STORM WATER MANAGEMENT MANUAL."

TIFFANY D. WATSON, PE
REGISTERED PROFESSIONAL ENGINEER
STATE OF COLORADO NO. 40360



FOR AND ON BEHALF OF
POINT CONSULTING, LLC

CONTACTS:

DEVELOPER

JP MORGAN CHASE BANK, N.A.
10011 GRAVELLY LAKE DRIVE
LAKEWOOD, WA 98499
PHONE: (253) 305-5034
CONTACT: STEPHEN CARY

CITY OF CENTENNIAL

CITY OF CENTENNIAL
PHONE: (303) 754-3378
CONTACT: DEREK HOLCOMB

FIRE DEPARTMENT

SOUTH METRO FIRE RESCUE AUTHORITY
PHONE: (720) 989-2247
CONTACT: CHIP KERKHOVE

STORMWATER AUTHORITY

SOUTHEAST METRO STORMWATER AUTHORITY
PHONE: (303) 858-8844
CONTACT: TIFFANY CLARK, PE, CFM

CIVIL ENGINEER

POINT CONSULTING, LLC
8341 S. SANGRE DE CRISTO, SUITE 102
LITTLETON, CO 80127
PHONE: (720) 258-6836
CONTACT: TIFFANY D. WATSON, PE

LANDSCAPE ARCHITECT

POINT CONSULTING, LLC
8341 S. SANGRE DE CRISTO, SUITE 102
LITTLETON, CO 80127
PHONE: (720) 258-6836
CONTACT: JIM SHIPTON, RLA

SANITATION DISTRICT

SOUTH ARAPAHOE SANITATION DISTRICT
143 UNION BOULEVARD, SUITE 600
LAKEWOOD, COLORADO 80228
PHONE: (303) 985-3636
CONTACT: JODI VILLA, PE

Certification Block

RECORD DRAWINGS

Southeast Metro Stormwater Authority Stormwater Public Improvement Permit No. _____
Based upon review of and reliance on the field survey data and other pertinent data provided by Colorado Professional Land Surveyor No. _____ dated _____.

I hereby state that to the best of my knowledge, facilities shown on these drawings were constructed in substantial conformance with the approved Drainage Report and/or Construction Drawings. This statement is based only on review of field data and a final site investigation. I also understand that Southeast Metro Stormwater Authority has not verified the accuracy of this information and shall not be responsible for any errors or omissions which may be incorporated into these Record drawings.

(Engineer's name) _____ Date _____
Colorado Professional Engineer No. _____
(Seal)

CITY APPROVAL BLOCK

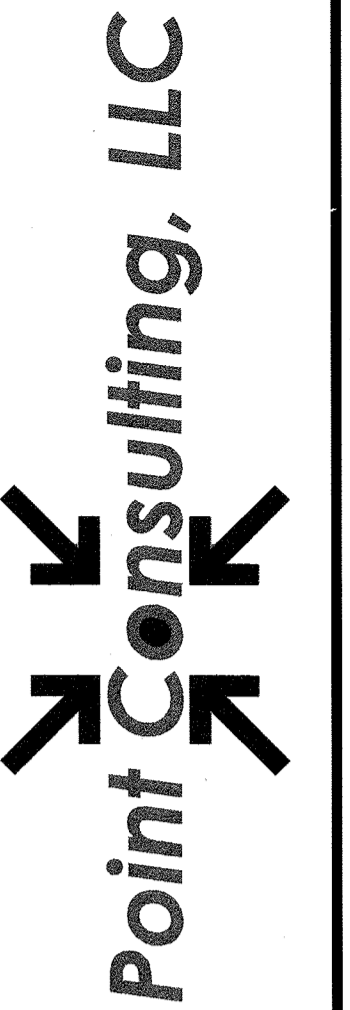


VALID ONLY IF FIRST PAGE IS SIGNED
REVIEW AND ACCEPTANCE OF CONSTRUCTION
PLANS AND SPECIFICATIONS

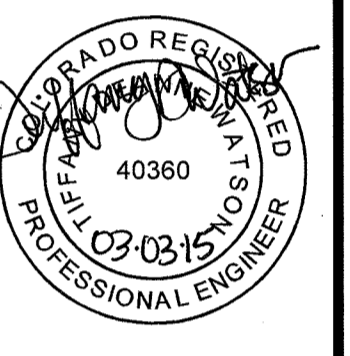
[Signature] 3/21/15

FOR USE AS CONSTRUCTION DOCUMENT ONLY
THIS ACCEPTANCE SHALL NOT BE CONSTRUED TO RELIEVE
THE REGISTERED PROFESSIONAL ENGINEER CERTIFYING
THESE PLANS FROM HIS RESPONSIBILITY AND ACCURACY
THEREOF. CITY OF CENTENNIAL MAKES ACCEPTANCE OF
THESE PLANS CONDITIONAL UPON THERE BEING NO
WARRANTY OR LIABILITY CONNECTED THERETH. THESE
PLANS ARE ACCEPTABLE FOR PERMIT APPLICATIONS FOR A
PERIOD OF ONE YEAR SUBSEQUENT TO THE ABOVE DATE.

ENGINEERING DIVISION APPROVAL BLOCK



8341 S SANGRE DE CRISTO
SUITE 102
LITTLETON, CO 80127
720-258-6836
www.pnt-llc.com
PLANNING | ENGINEERING
LANDSCAPE ARCHITECTURE
LAND SURVEYING



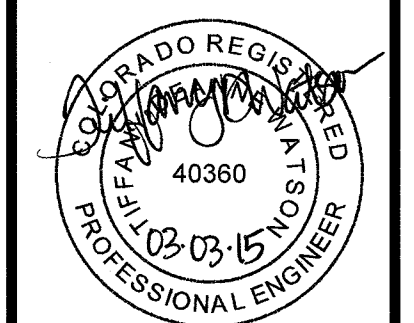
PREPARED UNDER
THE DIRECT
SUPERVISION OF
TIFFANY D. WATSON
COLORADO
LICENSE NO. 40360
FOR AND ON
BEHALF OF POINT
CONSULTING, LLC

SITE DEVELOPMENT CONSTRUCTION DOCUMENTS
CHASE BANK
AT CHERRY KNOLLS SHOPPING CENTER
CENTENNIAL, CO
JOB NO. 14.04.033

| DATE | DESCRIPTION | COVER SHEET |
|----------|----------------|-------------|
| 02.27.15 | APPROVED PLANS | C0.00 |



CD CASE NUMBER: CD-14-00302



PREPARED UNDER THE DIRECT SUPERVISION OF
 CHRISTOPHER J. WILSON
 PROFESSIONAL ENGINEER
 LICENSE NO. 40360
 FOR AND ON BEHALF OF POINT CONSULTING, LLC

SITE DEVELOPMENT CONSTRUCTION DOCUMENTS
CHASE BANK
 AT CHERRY KNOLLS SHOPPING CENTER
 CENTENNIAL, CO

| | | | |
|------|----------|-----------------------------|----------------|
| DATE | 02.27.15 | DESCRIPTION | APPROVED PLANS |
| | | SITE PLAN | |
| | | JOB NO. 14.04.033 | |
| | | CD CASE NUMBER: CD-14-00302 | |

LEGEND

- PROPERTY LINE
- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- PROPOSED CONCRETE SIDEWALK
- PROPOSED HANDICAP PARKING STALL
- PROPOSED ADA ACCESS ROUTE
- PROPOSED PARKING COUNT PER SETBACK

CONSTRUCTION NOTES

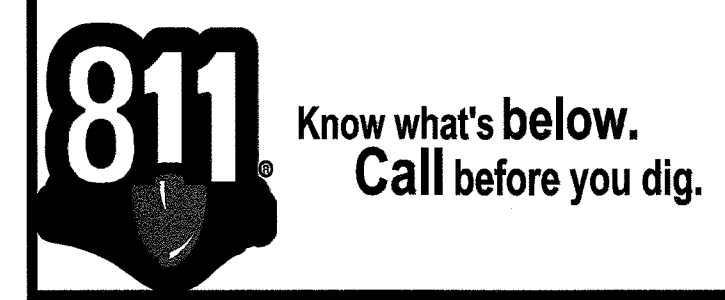
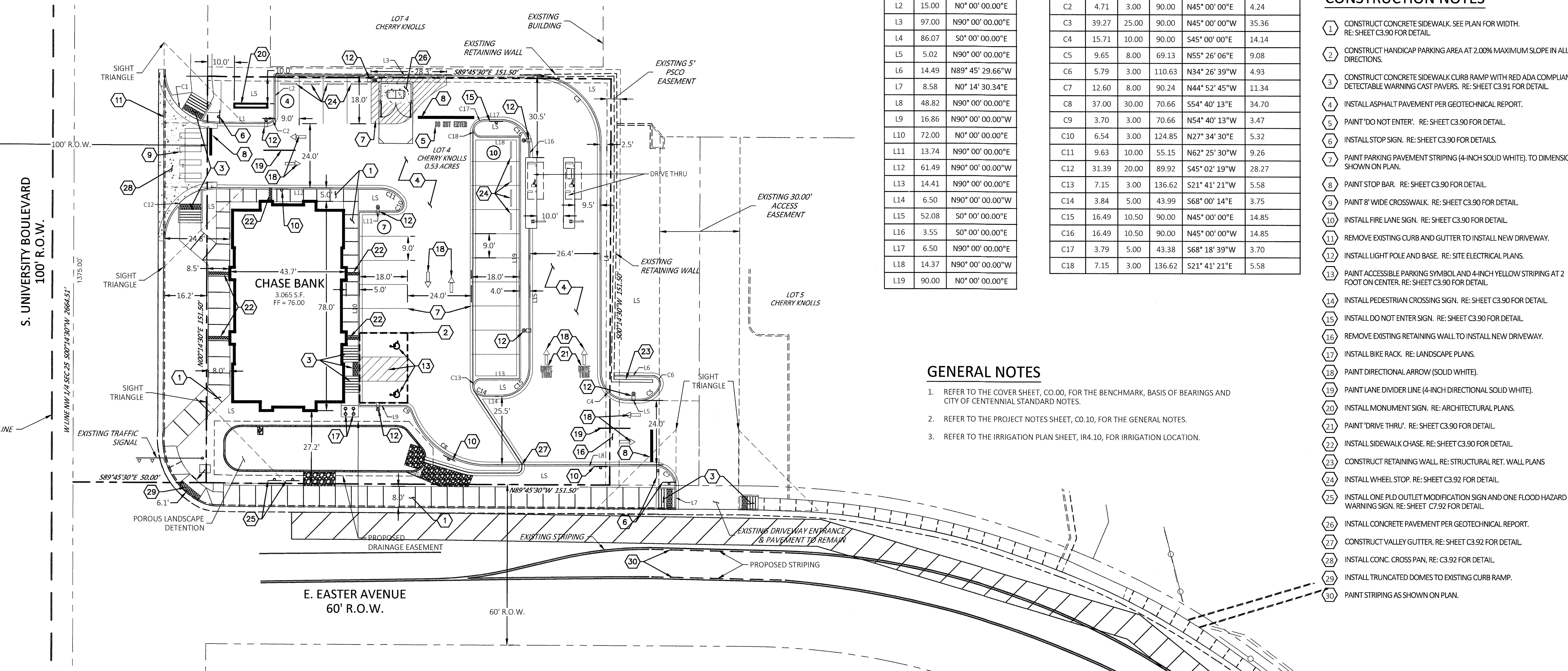
- 1 CONSTRUCT CONCRETE SIDEWALK. SEE PLAN FOR WIDTH. RE: SHEET C3.90 FOR DETAIL.
- 2 CONSTRUCT HANDICAP PARKING AREA AT 2.00% MAXIMUM SLOPE IN ALL DIRECTIONS.
- 3 CONSTRUCT CONCRETE SIDEWALK CURB RAMP WITH RED ADA COMPLIANT DETECTABLE WARNING CAST PAVERS. RE: SHEET C3.91 FOR DETAIL.
- 4 INSTALL ASPHALT PAVEMENT PER GEOTECHNICAL REPORT.
- 5 PAINT 'DO NOT ENTER'. RE: SHEET C3.90 FOR DETAIL.
- 6 INSTALL STOP SIGN. RE: SHEET C3.90 FOR DETAILS.
- 7 PAINT PARKING PAVEMENT STRIPING (4-INCH SOLID WHITE). TO DIMENSIONS SHOWN ON PLAN.
- 8 PAINT STOP BAR. RE: SHEET C3.90 FOR DETAIL.
- 9 PAINT 8' WIDE CROSSWALK. RE: SHEET C3.90 FOR DETAIL.
- 10 INSTALL FIRE LANE SIGN. RE: SHEET C3.90 FOR DETAIL.
- 11 REMOVE EXISTING CURB AND GUTTER TO INSTALL NEW DRIVEWAY.
- 12 INSTALL LIGHT POLE AND BASE. RE: SITE ELECTRICAL PLANS.
- 13 PAINT ACCESSIBLE PARKING SYMBOL AND 4-INCH YELLOW STRIPING AT 2 FOOT ON CENTER. RE: SHEET C3.90 FOR DETAIL.
- 14 INSTALL PEDESTRIAN CROSSING SIGN. RE: SHEET C3.90 FOR DETAIL.
- 15 INSTALL DO NOT ENTER SIGN. RE: SHEET C3.90 FOR DETAIL.
- 16 REMOVE EXISTING RETAINING WALL TO INSTALL NEW DRIVEWAY.
- 17 INSTALL BIKE RACK. RE: LANDSCAPE PLANS.
- 18 PAINT DIRECTIONAL ARROW (SOLID WHITE).
- 19 PAINT LANE DIVIDER LINE (4-INCH DIRECTIONAL SOLID WHITE).
- 20 INSTALL MONUMENT SIGN. RE: ARCHITECTURAL PLANS.
- 21 PAINT 'DRIVE THRU'. RE: SHEET C3.90 FOR DETAIL.
- 22 INSTALL SIDEWALK CHASE. RE: SHEET C3.90 FOR DETAIL.
- 23 CONSTRUCT RETAINING WALL. RE: STRUCTURAL RET. WALL PLANS
- 24 INSTALL WHEEL STOP. RE: SHEET C3.92 FOR DETAIL.
- 25 INSTALL ONE PLD OUTLET MODIFICATION SIGN AND ONE FLOOD HAZARD WARNING SIGN. RE: SHEET C7.92 FOR DETAIL.
- 26 INSTALL CONCRETE PAVEMENT PER GEOTECHNICAL REPORT.
- 27 CONSTRUCT VALLEY GUTTER. RE: SHEET C3.92 FOR DETAIL.
- 28 INSTALL CONC. CROSS PAN. RE: C3.92 FOR DETAIL.
- 29 INSTALL TRUNCATED DOMES TO EXISTING CURB RAMP.
- 30 PAINT STRIPING AS SHOWN ON PLAN.

| Line # | Length | Direction |
|--------|--------|------------------|
| L1 | 18.74 | N90° 00' 00.00"E |
| L2 | 15.00 | N0° 00' 00.00"E |
| L3 | 97.00 | N90° 00' 00.00"E |
| L4 | 86.07 | S0° 00' 00.00"E |
| L5 | 5.02 | N90° 00' 00.00"E |
| L6 | 14.49 | N89° 45' 29.66"W |
| L7 | 8.58 | N0° 14' 30.34"E |
| L8 | 48.82 | N90° 00' 00.00"E |
| L9 | 16.86 | N90° 00' 00.00"W |
| L10 | 72.00 | N0° 00' 00.00"E |
| L11 | 13.74 | N90° 00' 00.00"E |
| L12 | 61.49 | N90° 00' 00.00"W |
| L13 | 14.41 | N90° 00' 00.00"E |
| L14 | 6.50 | N90° 00' 00.00"W |
| L15 | 52.08 | S0° 00' 00.00"E |
| L16 | 3.55 | S0° 00' 00.00"E |
| L17 | 6.50 | N90° 00' 00.00"E |
| L18 | 14.37 | N90° 00' 00.00"W |
| L19 | 90.00 | N0° 00' 00.00"E |

| Curve # | Length | Radius | Delta | Chord Direction | Chord Length |
|---------|--------|--------|--------|-----------------|--------------|
| C1 | 31.46 | 20.00 | 90.12 | S44° 56' 20"E | 28.31 |
| C2 | 4.71 | 3.00 | 90.00 | N45° 00' 00"E | 4.24 |
| C3 | 39.27 | 25.00 | 90.00 | N45° 00' 00"W | 35.36 |
| C4 | 15.71 | 10.00 | 90.00 | S45° 00' 00"E | 14.14 |
| C5 | 9.65 | 8.00 | 69.13 | N55° 26' 06"E | 9.08 |
| C6 | 5.79 | 3.00 | 110.63 | N34° 26' 39"W | 4.93 |
| C7 | 12.60 | 8.00 | 90.24 | N44° 52' 45"W | 11.34 |
| C8 | 37.00 | 30.00 | 70.66 | S54° 40' 13"E | 34.70 |
| C9 | 3.70 | 3.00 | 70.66 | N54° 40' 13"W | 3.47 |
| C10 | 6.54 | 3.00 | 124.85 | N27° 34' 30"E | 5.32 |
| C11 | 9.63 | 10.00 | 55.15 | N62° 25' 30"W | 9.26 |
| C12 | 31.39 | 20.00 | 89.92 | S45° 02' 19"W | 28.27 |
| C13 | 7.15 | 3.00 | 136.62 | S21° 41' 21"W | 5.58 |
| C14 | 3.84 | 5.00 | 43.99 | S68° 00' 14"E | 3.75 |
| C15 | 16.49 | 10.50 | 90.00 | N45° 00' 00"E | 14.85 |
| C16 | 16.49 | 10.50 | 90.00 | N45° 00' 00"W | 14.85 |
| C17 | 3.79 | 5.00 | 43.38 | S68° 18' 39"W | 3.70 |
| C18 | 7.15 | 3.00 | 136.62 | S21° 41' 21"E | 5.58 |

