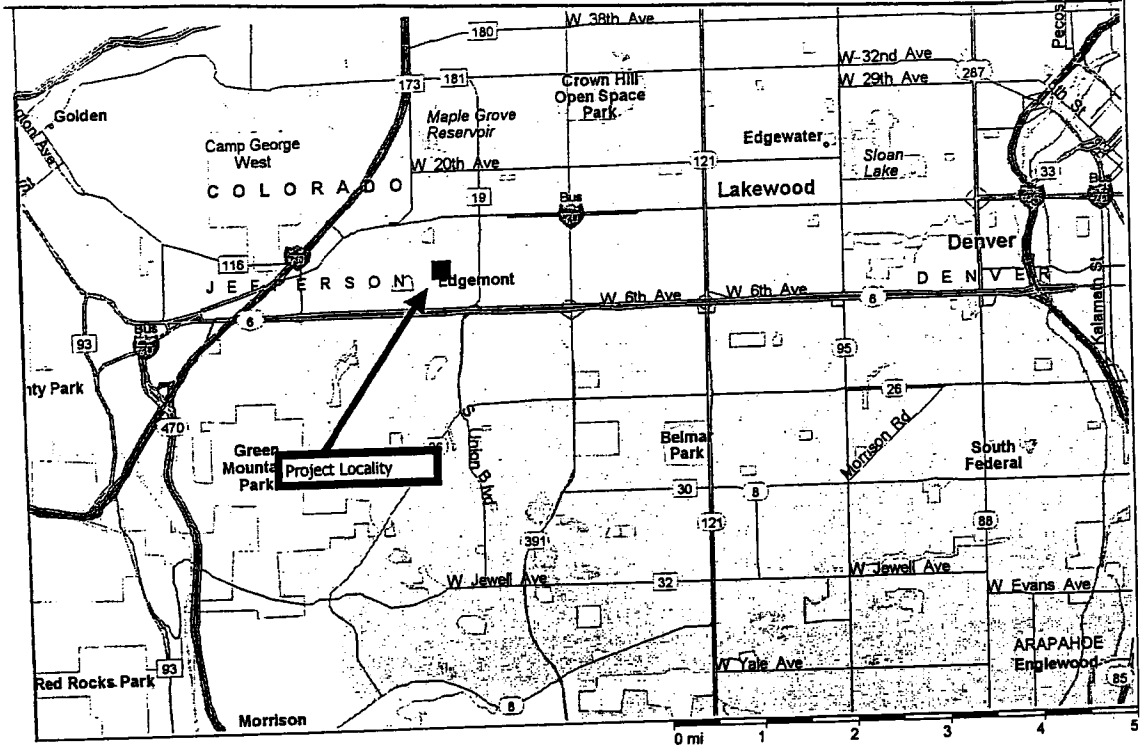
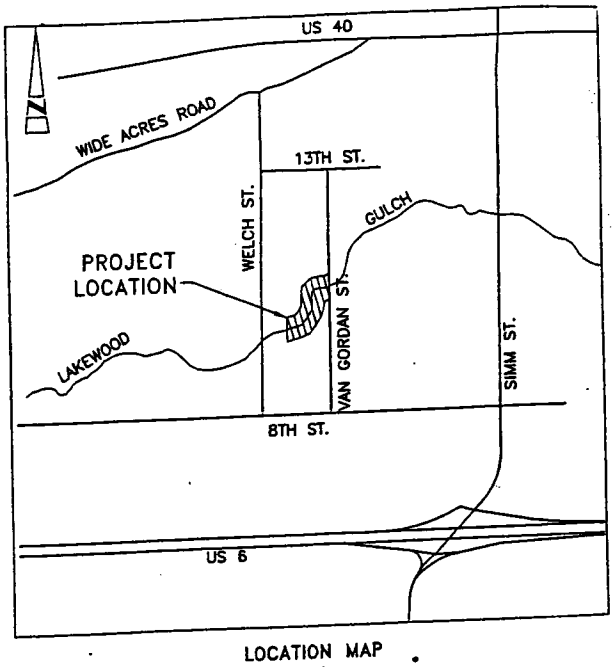
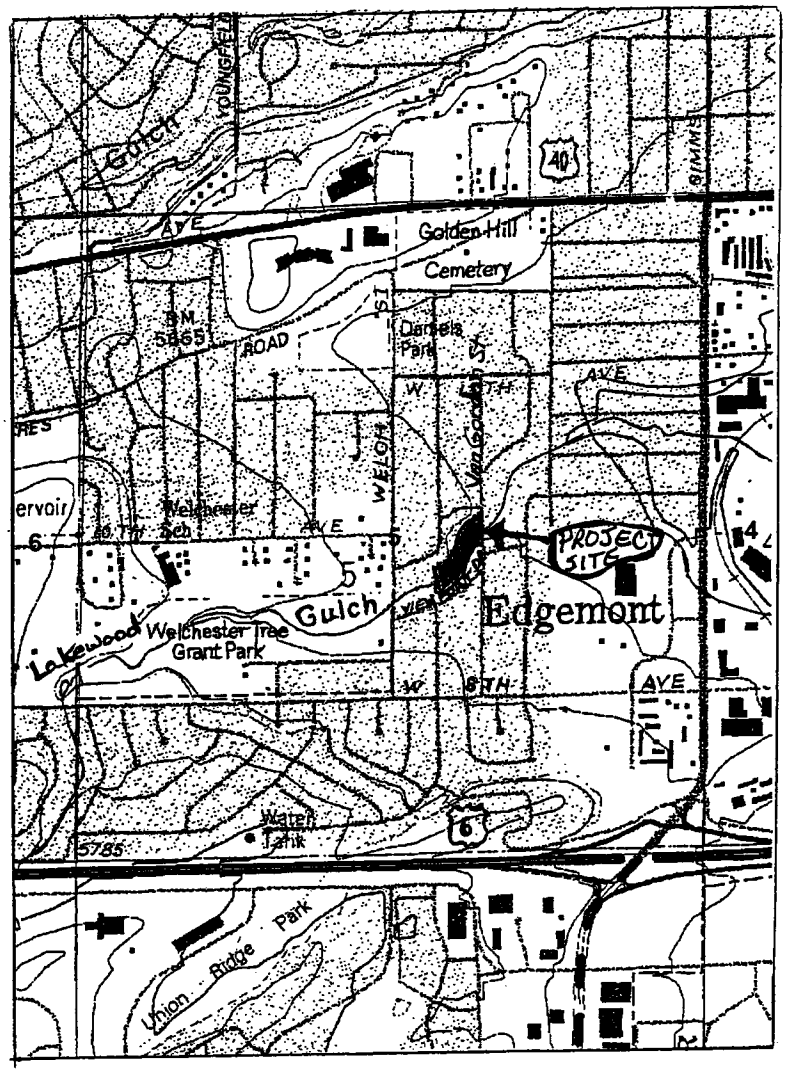



LOCATION MAP
N.T.S.



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