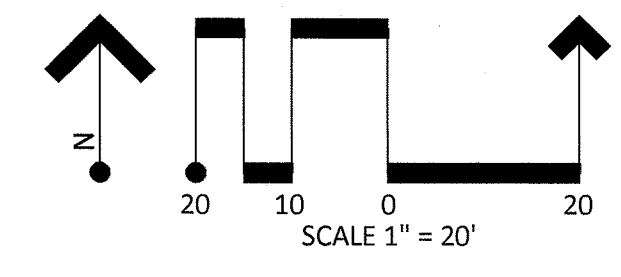
GENERAL NOTES

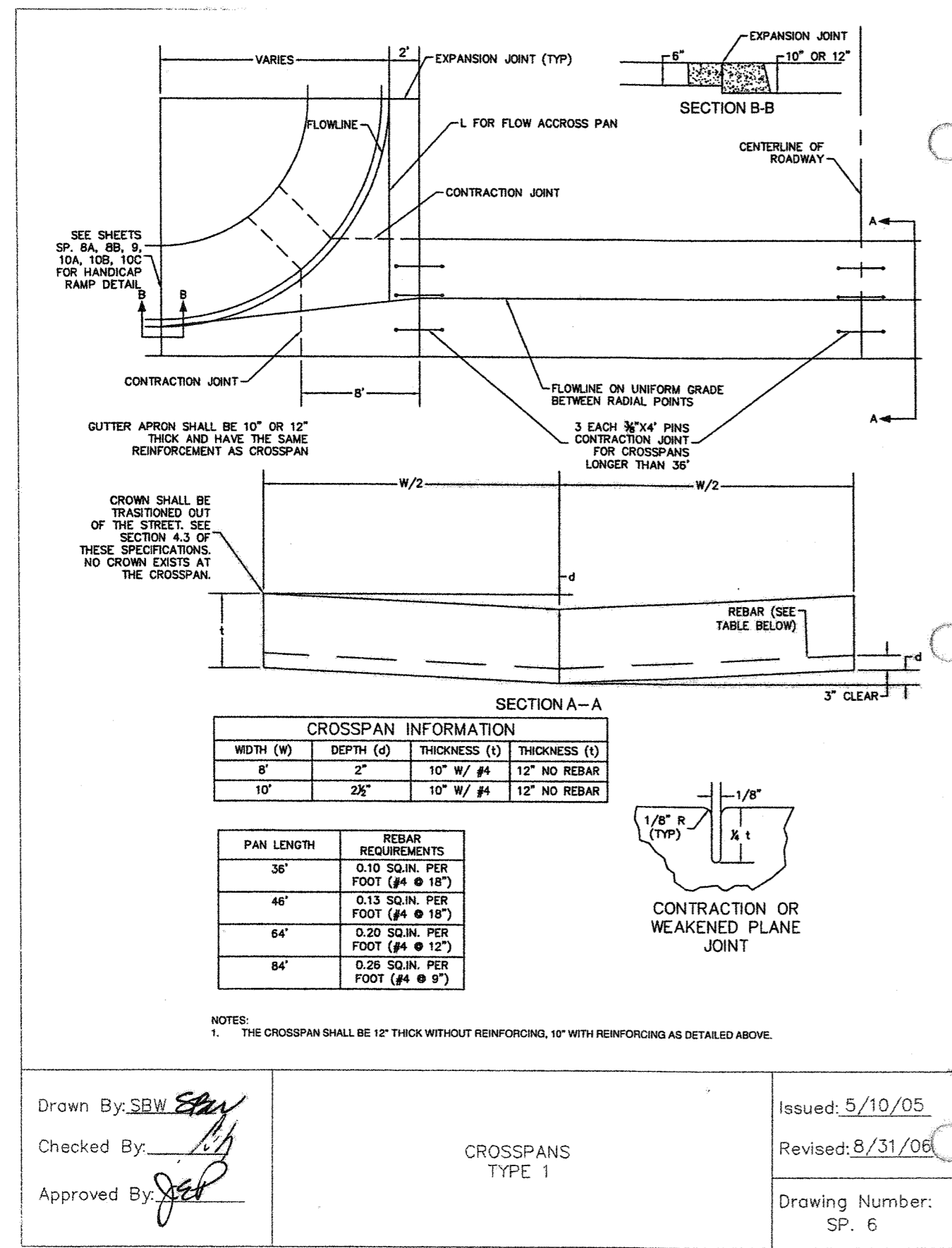
1. REFER TO THE COVER SHEET, CO.00, FOR THE BENCHMARK, BASIS OF BEARINGS AND CITY OF CENTENNIAL STANDARD NOTES.
2. REFER TO THE PROJECT NOTES SHEET, CO.10, FOR THE GENERAL NOTES.
3. REFER TO THE IRRIGATION PLAN SHEET, IR4.10, FOR IRRIGATION LOCATION.



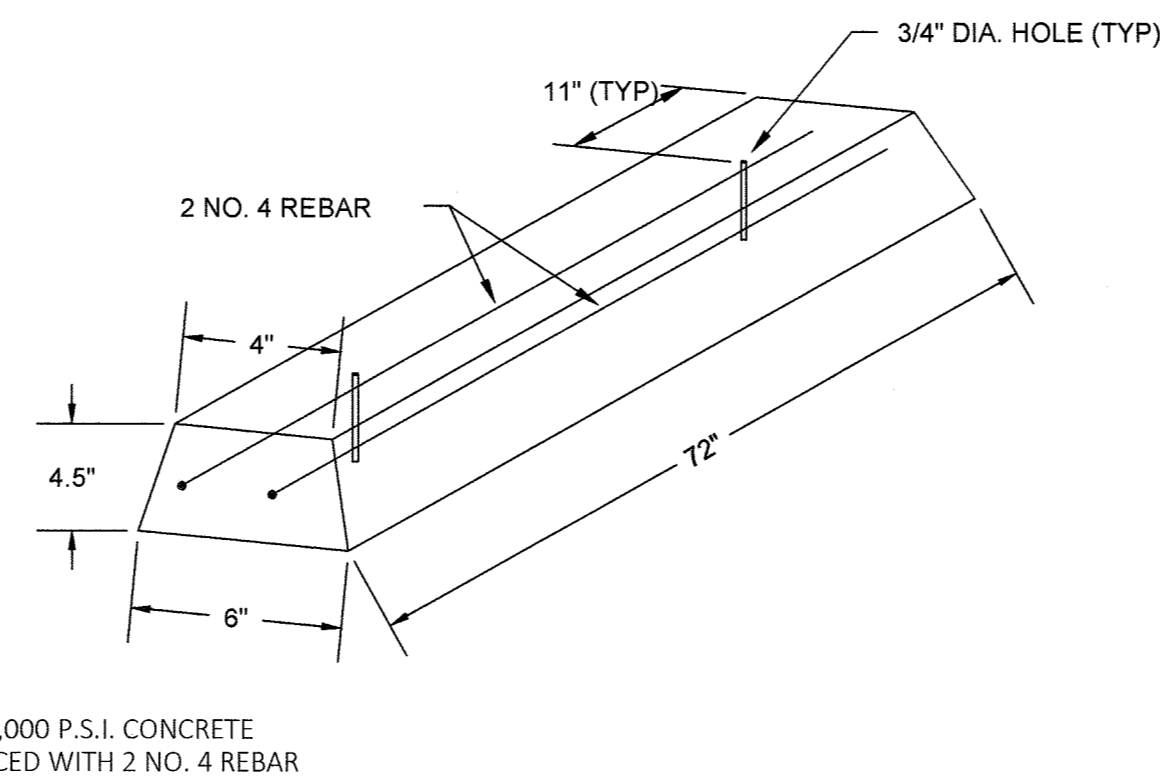
Record Drawing

As example

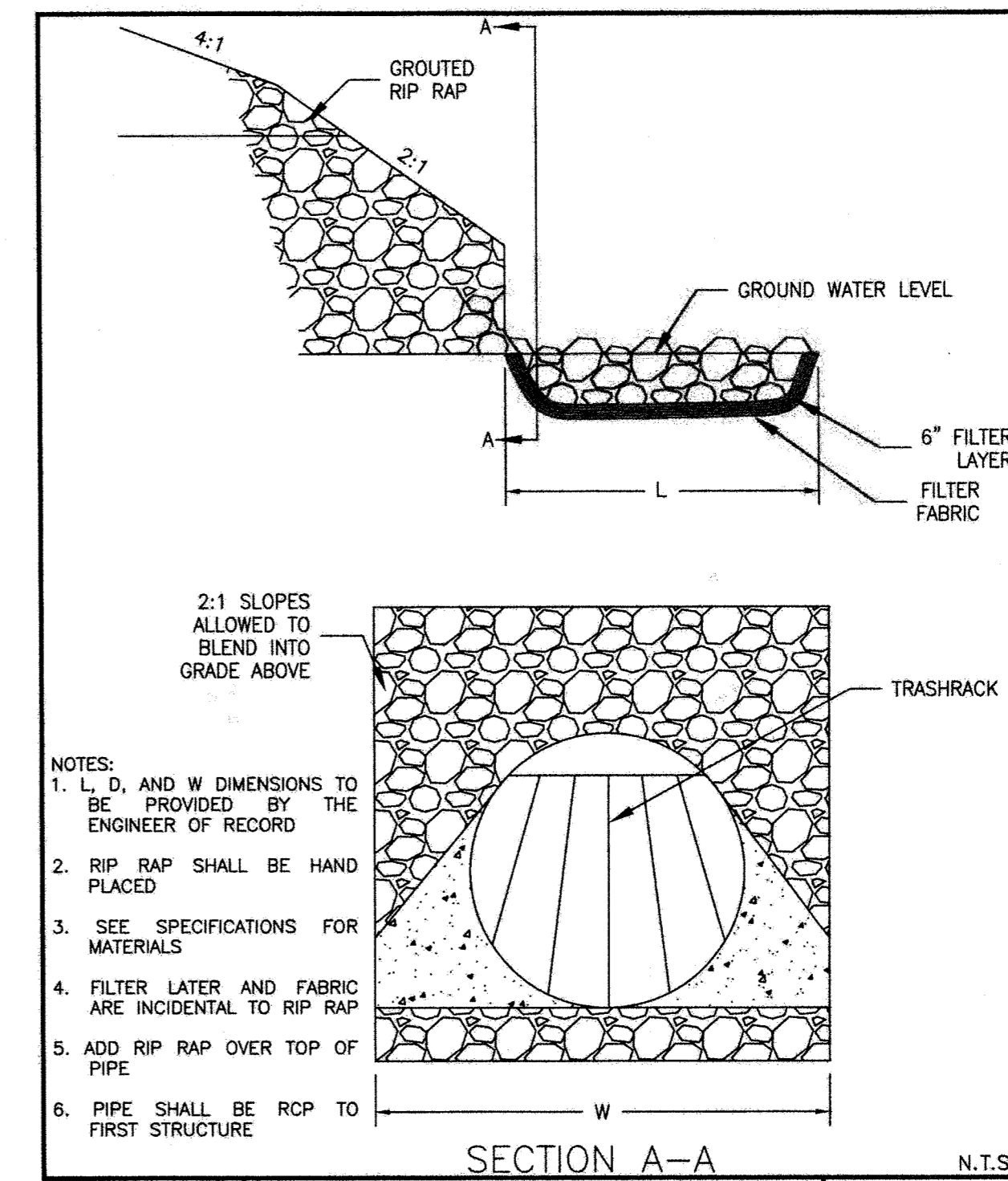




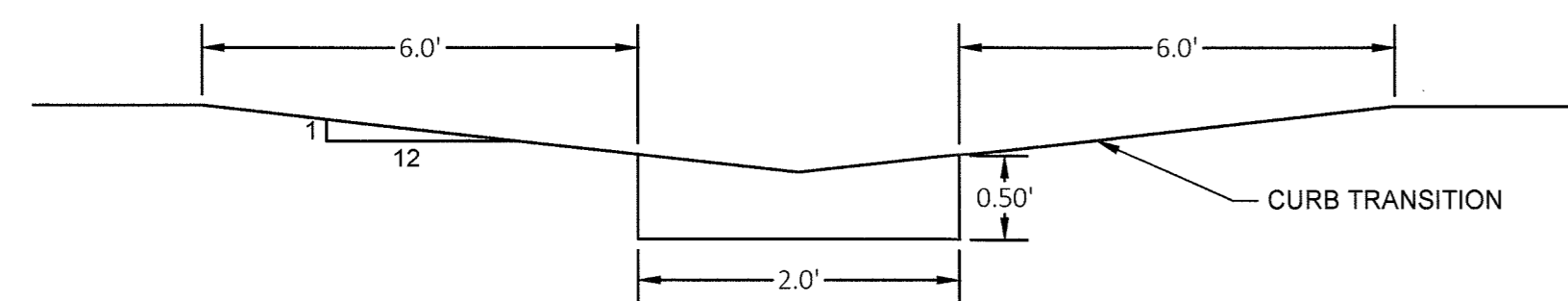
CONCRETE CROSSPAN DETAIL
 NOT TO SCALE



WHEEL STOP DETAIL
 NOT TO SCALE



RIPRAP DETAIL
 NOT TO SCALE



VALLEY GUTTER DETAIL
 NOT TO SCALE



| DATE | DESCRIPTION |
|----------|----------------|
| 02.27.15 | APPROVED PLANS |



LEGEND

- PROPERTY LINE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER W/1-FOOT CATCH PAN
- PROPOSED CURB AND GUTTER W/1-FOOT SPILL PAN
- STORM SEWER
- LS LANDSCAPE AREA
- 5280--- PROPOSED CONTOUR
- 5280--- EXISTING CONTOUR
- DRAINAGE FLOW ARROW
- (17.04) EXISTING SPOT ELEVATION
- (16.68) PROPOSED SPOT ELEVATION

BENCHMARK

ARAPAHOE COUNTY VERTICAL CONTROL NETWORK NO. 52 (TWN: 2077-24-3; BENORGN: AC-86-12) AND IS AN ALUMINUM CAP SET AT THE BACK OF THE WALK AT THE SOUTHEAST CORNER OF PEAKVIEW AVE. AND UNIVERSITY BLVD., SET AT THE SOUTHWEST CORNER OF AN INLET BOX. INLET BOX IS AT THE EAST CURB RETURN ON PEAKVIEW, 47.8 FEET SOUTHWEST OF A FIRE HYDRANT.
ELEVATION = 5511.41' NGVD 29 VERTICAL DATUM (5514.438' NAVD 88)

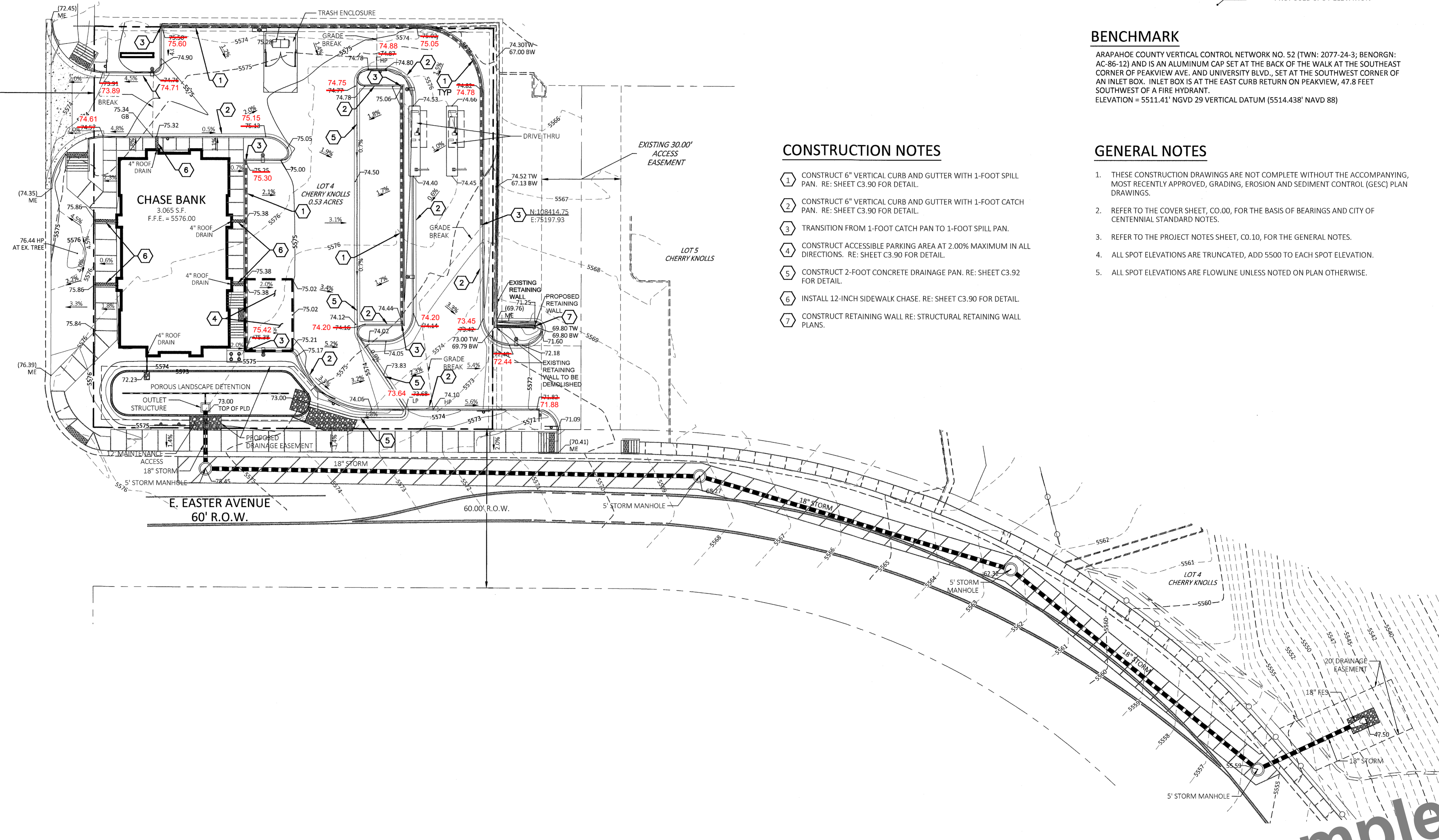
GENERAL NOTES

1. THESE CONSTRUCTION DRAWINGS ARE NOT COMPLETE WITHOUT THE ACCOMPANYING, MOST RECENTLY APPROVED, GRADING, EROSION AND SEDIMENT CONTROL (GES) PLAN DRAWINGS.
2. REFER TO THE COVER SHEET, CO.00, FOR THE BASIS OF BEARINGS AND CITY OF CENTENNIAL STANDARD NOTES.
3. REFER TO THE PROJECT NOTES SHEET, CO.10, FOR THE GENERAL NOTES.
4. ALL SPOT ELEVATIONS ARE TRUNCATED, ADD 5500 TO EACH SPOT ELEVATION.
5. ALL SPOT ELEVATIONS ARE FLOWLINE UNLESS NOTED ON PLAN OTHERWISE.

CONSTRUCTION NOTES

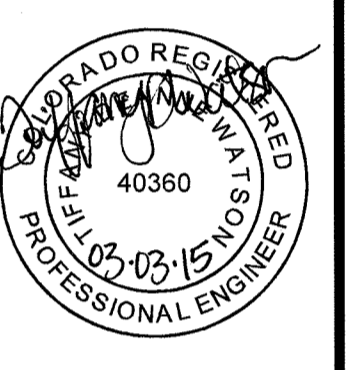
1. CONSTRUCT 6" VERTICAL CURB AND GUTTER WITH 1-FOOT SPILL PAN. RE: SHEET C3.90 FOR DETAIL.
2. CONSTRUCT 6" VERTICAL CURB AND GUTTER WITH 1-FOOT CATCH PAN. RE: SHEET C3.90 FOR DETAIL.
3. TRANSITION FROM 1-FOOT CATCH PAN TO 1-FOOT SPILL PAN.
4. CONSTRUCT ACCESSIBLE PARKING AREA AT 2.00% MAXIMUM IN ALL DIRECTIONS. RE: SHEET C3.90 FOR DETAIL.
5. CONSTRUCT 2-FOOT CONCRETE DRAINAGE PAN. RE: SHEET C3.92 FOR DETAIL.
6. INSTALL 12-INCH SIDEWALK CHASE. RE: SHEET C3.90 FOR DETAIL.
7. CONSTRUCT RETAINING WALL RE: STRUCTURAL RETAINING WALL PLANS.

S. UNIVERSITY BOULEVARD
100' R.O.W.



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 SUPERVISION OF
 TIFFANY D. WATSON
 COLORADO
 LICENSE NO. 40360
 FOR AND ON
 BEHALF OF POINT
 CONSULTING, LLC



SITE DEVELOPMENT CONSTRUCTION DOCUMENTS
CHASE BANK
 AT CHERRY KNOLLS SHOPPING CENTER
 CENTENNIAL, CO

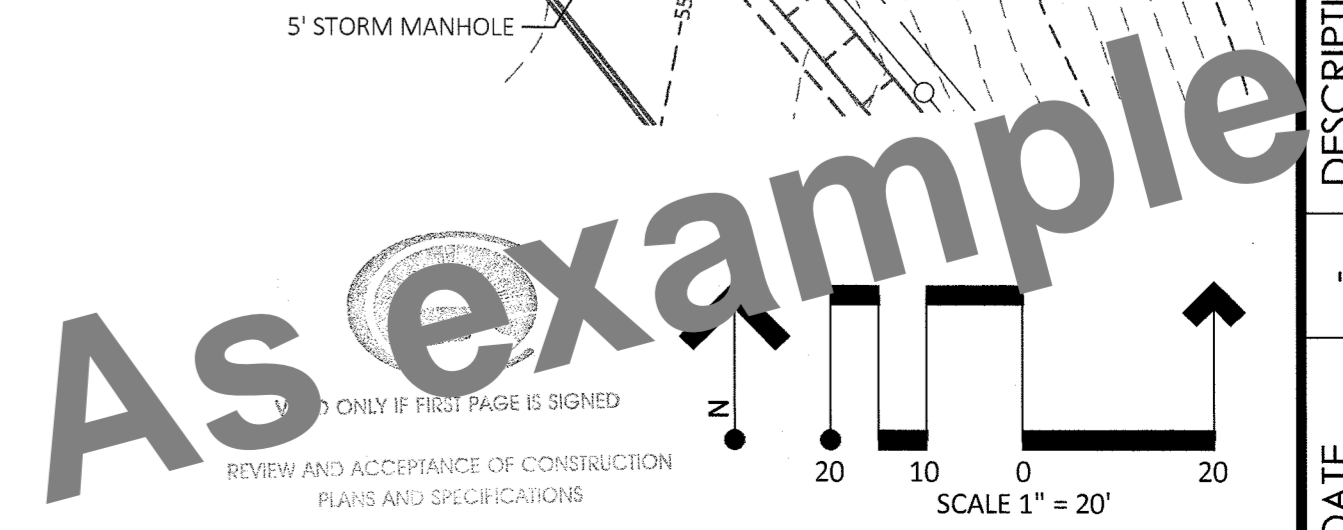
GRADING PLAN JOB NO. 14.04.033

| | |
|-------------|----------------|
| DATE | 02.27.15 |
| DESCRIPTION | APPROVED PLANS |
| | |
| | |

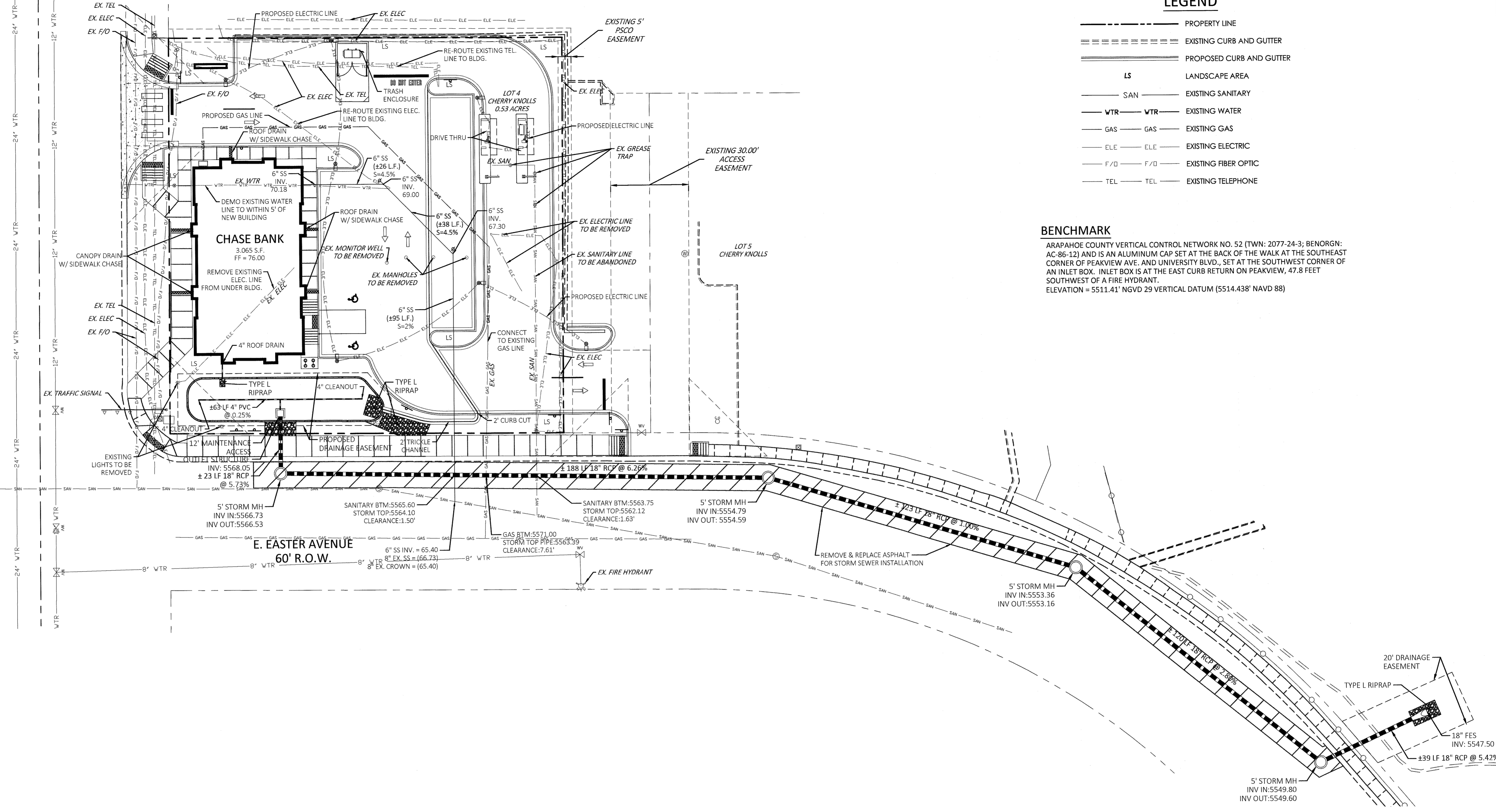


CD CASE NUMBER: CD-14-00302

Record Drawing



S. UNIVERSITY BOULEVARD
100' R.O.W.

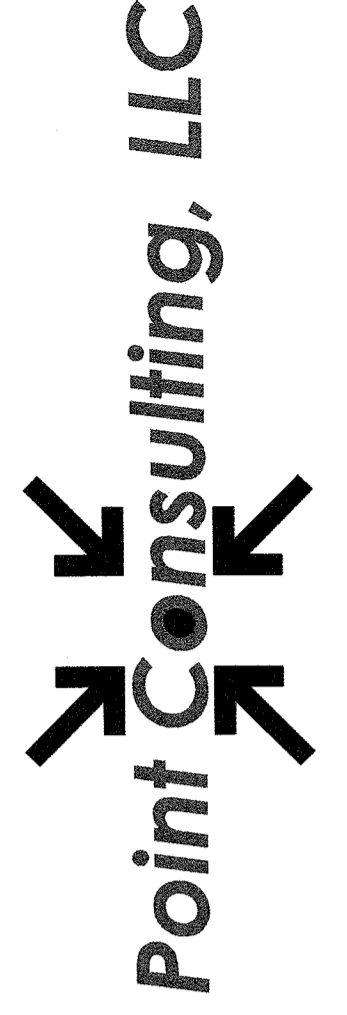


LEGEND

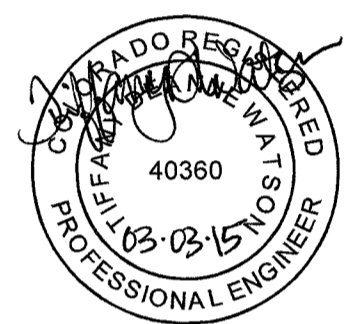
- PROPERTY LINE
- ===== EXISTING CURB AND GUTTER
- ===== PROPOSED CURB AND GUTTER
- LS LANDSCAPE AREA
- SAN ----- EXISTING SANITARY
- WTR ----- EXISTING WATER
- GAS ----- EXISTING GAS
- ELE ----- EXISTING ELECTRIC
- F/O ----- EXISTING FIBER OPTIC
- TEL ----- EXISTING TELEPHONE

BENCHMARK

ARAPAHOE COUNTY VERTICAL CONTROL NETWORK NO. 52 (TWN: 2077-24-3; BERNGRN: AC-86-12) AND IS AN ALUMINUM CAP SET AT THE BACK OF THE WALK AT THE SOUTHEAST CORNER OF PEAKVIEW AVE. AND UNIVERSITY BLVD., SET AT THE SOUTHWEST CORNER OF AN INLET BOX. INLET BOX IS AT THE EAST CURB RETURN ON PEAKVIEW, 47.8 FEET SOUTHWEST OF A FIRE HYDRANT.
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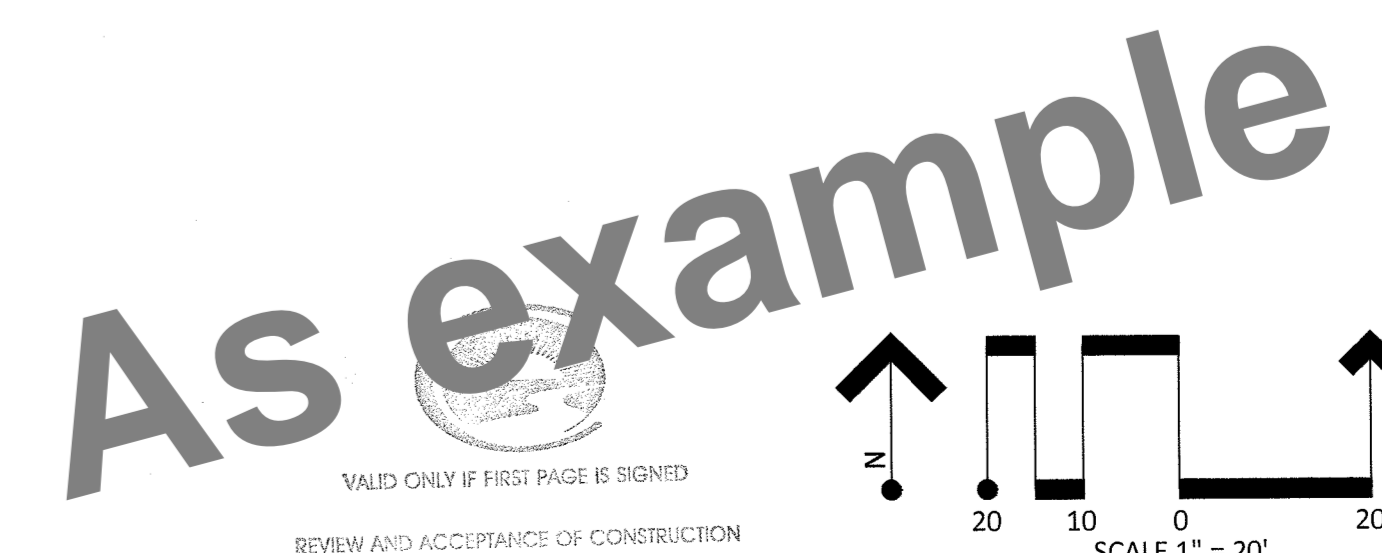
SITE DEVELOPMENT CONSTRUCTION DOCUMENTS
CHASE BANK
AT CHERRY KNOLLS SHOPPING CENTER
CENTENNIAL, CO
JOB NO. 14.04.033

| DATE | DESCRIPTION |
|----------|----------------|
| 02/27/15 | APPROVED PLANS |



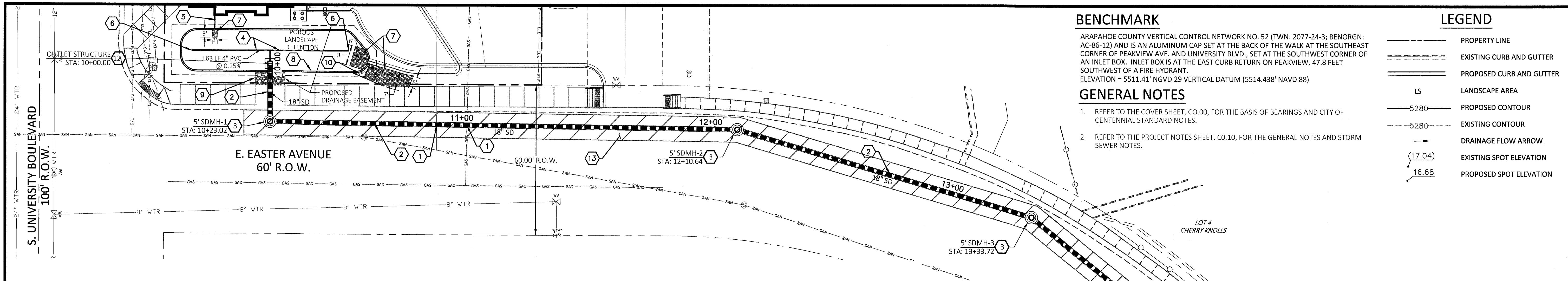
CD CASE NUMBER: CD-14-00302

Record Drawing



VALID ONLY IF FIRST PAGE IS SIGNED
REVIEW AND ACCEPTANCE OF CONSTRUCTION
PLANS AND SPECIFICATIONS

As example



BENCHMARK

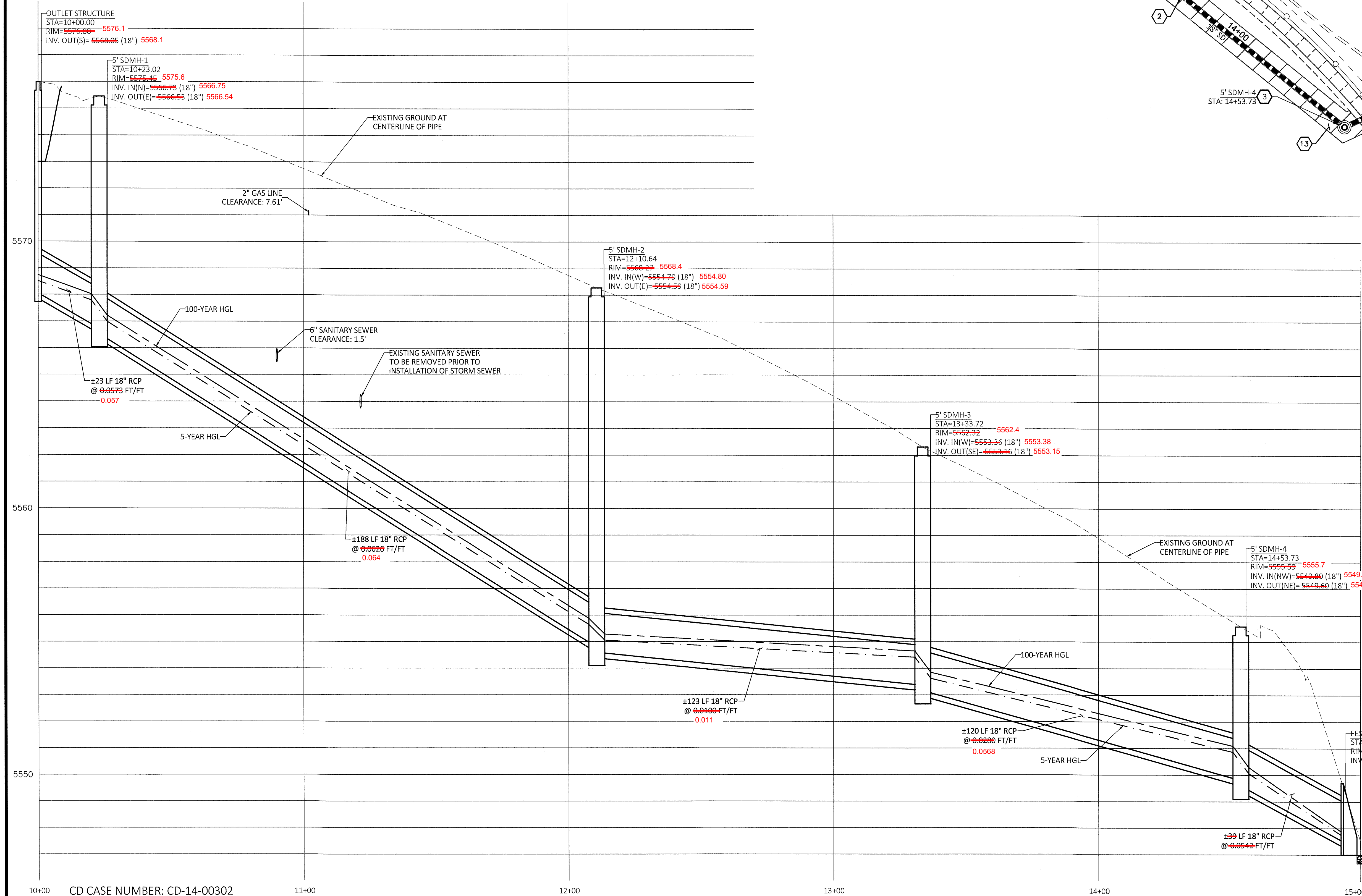
ARAPAHOE COUNTY VERTICAL CONTROL NETWORK NO. 52 (TWN: 2077-24-3; BENORGN: AC-86-12) AND IS AN ALUMINUM CAP SET AT THE BACK OF THE WALK AT THE SOUTHEAST CORNER OF PEAKVIEW AVE. AND UNIVERSITY BLVD., SET AT THE SOUTHWEST CORNER OF AN INLET BOX. INLET BOX IS AT THE EAST CURB RETURN ON PEAKVIEW, 47.8 FEET SOUTHWEST OF A FIRE HYDRANT. ELEVATION = 5511.41' NGVD 29 VERTICAL DATUM (5514.438' NAVD 88)

GENERAL NOTES

- REFER TO THE COVER SHEET, CO.00, FOR THE BASIS OF BEARINGS AND CITY OF CENTENNIAL STANDARD NOTES.
- REFER TO THE PROJECT NOTES SHEET, CO.10, FOR THE GENERAL NOTES AND STORM SEWER NOTES.

LEGEND

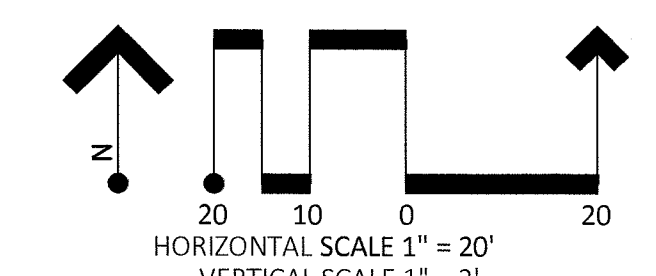
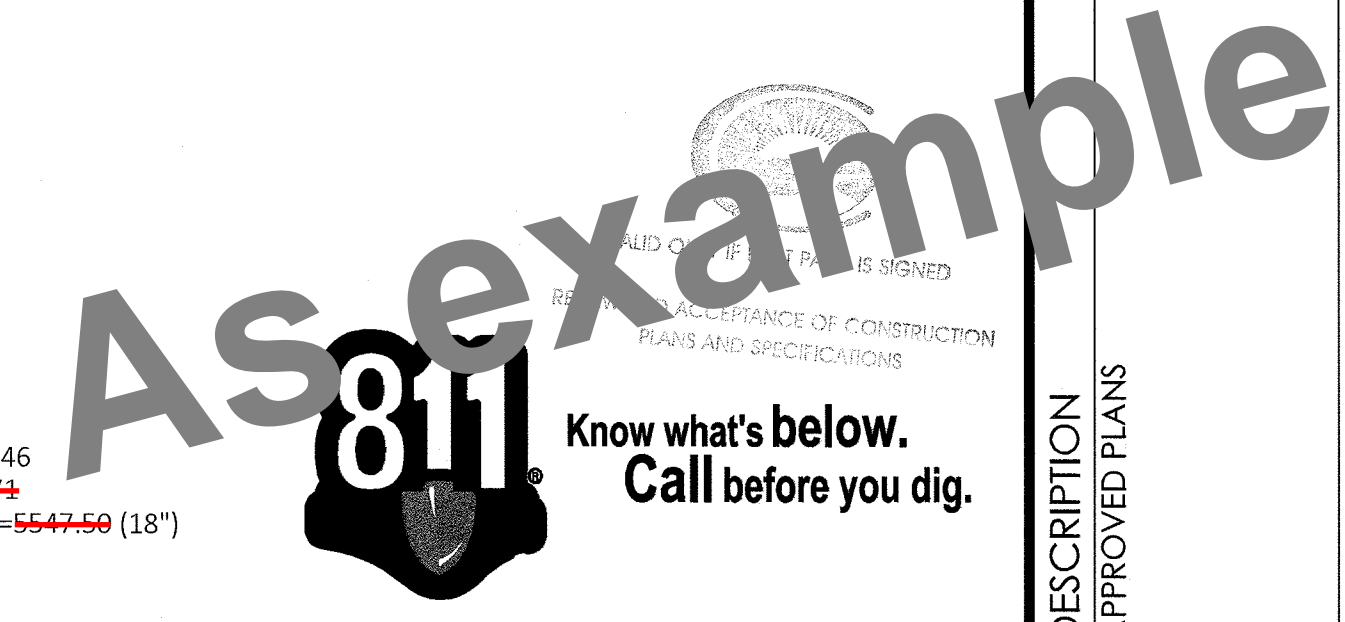
- PROPERTY LINE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- LS LANDSCAPE AREA
- 5280--- PROPOSED CONTOUR
- 5280--- EXISTING CONTOUR
- DRAINAGE FLOW ARROW
- (17.04) EXISTING SPOT ELEVATION
- 16.68 PROPOSED SPOT ELEVATION



CONSTRUCTION NOTES

- CAUTION UTILITY CROSSING. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO CONSTRUCTION. MINIMUM CLEARANCE SHALL BE 18-INCHES.
- INSTALL 18-INCH RCP STORM SEWER. RE: SHEET C7.90 FOR DETAIL.
- INSTALL 5-FOOT DIAMETER STORM DRAIN MANHOLE. RE: SHEET C7.90 FOR DETAIL.
- INSTALL 4-INCH PERFORATED PVC PIPE FOR POROUS LANDSCAPE DETENTION UNDERDRAIN (PLD). RE: SHEETS C7.91 AND C7.92 FOR DETAILS.
- INSTALL ±6 LF 4-INCH PVC @ 2.08% FOR ROOF DRAIN. RE: PLUMBING PLANS FOR CONNECTION TO ROOF DRAIN.
- INSTALL 4-INCH CLEANOUT WITHIN PLD. RE: SHEET C7.90 AND C7.92 FOR DETAILS.
- INSTALL TYPE L RIPRAP PER DIMENSIONS SHOWN ON PLAN AND 1.5-FOOT THICK.
- INSTALL CONCRETE PERIMETER WALL FOR PLD. RE: SHEETS C7.91 AND C7.92 FOR DETAILS.
- INSTALL MAINTENANCE ACCESS DRIVE. RE: SHEET C7.91 FOR DETAIL.
- INSTALL 6-FOOT LONG CONCRETE EMERGENCY OVERFLOW WEIR.
- INSTALL 18-INCH FLARED END SECTION.
- INSTALL CDOT TYPE C STRUCTURE FOR THE OUTLET STRUCTURE. RE: SHEET C7.90 FOR DETAIL.
- REMOVE AND REPLACE ASPHALT FOR STORM SEWER INSTALLATION. ASPHALT SECTION TO MATCH EXISTING.

Record Drawing



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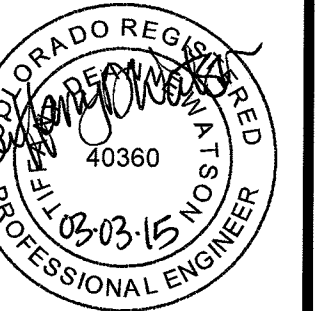
SITE DEVELOPMENT CONSTRUCTION DOCUMENTS
CHASE BANK
AT CHERRY KNOLLS SHOPPING CENTER
CENTENNIAL, CO

DATE: 02.27.15

DESCRIPTION: APPROVED PLANS

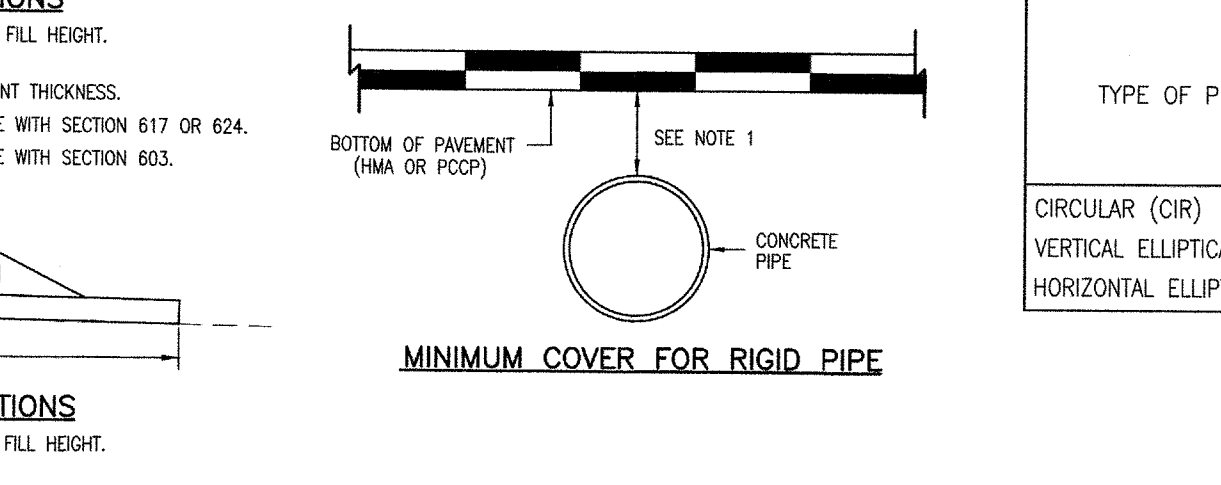
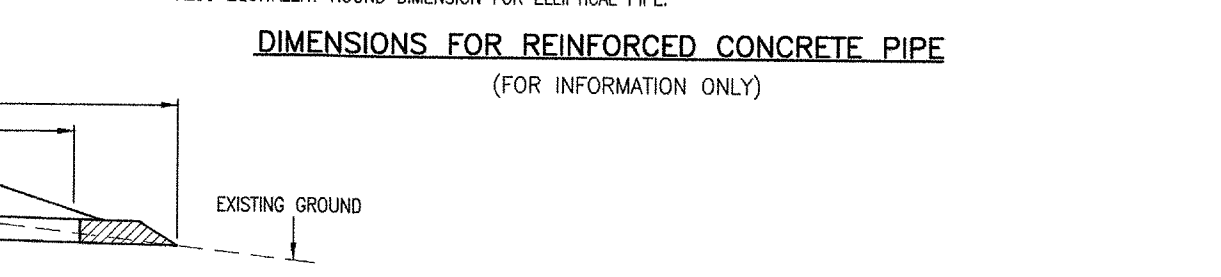
STORM SEWER PLAN AND PROFILE JOB NO. 14.04.033

C7.10



| CIRCULAR (CIR) | | | | VERTICAL ELLIPTICAL (VE) | | | | HORIZONTAL ELLIPTICAL (HE) | | | |
|-----------------------------|----------------|----------------------|--|--------------------------|------|----------------|------------------|----------------------------|------|----------------|------------------|
| PIPE SIZE = Bc (INSIDE DIA) | WALL THICKNESS | 0.3 Bc (OUTSIDE DIA) | | SPAN | RISE | WALL THICKNESS | 0.3 OUTSIDE RISE | SPAN | RISE | WALL THICKNESS | 0.3 OUTSIDE RISE |
| 12 | 2 | 0.40 | | | | | | 23 | 14 | 2-3/4 | 0.49 |
| 15 | 2-1/4 | 0.49 | | | | | | | | | |
| 18 | 2-1/2 | 0.58 | | | | | | | | | |
| 21 | 2-3/4 | 0.66 | | | | | | 30 | 19 | 3-1/4 | 0.66 |
| 24 | 3 | 0.75 | | | | | | 34 | 22 | 3-1/2 | 0.73 |
| 27 | 3-1/4 | 0.84 | | | | | | | | | |
| 30 | 3-1/2 | 0.92 | | | | | | 38 | 24 | 3-3/4 | 0.79 |
| 33 | 3-3/4 | 1.01 | | | | | | | | | |
| 36 | 4 | 1.10 | | 29 | 45 | 4-1/2 | 1.35 | 45 | 29 | 4-1/2 | 0.95 |
| 42 | 4-1/2 | 1.28 | | 34 | 53 | 5 | 1.58 | 53 | 34 | 5 | 1.10 |
| 48 | 5 | 1.45 | | 38 | 60 | 5-1/2 | 1.78 | 60 | 38 | 5-1/2 | 1.23 |
| 54 | 5-1/2 | 1.62 | | 43 | 68 | 6 | 2.00 | 68 | 43 | 6 | 1.38 |
| 60 | 6 | 1.80 | | 48 | 76 | 6-1/2 | 2.23 | 76 | 48 | 6-1/2 | 1.53 |
| 66 | 6-1/2 | 1.97 | | 53 | 83 | 7 | 2.43 | 83 | 53 | 7 | 1.68 |
| 72 | 7 | 2.15 | | 58 | 91 | 7-1/2 | 2.65 | 91 | 58 | 7-1/2 | 1.83 |
| 78 | 7-1/2 | 2.32 | | 63 | 98 | 8 | 2.85 | 98 | 63 | 8 | 1.98 |
| 84 | 8 | 2.50 | | 68 | 106 | 8-1/2 | 3.09 | 106 | 68 | 8-1/2 | 2.13 |
| 90 | 8-1/2 | 2.68 | | 72 | 113 | 9 | 3.28 | 113 | 72 | 9 | 2.25 |
| 96 | 9 | 2.85 | | 77 | 121 | 9-1/2 | 3.50 | 121 | 77 | 9-1/2 | 2.40 |
| 102 | 9-1/2 | 3.02 | | 82 | 128 | 9-3/4 | 3.69 | 128 | 82 | 9-3/4 | 2.54 |
| 108 | 10 | 3.20 | | 87 | 136 | 10 | 3.90 | 136 | 87 | 10 | 2.68 |

△ ALSO EQUIVALENT ROUND DIMENSION FOR ELLIPTICAL PIPE.

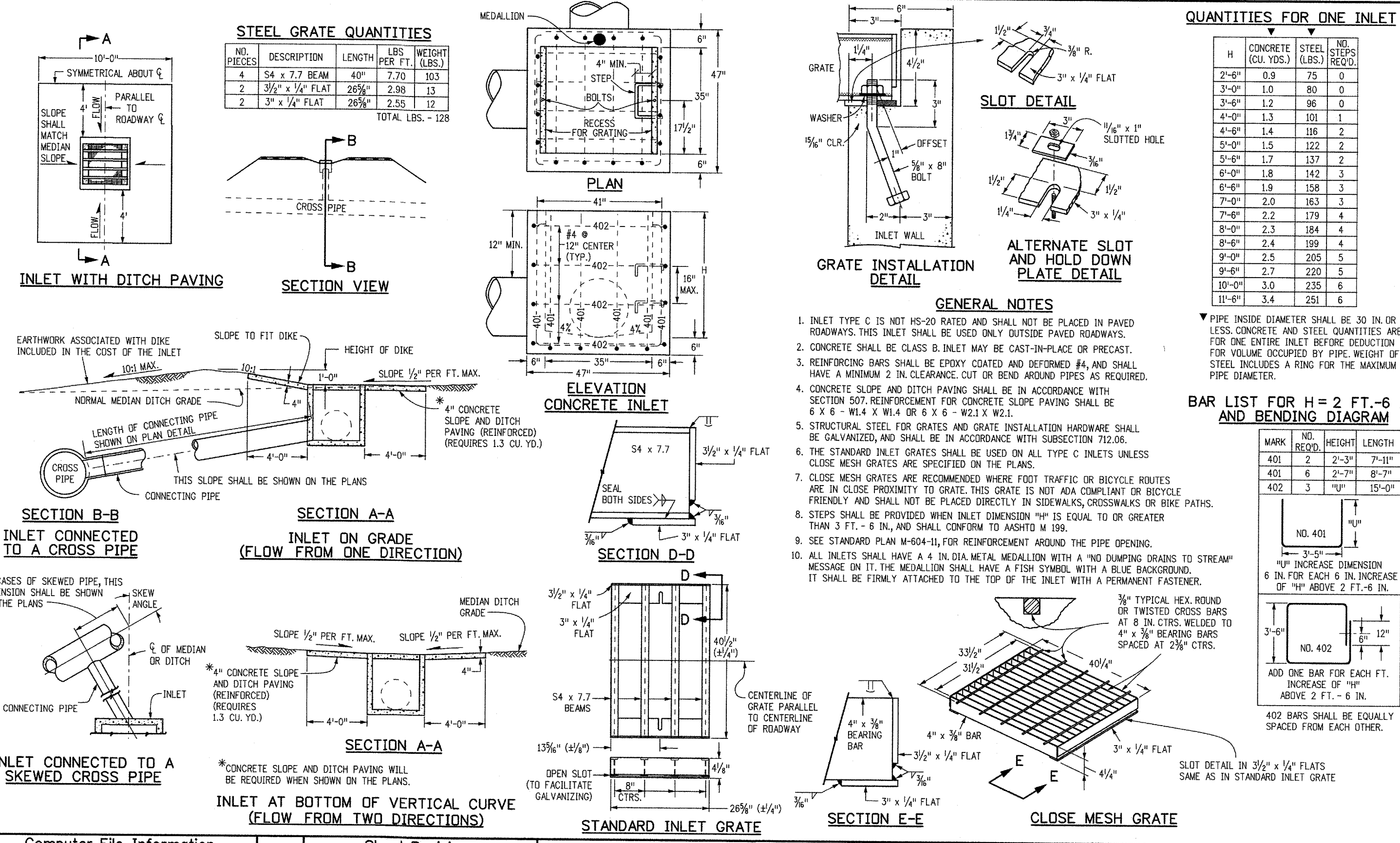


- GENERAL NOTES**
1. REINFORCED CONCRETE PIPE SHALL BE PROVIDED DURING CONSTRUCTION TO PROTECT THE PIPE FROM DAMAGE. THE MINIMUM COVER SHALL BE AS SHOWN ON THESE TABLES OR CONFORM TO AASHTO REQUIREMENTS, WHICHEVER IS GREATER. THE MINIMUM COVER FOR REINFORCED CONCRETE PIPE IS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT (HMA OR PCCP).
 2. FILL HEIGHTS GREATER THAN MAXIMUM ALLOWED IN THE HEIGHTS OF FILL TABLE ON THIS SHEET REQUIRE SPECIAL DESIGN OF STRUCTURE.
 3. PIPE DESIGN IS BASED ON SAFETY FACTOR OF 1.33 ON ULTIMATE STRENGTH.
 4. THE HEIGHTS OF FILL OVER TOP OF PIPE ARE BASED ON UNIT WEIGHT OF SOIL AT 135 LBS. PER CUBIC FT.
 5. PIPE CLASS IS DETERMINED FROM 0.01 IN. CRACK D-L-LOAD.
 6. BEDDING IS CLASS B (MODIFIED) FROM CONCRETE PIPE DESIGN MANUAL - AMERICAN CONCRETE PIPE ASSOCIATION WITH SETTLEMENT RATIO R = 0.02 (YIELDING BED). BEDDING MATERIAL FOR RIGID PIPE IN SOIL SHALL BE 3 IN. LOOSE THICKNESS STRUCTURE BACKFILL CLASS 2. BEDDING MATERIAL FOR RIGID PIPE IN ROCK SHALL BE 12 IN. LOOSE THICKNESS STRUCTURE BACKFILL CLASS 1.
 7. CHANGES IN DESIGN FACTORS REQUIRE COMPENSATING CHANGES IN PIPE DESIGN.
 8. MINIMUM WALL THICKNESS DIMENSIONS ARE BASED ON AASHTO M 170 (WALL B) FOR CIRCULAR PIPE AND AASHTO M 207 FOR ELLIPTICAL PIPE.
 9. SPACING FOR MULTIPLE PIPE INSTALLATIONS SHALL CONFORM TO THE DETAILS SHOWN ON STANDARD PLAN M-206-1.
 10. WHEN A PIPE IS TO BE EXTENDED, THE SAME PIPE MATERIAL AND SIZE AS IN THE ORIGINAL PIPE INSTALLATION SHALL BE USED.

- NONREINFORCED CONCRETE PIPE**
1. AT THE OPTION OF THE CONTRACTOR, NONREINFORCED CONCRETE PIPE CONFORMING TO AASHTO M 86 MAY BE USED IN LIEU OF REINFORCED CONCRETE PIPE FOR ALL SIZES 36 INCHES IN DIAMETER AND SMALLER. THE NONREINFORCED CONCRETE PIPE SHALL MEET THE SAME D-LOAD TO PROVIDE THE ULTIMATE LOAD UNDER THE THREE-EDGE BEARING METHOD AS SPECIFIED FOR REINFORCED CONCRETE PIPE IN CONFORMANCE WITH AASHTO M 170. THE CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION OF CONFORMANCE. THE WALL THICKNESS OF THE NONREINFORCED PIPE MAY BE INCREASED AS REQUIRED TO MEET D-LOAD REQUIREMENT.
 2. ALL REQUIREMENTS FOR REINFORCED CONCRETE PIPE, EXCEPT THOSE REFERRING TO REINFORCEMENT, SHALL APPLY TO NONREINFORCED CONCRETE PIPE.

ALLOWABLE RANGE OF HEIGHTS FOR FILL OVER REINFORCED CONCRETE PIPE
(ALL SIZES)

| TYPE OF PIPE | HEIGHT OF FILL OVER TOP OF PIPE, H (FEET) | | | | | |
|----------------------------|---|---------------|--------------|-------------|------------|-------------|
| | CLASS CIR II | CLASS CIR III | CLASS CIR IV | CLASS CIR V | CLASS VE V | CLASS VE VI |
| CIRCULAR (CIR) | MIN. TO 18 | MIN. TO 25 | ± 25 TO 37 | ± 37 TO 45 | | |
| VERTICAL ELLIPTICAL (VE) | MIN. TO 18 | MIN. TO 25 | ± 25 TO 37 | ± 37 TO 45 | ± 45 TO 62 | |
| HORIZONTAL ELLIPTICAL (HE) | MIN. TO 18 | MIN. TO 25 | ± 25 TO 37 | | | |



Computer File Information

Creation Date: 07/04/12 Initials: DD
 Last Modification Date: 07/04/12 Initials: LTA
 Full Path: www.coloradodot.info/business/designsupport
 Drawing File Name: 6040100101.dgn
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date: _____ Comments: _____

Colorado Department of Transportation
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 Fax: (303) 757-9820

Project Development Branch DD/LTA

INLET, TYPE C

STANDARD PLAN NO. M-604-10

Issued By: Project Development Branch July 4, 2012

Sheet No. 1 of 1

Computer File Information

Creation Date: 07/04/06 Initials: SJR
 Last Modification Date: 07/04/06 Initials: LTA
 Full Path: www.dot.state.co.us/DesignSupport/
 Drawing File Name: 603020101.dwg
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date: _____ Comments: _____

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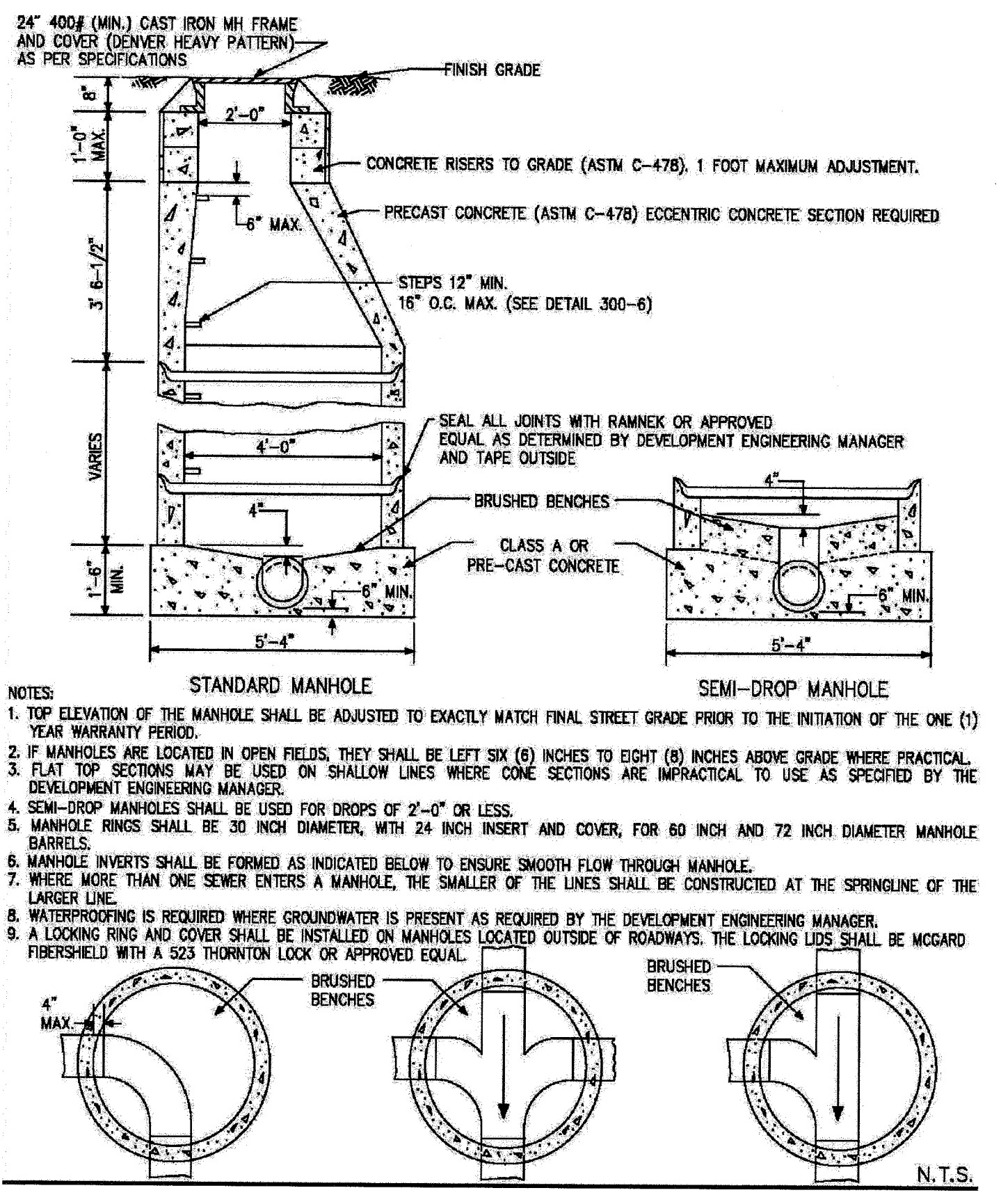
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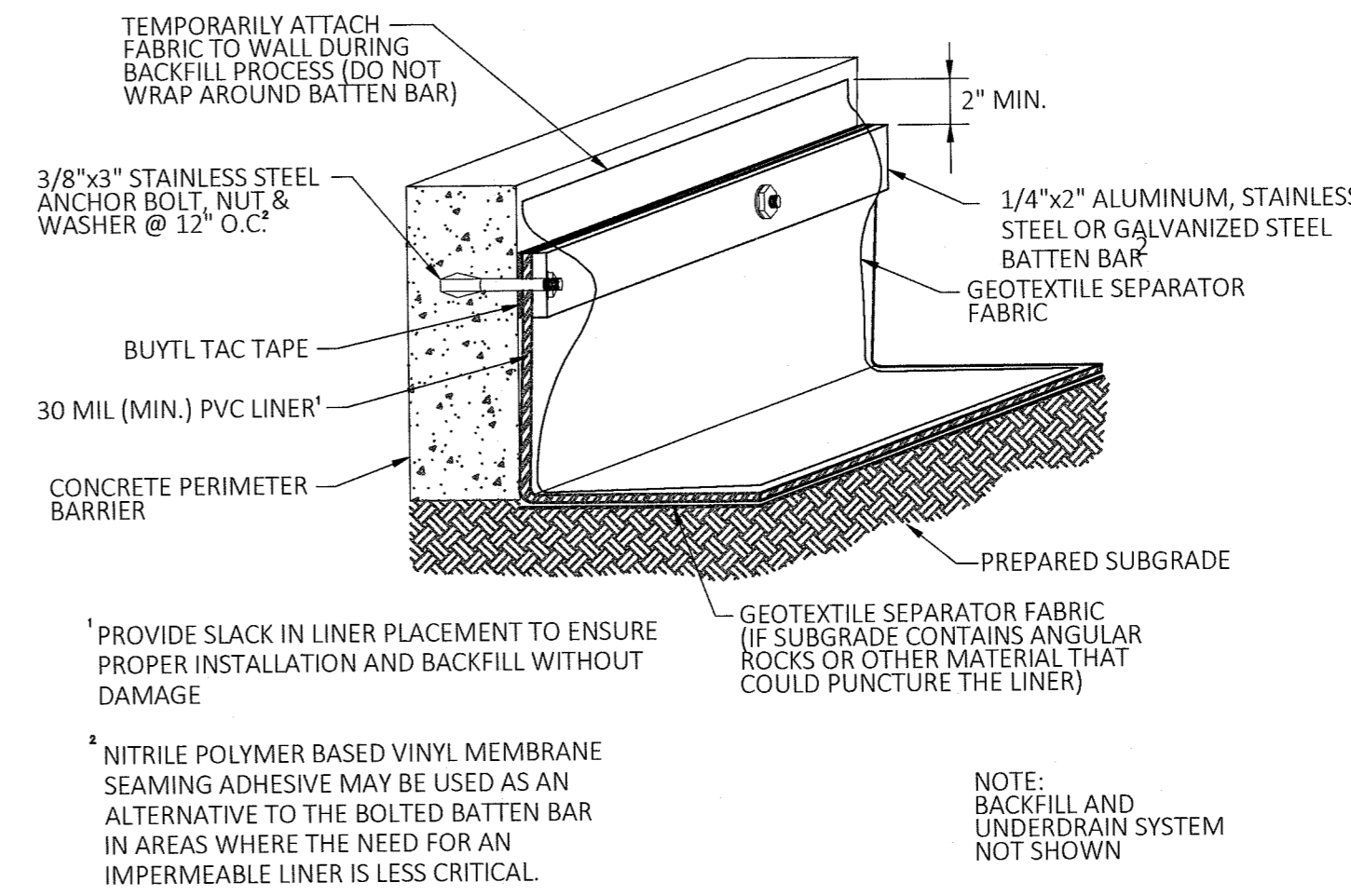
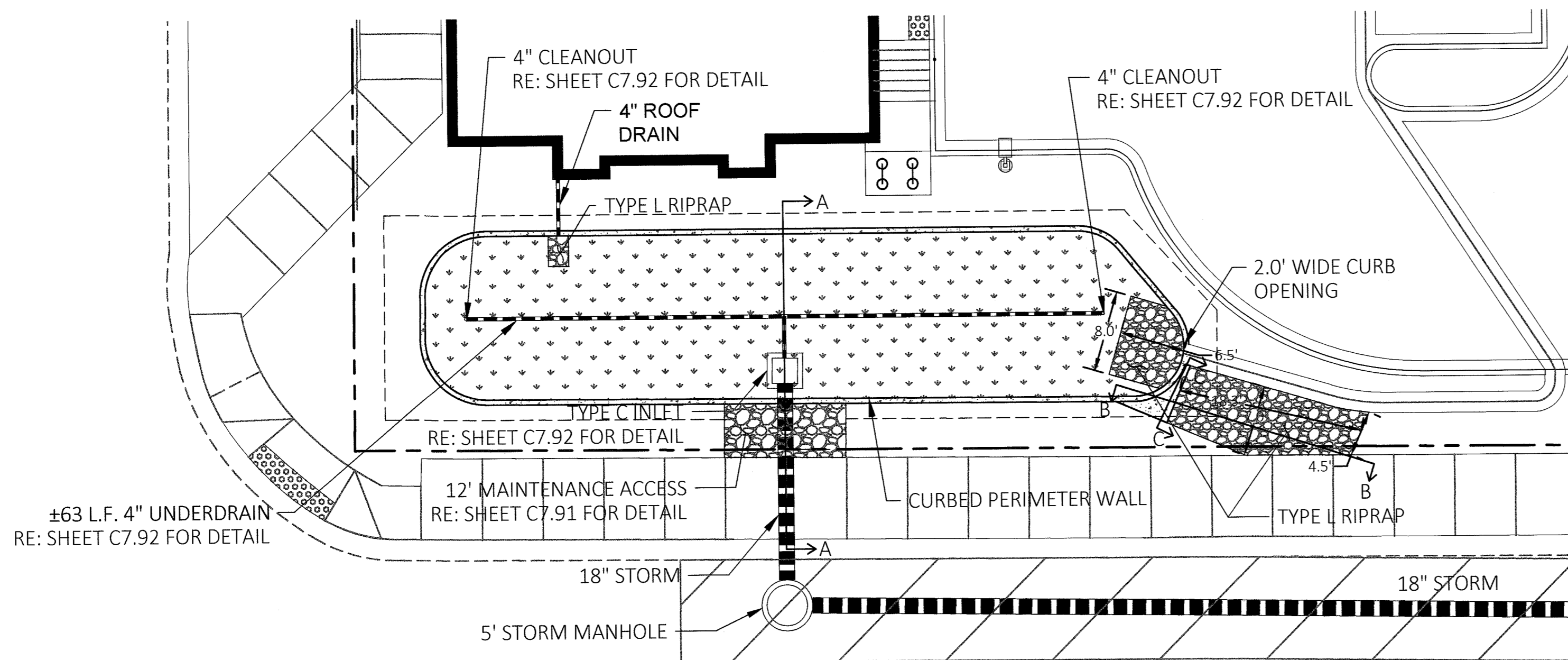
REINFORCED CONCRETE PIPE

STANDARD PLAN NO. M-603-2

Issued By: Project Development Branch on July 04, 2006

Sheet No. 1 of 1

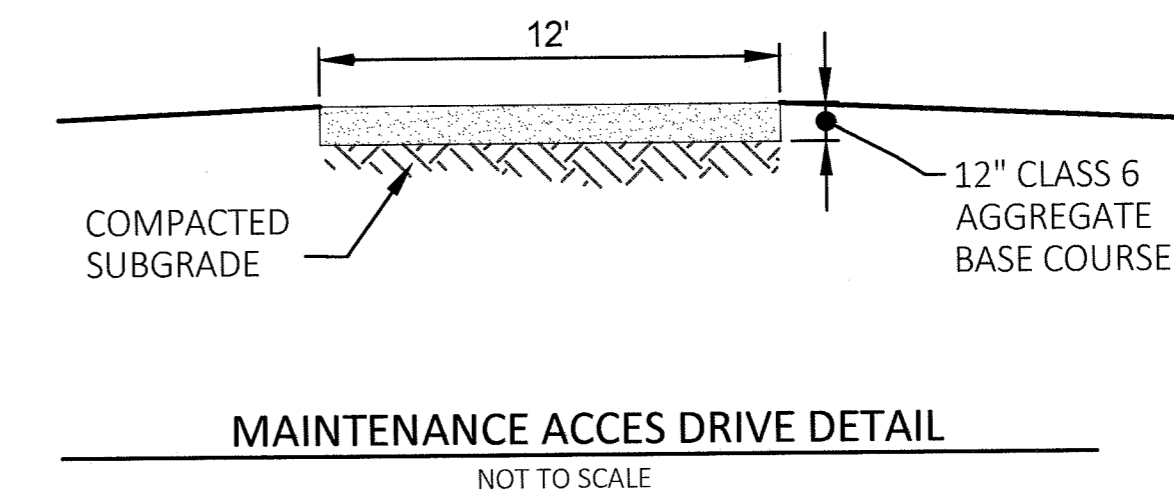




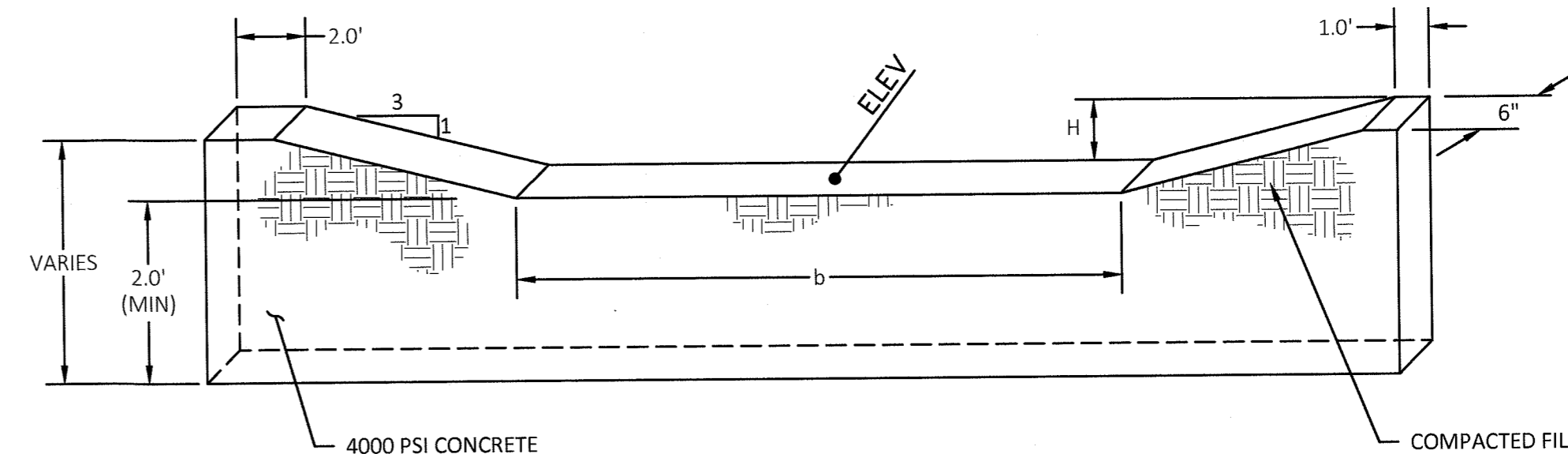
IMPERMEABLE LINER/CONCRETE CONNECTION DETAIL
NOT TO SCALE

GENERAL NOTES

- PERIMETER WALL SHALL BE CAST-IN-PLACE REINFORCED CONCRETE. PERIMETER WALL AND ALL OTHER STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
- IF IMPERMEABLE GEOMEMBRANE LINER IS INSTALLED BELOW DRAINAGE MEDIA, A LAYER OF NONWOVEN GEOTEXTILE SHALL BE PLACED ON EACH SIDE OF LINER. (SEE CONSTRUCTION DRAWINGS FOR ANY LINER REQUIREMENTS.) LINER SHALL BE ATTACHED TO PERIMETER WALL (ALONG WITH GEOTEXTILE) USING FABRIC ATTACHMENT DETAIL. ALL LINER SEAMS SHALL BE WELDED AND CHECKED FOR WATER TIGHTNESS. PVC BOOT SHALL BE USED FOR ALL UNDERDRAIN PENETRATIONS THROUGH LINER. WATER TIGHTNESS OF LINER SHALL NOT BE COMPROMISED DURING CONSTRUCTION OR LANDSCAPING OPERATIONS.
- UNDERDRAIN CLEANOUTS SHALL BE PROVIDED AT THE UPSTREAM END, AT EACH JUNCTION, AND AT A MAXIMUM SPACING OF 100 FEET. SEE SHEET C7.92 FOR ADDITIONAL UNDERDRAIN DETAILS.
- PLD SURFACE SHALL BE SEEDED WITH NATIVE TURF GRASS OR PLANTED WITH ORNAMENTAL CLUMP GRASSES AND/OR SMALL NATIVE SHRUBS. SEEDED AREAS SHALL BE PROTECTED WITH STRAW OR JUTE EROSION CONTROL BLANKET OR TURF ESTABLISHMENT MEDIUM (FLEXITERRA OR APPROVED EQUIVALENT) UNTIL GRASS COVER IS ESTABLISHED. PLANTS SHALL BE SPACED TO ALLOW 18-24" BETWEEN MATURE PLANTS FOR HAND RAKING OF SEDIMENT.
- AN IRRIGATION SYSTEM SHALL BE PROVIDED. IRRIGATION HEADS AND LATERALS SHALL BE LOCATED IN THE OUTSIDE 6-INCHES OF THE PLD SURFACE.
- SEE SHEET C7.92 FOR DETAILS AND SIGNAGE REQUIREMENTS.
- THE DRAINAGE MEDIA SHALL BE AASHTO #67 AGGREGATE AND THE GROWING MEDIA SHALL BE UDFCD RAIN GARDEN MIXTURE. MATERIAL SPECIFICATIONS FOR THE SELECTED BMP ARE LOCATED ON THE BMP SPECIFICATION SHEET, SHEET C7.93.



MAINTENANCE ACCESS DRIVE DETAIL
NOT TO SCALE



| | Q (cfs) | b (ft) | H (ft) | ELEV. (ft) |
|-----|---------|--------|--------|------------|
| PLD | 6.57 | 6.0 | 0.50 | 5573.02 |

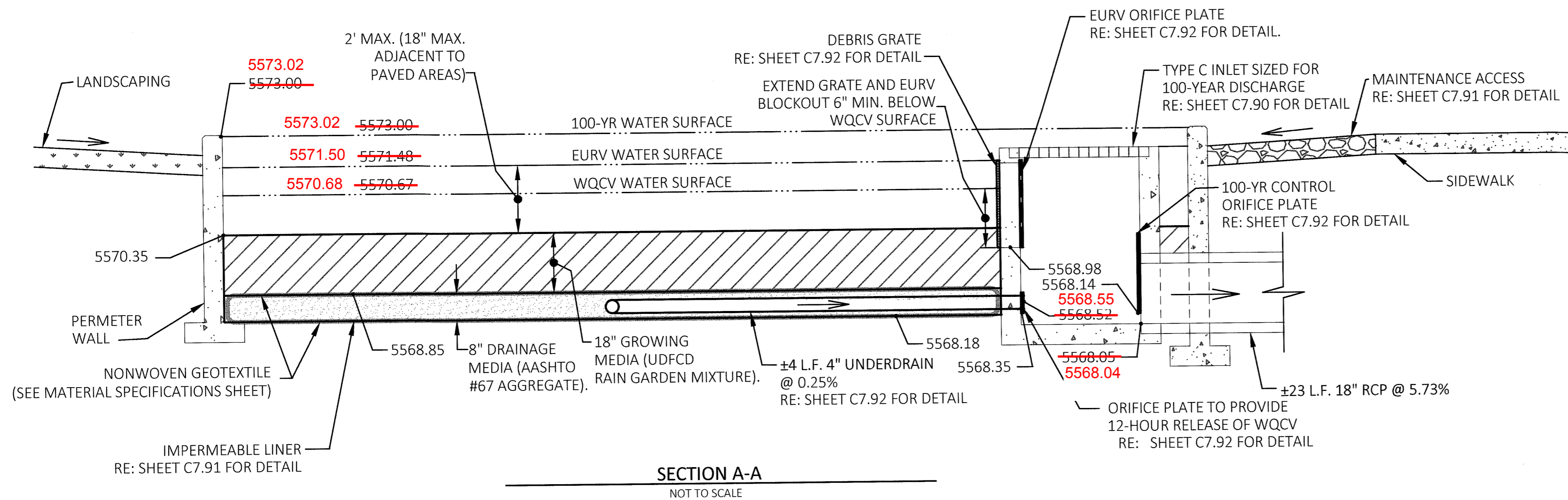
SECTION C-C
EMERGENCY OVERFLOW WEIR
NOT TO SCALE

Design and 'As-constructed' Pond volumes:

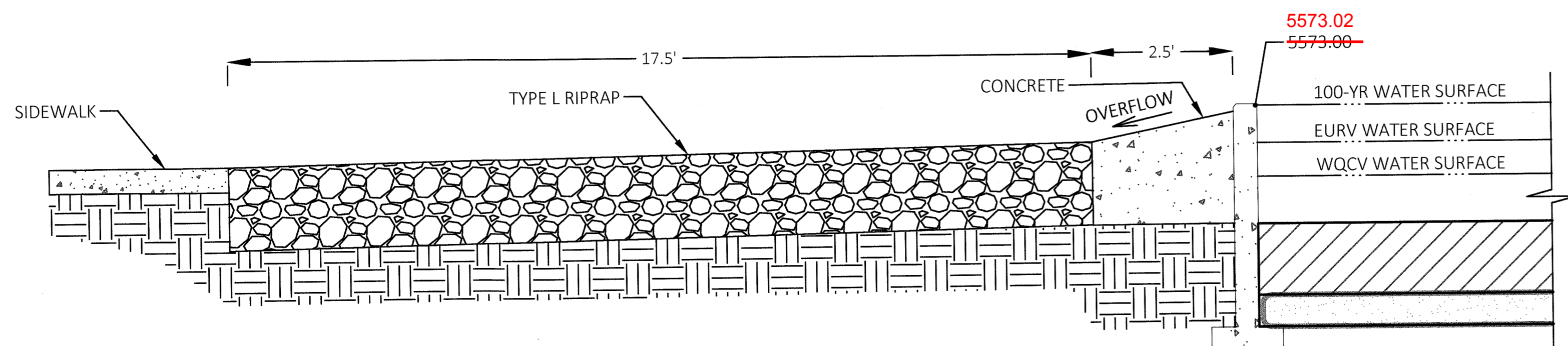
| TOTAL POND VOLUME = | 0.070 | ACRE-FEET | Design | | As-constructed | |
|---------------------------------|--------|-----------|--------|-----------|----------------|-----------|
| | | | VOLUME | ELEVATION | VOLUME | ELEVATION |
| WQCV= | 0.0086 | | 0.0086 | 5570.67 | 0.0086 | 5570.68 |
| EURV= | 0.030 | | 0.030 | 5571.48 | 0.030 | 5571.50 |
| 100YR VOLUME REQ'D (Plus WQCV)= | 0.070 | | 0.070 | 5573.00 | 0.070 | 5573.02 |

E. EASTER AVENUE
60' R.O.W.

STANDARD PLD - PLAN
SCALE 1:10



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE



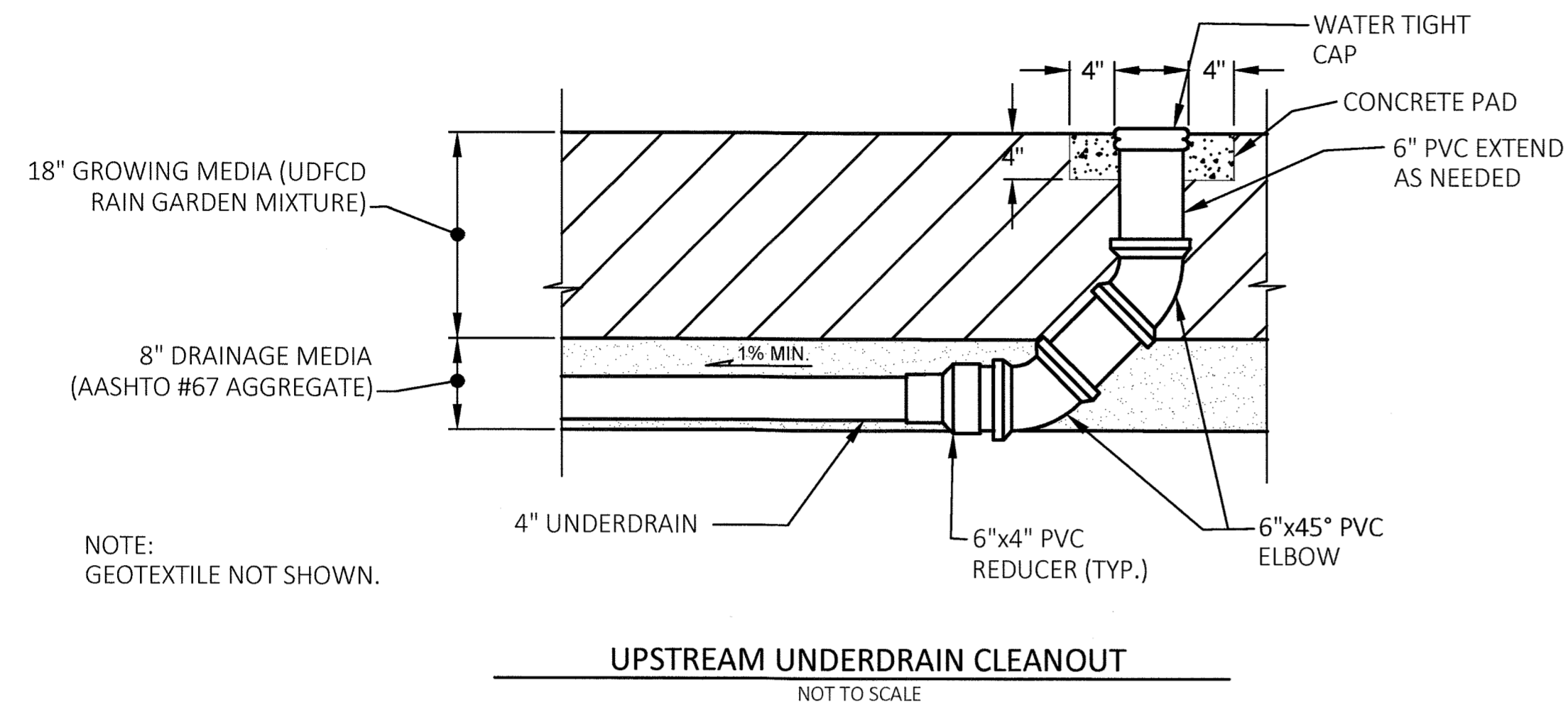
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Record Drawing

As example

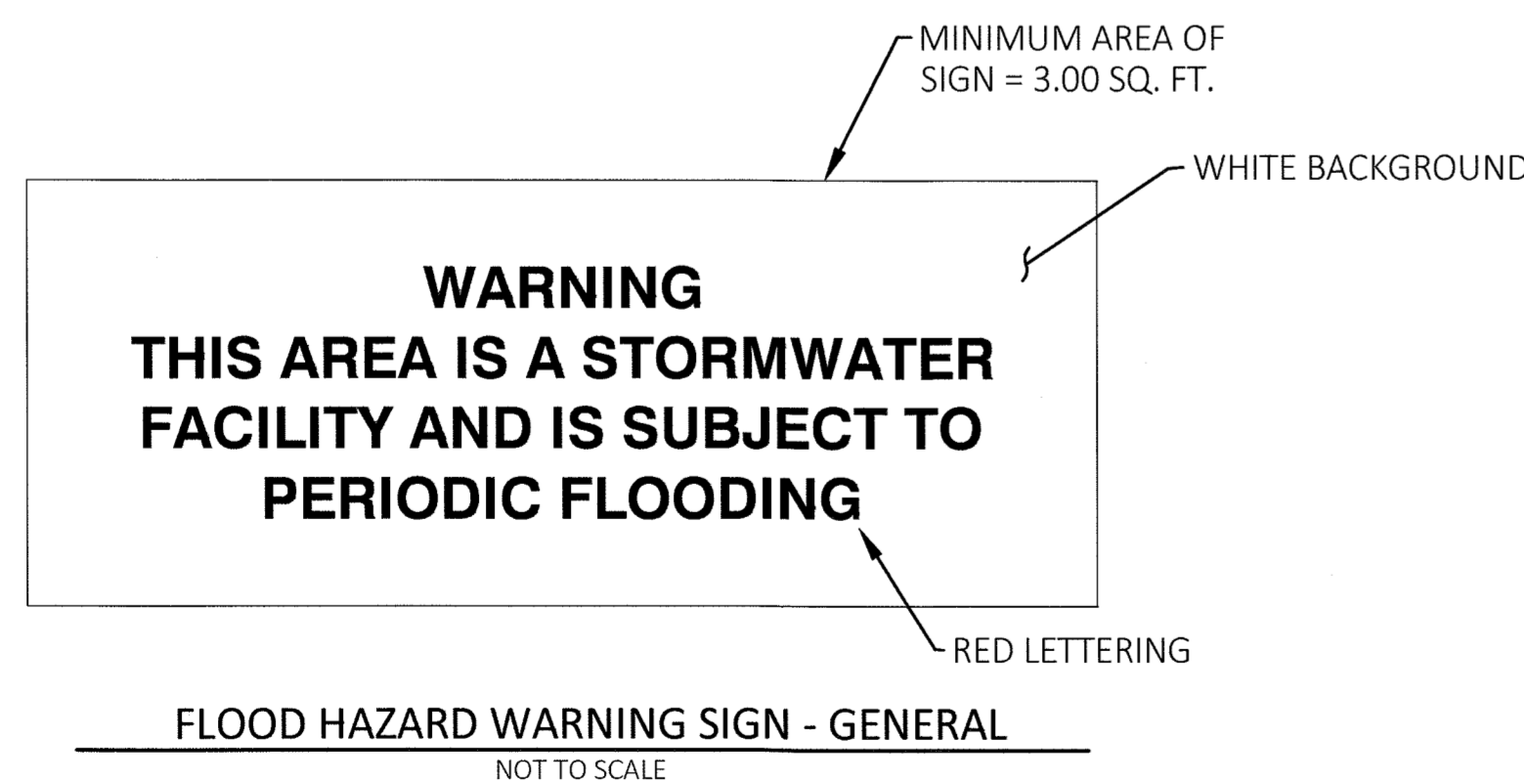
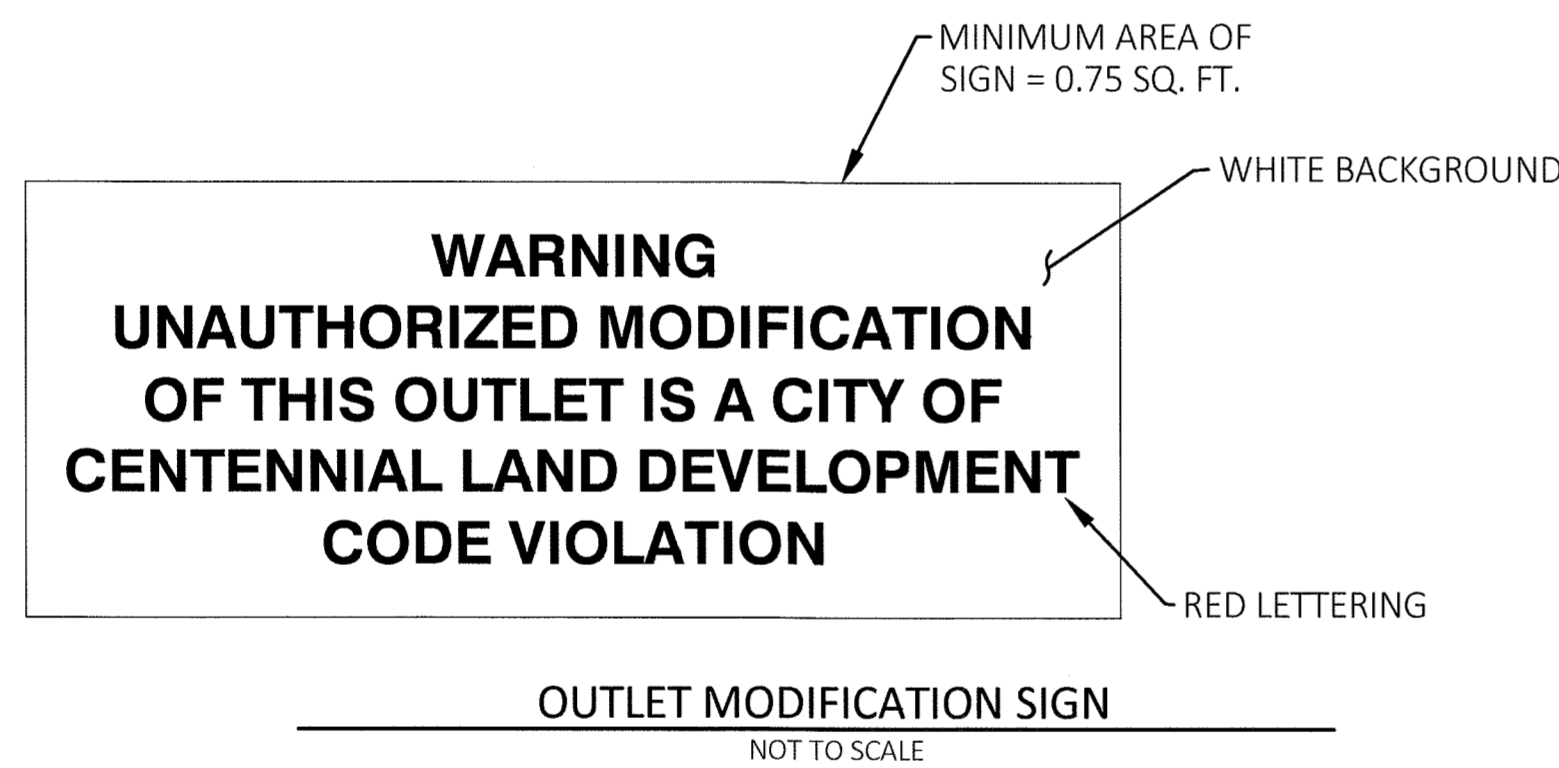


REVIEW AND ACCEPTANCE OF CONSTRUCTION PLANS AND SPECIFICATIONS



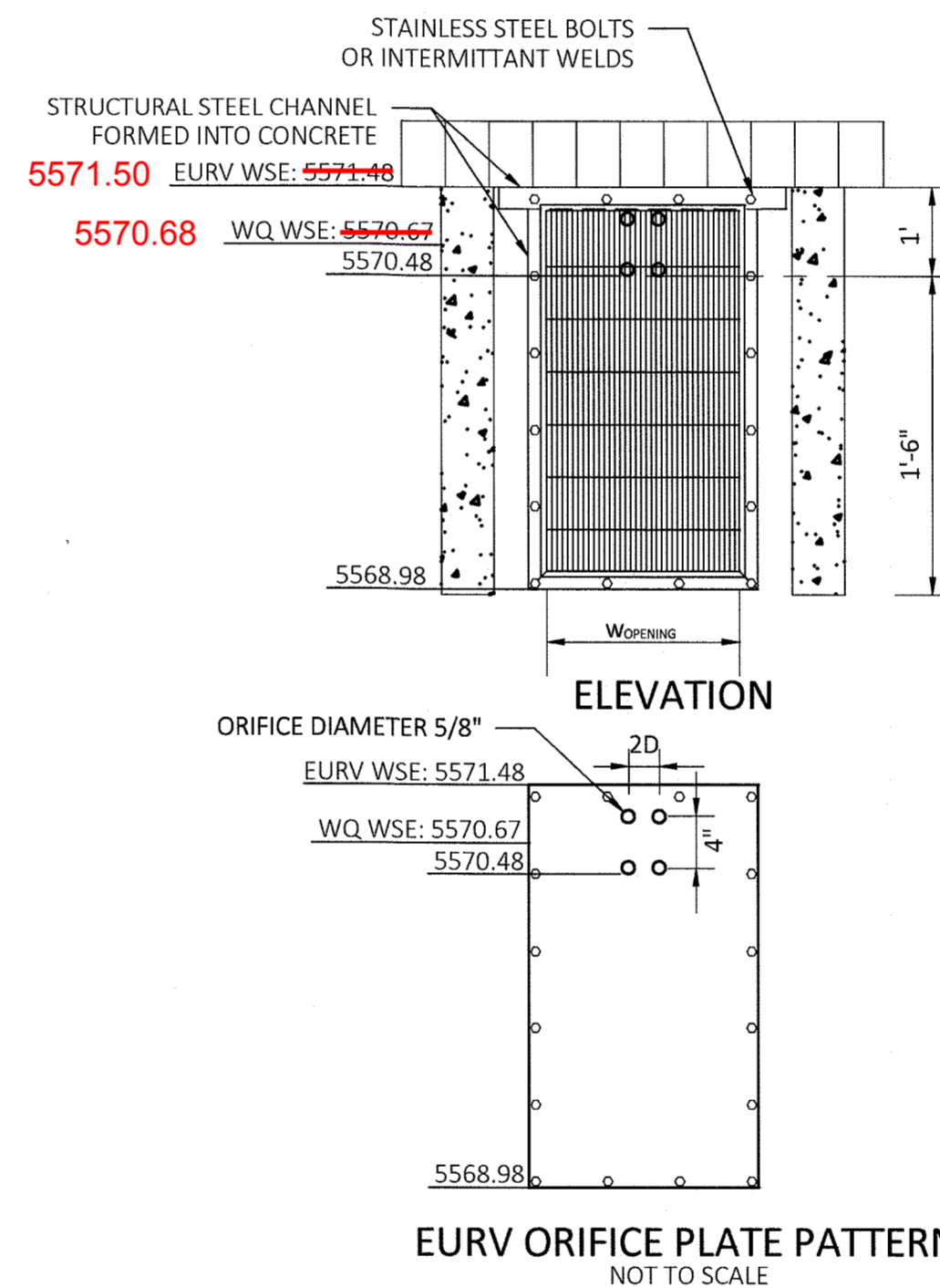
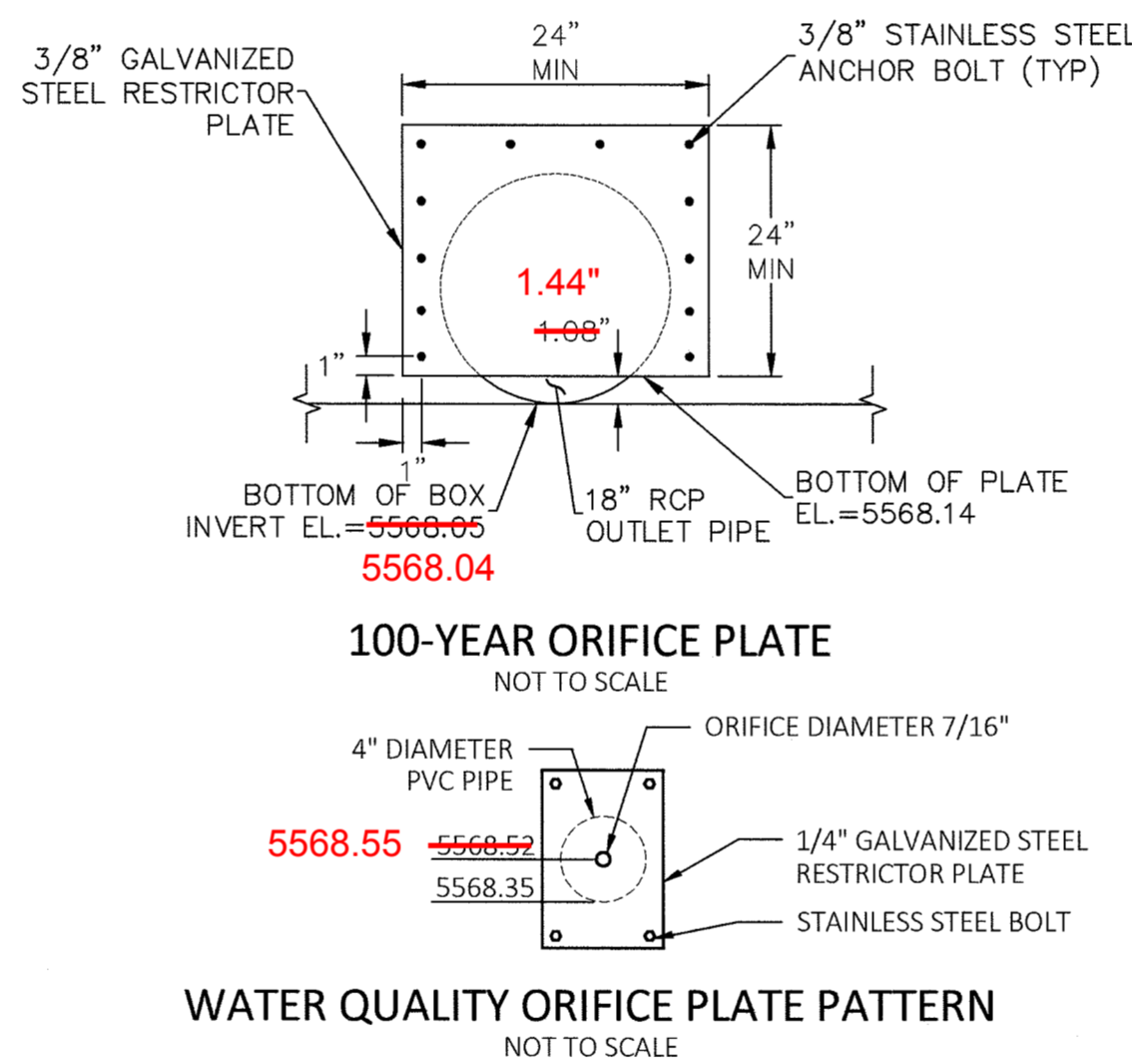
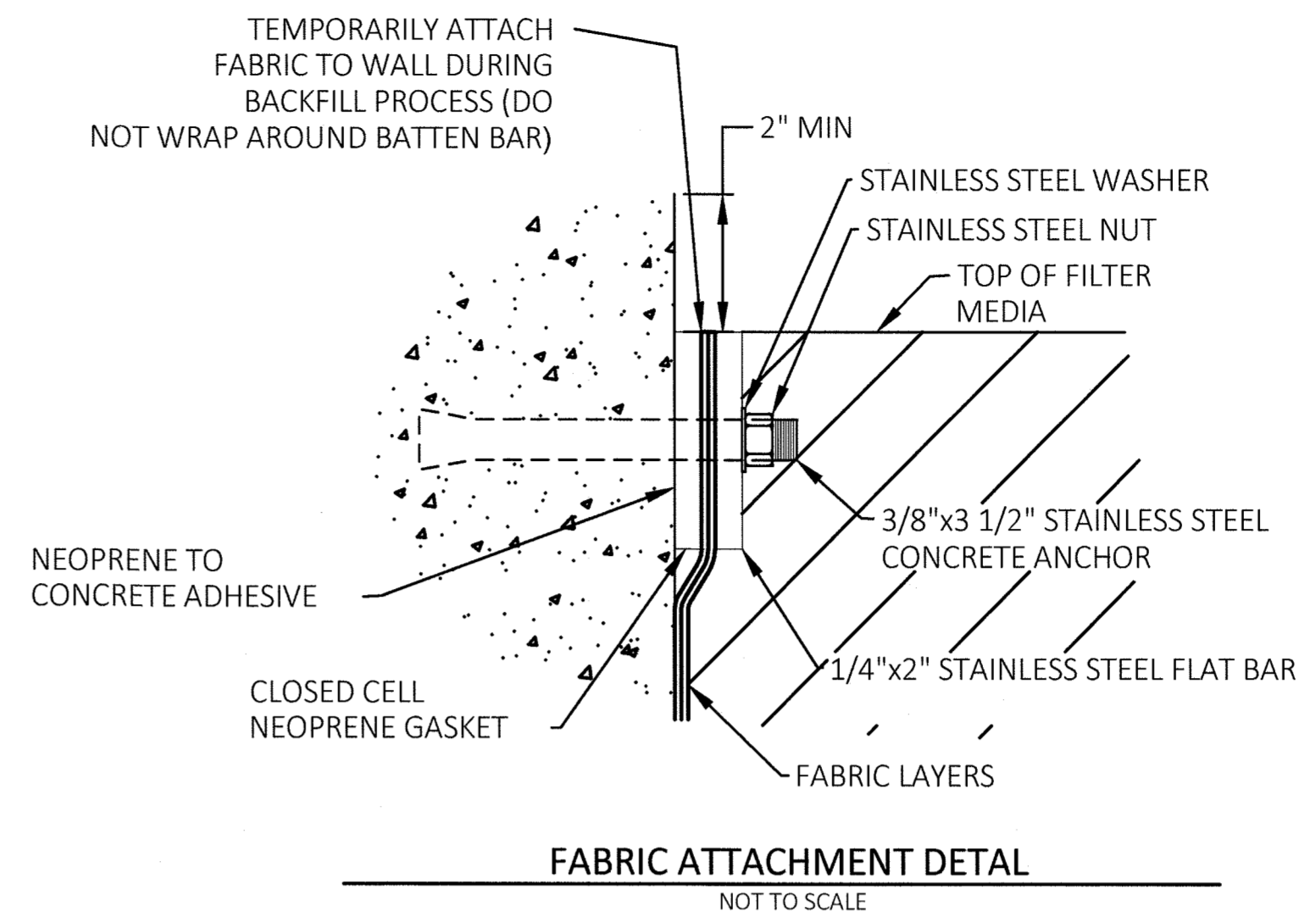
UNDERDRAIN CLEANOUT NOTES

1. ALL 90° BENDS IN UNDERDRAIN SHALL BE MADE UP OF TWO 45° BENDS WITH A 1'(MIN) STRAIGHT PIPE IN BETWEEN.
2. APPROVED MATERIAL SPECIFICATIONS FOR THE SELECTED BMP ARE LOCATED ON THE BMP MATERIAL SPECIFICATION SHEET, SHEET C7.93.



SIGNAGE NOTES

1. OUTLET MODIFICATION SIGN SHALL BE ATTACHED TO OR POSITIONED NEARBY ALL PLD OUTLETS.
2. FLOOD HAZARD WARNING SIGNS SHALL BE PROVIDED IDENTIFYING THE PLD PONDING AREA. THE GENERAL SIGN SHALL BE USED FOR PLD'S IN NON-PARKING LOT AREAS.



ORIFICE PLATE NOTES

1. MINIMIZE THE NUMBER OF COLUMNS.
2. PROVIDE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE.
3. BOLT PLATE TO CONCRETE 12" MAX. ON CENTER.

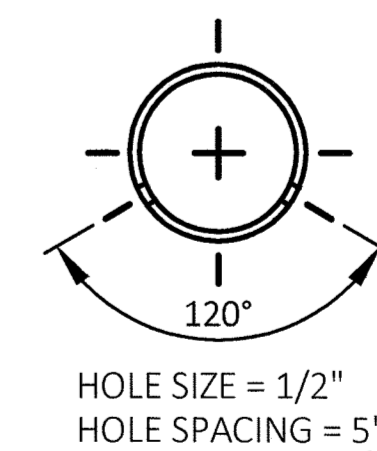
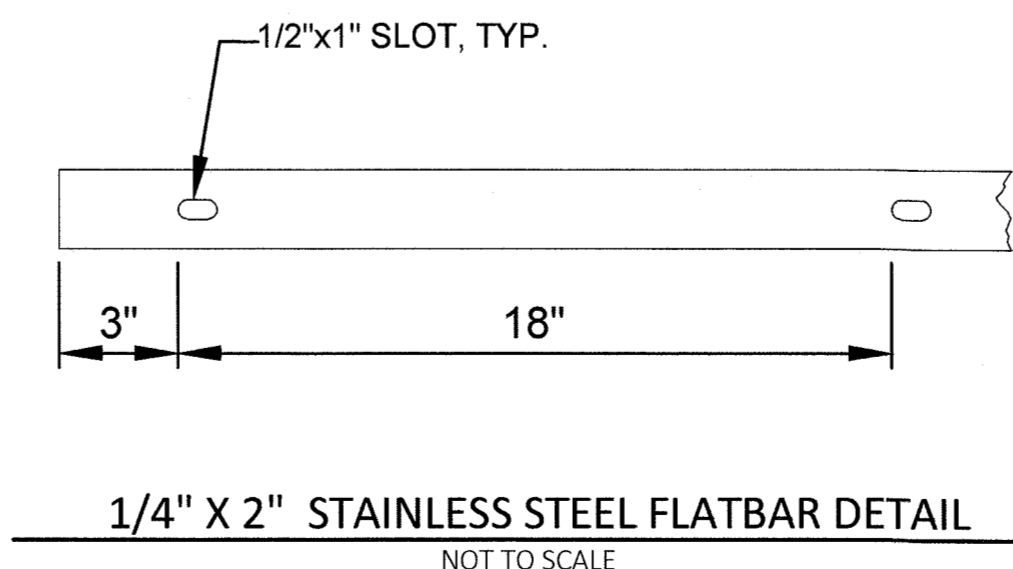
EURV AND WQCV DEBRIS GRATE NOTES

1. WELL-SCREEN TRASH RACKS SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
2. BAR GRATE TRASH RACKS SHALL BE ALUMINUM AND SHALL BE BOLTED USING STAINLESS STEEL HARDWARE.
3. TRASH RACK WIDTHS ARE FOR SPECIFIED TRASH RACK MATERIAL. FINER WELL-SCREEN OR MESH SIZE THAN SPECIFIED IS ACCEPTABLE, HOWEVER, TRASH RACK DIMENSIONS NEED TO BE ADJUSTED FOR MATERIALS HAVING A DIFFERENT OPEN AREA/GROSS AREA RATIO (R VALUE).
4. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

OVERFLOW DEBRIS GRATE NOTES

1. ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS.
2. TRASH RACKS SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
3. TRASH RACKS SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
4. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

ORIFICE PLATE AND DEBRIS GRATE DETAIL
NOT TO SCALE



UNDERDRAIN NOTES

1. ALL PERFORATED PIPE AND FITTINGS SHALL BE SCHEDULE 40 AND SHALL MEET ASTM D2729 OR ASTM F758.

Record Drawing

WITH AASHTO #67 AGGREGATE. SEE



PREPARED UNDER THE DIRECT SUPERVISION OF TIFFANY D. WATSON, LICENSE NO. 40360, PROFESSIONAL ENGINEER, STATE OF COLORADO.

SITE DEVELOPMENT CONSTRUCTION DOCUMENTS
CHASE BANK
AT CHERRY KNOLLS SHOPPING CENTER
CENTENNIAL, CO

| | |
|-------------|----------------|
| DATE | 02.27.15 |
| DESCRIPTION | APPROVED PLANS |
| DATE | |
| DESCRIPTION | |
| DATE | |
| DESCRIPTION | |



BMP MATERIAL SPECIFICATIONS:

SAND/PEAT MIXTURE

SAND/PEAT MIXTURE SHALL BE 85% ASTM C-33 SAND AND 15% PEAT.

UDFCD RAIN GARDEN MIXTURE

GROWING MEDIA MIXTURE SHALL BE 85% COARSE SAND (CDOT CLASS C FILTER MATERIAL OR ASTM C-33 SAND) AND 15% COMPOST MIXTURE BY VOLUME. COMPOST MIXTURE SHALL CONSIST OF 50% CLASS 1 STA REGISTERED COMPOST (APPROXIMATE BULK DENSITY 1000 LBS/CY) AND 50% LOOSELY PACKED SHREDDED PAPER (APPROXIMATE BULK DENSITY 50 TO 100 LBS/CY).

ASTM C-33 SAND

| SIEVE SIZE | MASS PERCENT PASSING |
|-----------------|----------------------|
| 9.5mm (3/8") | 100 |
| 4.75mm (NO. 4) | 95-100 |
| 2.36mm (NO. 8) | 80-100 |
| 1.18mm (NO. 16) | 50-85 |
| 600µm (NO. 30) | 25-60 |
| 300µm (NO. 50) | 5-30 |
| 150µm | 0-10 |

CDOT CLASS C FILTER MATERIAL

CLASS C FILTER MATERIAL DOES NOT REQUIRE GEOTEXTILE FABRIC. IF UNDERDRAIN IS REQUIRED SLOTTED PIPE SHALL BE USED. (SEE UNDERDRAIN SPECIFICATIONS.)

| SIEVE SIZE | MASS PERCENT PASSING |
|-----------------|----------------------|
| 19.0mm (3/4") | 100 |
| 4.75mm (NO. 4) | 60-100 |
| 300µm (NO. 50) | 10-30 |
| 150µm (NO. 100) | 0-10 |
| 75µm (NO. 200) | 0-3 |

SANDY LOAM

SANDY LOAM SHALL CONSIST OF NATIVE TOPSOIL (SURFACE O- AND A-HORIZONS HAVING MAXIMUM ROOT MASS, ORGANIC MATTER, AND BIOLOGICAL ACTIVITY) STRIPPED FROM GRASSY AREAS OF THE SITE OR A NEARBY SITE AND SHALL MEET THE FOLLOWING PROPERTIES:

ORGANIC MATTER: 2.0% OR GREATER

SOIL TEXTURE: SANDY LOAM OR SANDY CLAY LOAM MEETING THE FOLLOWING COMPONENT RANGES:

| | |
|------------------------|-----------|
| SAND OR COARSER | 50 - 80 % |
| SILT | 5 - 40 % |
| CLAY | 5 - 25 % |
| COARSE PARTICLES > 2MM | 0 - 20 % |

SALTS, SALINITY (ELECTRICAL CONDUCTIVITY, EC): 0 TO 2 MILLI-MHOS PER CENTIMETER (MMHOS/CM) OR DECI-SIEMENS PER METER (DS/M) (MMHOS/CM ARE EQUIVALENT TO DS/M)

SODIUM (SODIUM ADSORPTION RATIO, SAR): 0 TO 4

ACIDITY, ALKALINITY (PH): 6.5 TO 7.5

TO DETERMINE ADEQUACY OF SANDY LOAM, AT LEAST THREE REPRESENTATIVE SAMPLES OF THE NATIVE TOPSOIL SHALL RECEIVE A TEXTURAL ANALYSIS AND STANDARD AGRONOMIC TEST BY A QUALIFIED SOIL LAB. IF ORGANIC MATTER OR PH IS OUTSIDE OF THE SPECIFIED RANGE, AMENDMENTS MAY BE RECOMMENDED FOR REVIEW AND APPROVAL OF SEMSWA. ANY RECOMMENDATION FOR AMENDMENTS SHALL INCLUDE DOCUMENTATION OF AMENDMENT PROPERTIES, RATE OF APPLICATION, AND METHOD OF INCORPORATION. THE USE OF CHEMICAL FERTILIZERS OTHER THAN AN ORGANIC SLOW-RELEASE TYPE SUCH AS BIOSOL BY ROCKY MOUNTAIN BIO PRODUCTS IS NOT PERMITTED. THE USE OF ORGANIC MATTER THAT WOULD SIGNIFICANTLY INCREASE SOIL SALINITY IS NOT PERMITTED.

AASHTO #67 AGGREGATE

AASHTO #67 SHALL BE USED WITH NONWOVEN GEOTEXTILE AND PERFORATED PIPE. (SEE UNDERDRAIN SPECIFICATIONS.)

| SIEVE SIZE | MASS PERCENT PASSING |
|----------------|----------------------|
| 25.0mm (1") | 100 |
| 19.0mm (3/4") | 90-100 |
| 9.5mm (3/8") | 20-55 |
| 4.72mm (NO. 4) | 0-10 |
| 2.38 (NO. 8) | 0-5 |

CLASS 1 COMPOST

| PROPERTY | CRITERION |
|-------------------------------------|--|
| RESPIROMETRY | STABLE TO VERY STABLE |
| AMMONIA N/ NITRATE N | <4 |
| CARBON TO NITROGEN RATIO | <12 |
| PERCENTAGE OF GERMINATION/ VIGOR | 80+/80+ |
| pH - ACCEPTABLE RANGE | 6.0-8.4 |
| CHEMICAL CONTAMINANTS AND PATHOGENS | MEETS OR EXCEEDS US EPA CLASS A STANDARD |

NONWOVEN GEOTEXTILE

| PROPERTY | CRITERION | | TEST METHOD |
|-----------------------------|-----------------|--------------------------|-------------|
| | ELONGATION <50% | ELONGATION >50% | |
| GRAB STRENGTH | 800N (180 LBS) | 510N (115 LBS) | ASTM D4632 |
| PUNCTURE RESISTANCE | 310N (70 LBS) | 180N (40 LBS) | ASTM D6241 |
| TRAPEZOIDAL TEAR STRENGTH | 310N (70 LBS) | 180N (40 LBS) | ASTM D6241 |
| APPARENT OPENING SIZE | | 0.3mm (NO. 50) | ASTM D4751 |
| PERMITTIVITY | | 0.02 sec-1 DEFAULT VALUE | ASTM D4491 |
| PERMEABILITY | | k FABRIC > k SOIL cm/sec | ASTM D4491 |
| UV DEGRADATION AT 500 HOURS | | 50% STRENGTH | ASTM D4355 |

GEOMEMBRANE

| PROPERTY | CRITERION | TEST METHOD |
|----------------------------|-------------------------|----------------------|
| THICKNESS | ±5, % TOLERANCE | ASTM 1593 |
| TENSILE STRENGTH | 12.25 kN/m, (70 lbs/in) | ASTM D882, METHOD B |
| MODULUS AT 100% ELONGATION | 5.25 kN/m, (30 lbs/in) | ASTM D882, METHOD B |
| ULTIMATE ELONGATION | 350% | ASTM D882 METHOD A |
| TEAR RESISTANCE | 38 N, (8.5 lbs) | ASTM D1004 |
| VOLATILE LOSS | 0.7, 5 MAX | ASTM D1203, METHOD A |
| PINHOLES | 1 / 8m² MAX | NA |
| BONDED SEAM STRENGTH | 80% OF TENSILE STRENGTH | NA |

PVC PIPE

ALL PVC PIPE AND FITTINGS SHALL BE SCHEDULE 40 AND SHALL MEET ASTM D2729 OR ASTM F758.

SLOTTED PIPE UNDERDRAIN

ALL SLOTTED PIPE AND FITTINGS SHALL BE SCHEDULE 40 AND SHALL MEET ASTM D2729 OR ASTM F758. SLOTTED PIPE UNDERDRAIN SHALL BE USED ONLY WITH CDOT CLASS C FILTER MATERIAL. (SEE CDOT CLASS C FILTER MATERIAL SPECIFICATIONS.)

DIMENSIONS FOR SLOTTED PIPE

| PIPE DIAMETER | SLOT LENGTH* | MAXIMUM SLOT WIDTH | SLOT CENTERS* | OPEN AREA* (PER FOOT) |
|---------------|--------------|--------------------|---------------|-----------------------|
| 4" | 1-1/16" | 0.032" | .413" | 1.90 in² |
| 6" | 1-3/8" | 0.032" | .516" | 1.98 in² |

* SOME VARIATION IN THESE VALUES IS ACCEPTABLE AND IS EXPECTED FROM VARIOUS PIPE MANUFACTURERS. BE AWARE THAT BOTH INCREASED SLOT LENGTH AND DECREASED SLOT CENTERS WILL BE BENEFICIAL TO HYDRAULICS BUT DETRIMENTAL TO THE STRUCTURE OF THE PIPE.

BMP MATERIAL SELECTION TABLE

| | | PORUS LANDSCAPE DETENTION | SAND FILTER BASIN | GRASS SWALE | GRASS BUFFER | MODIFIED EXTENDED DETENTION BASIN |
|----------------|--|---------------------------|-------------------|-------------|--------------|-----------------------------------|
| GROWING MEDIA | SAND/PEAT (85%/15%) | ✓ | | ✓ | ✓ | ✓ |
| | UDFCD RAIN GARDEN MIXTURE | ✓ | | ✓ | ✓ | ✓ |
| | SANDY LOAM | | | ✓ | ✓ | ✓ |
| FILTER MEDIA | ASTM C-33 SAND | | ✓ | ✓ | ✓ | |
| | CDOT CLASS C FILTER MATERIAL | | ✓ | ✓ | ✓ | |
| DRAINAGE MEDIA | AASHTO #67 WITH NONWOVEN GEOTEXTILE & PERFORATED PIPE UNDERDRAIN | ✓ | ✓ | ✓ | ✓ | |
| | CDOT CLASS C FILTER MATERIAL WITH SLOTTED PIPE UNDERDRAIN | ✓ | ✓ | ✓ | ✓ | |

NOTE:
BMP MATERIAL SELECTION TABLE REPRESENTS ALLOWED MATERIAL ALTERNATIVES FOR EACH BMP.
ONLY ONE MATERIAL ALTERNATIVE SHALL BE CHOSEN FOR EACH LAYER.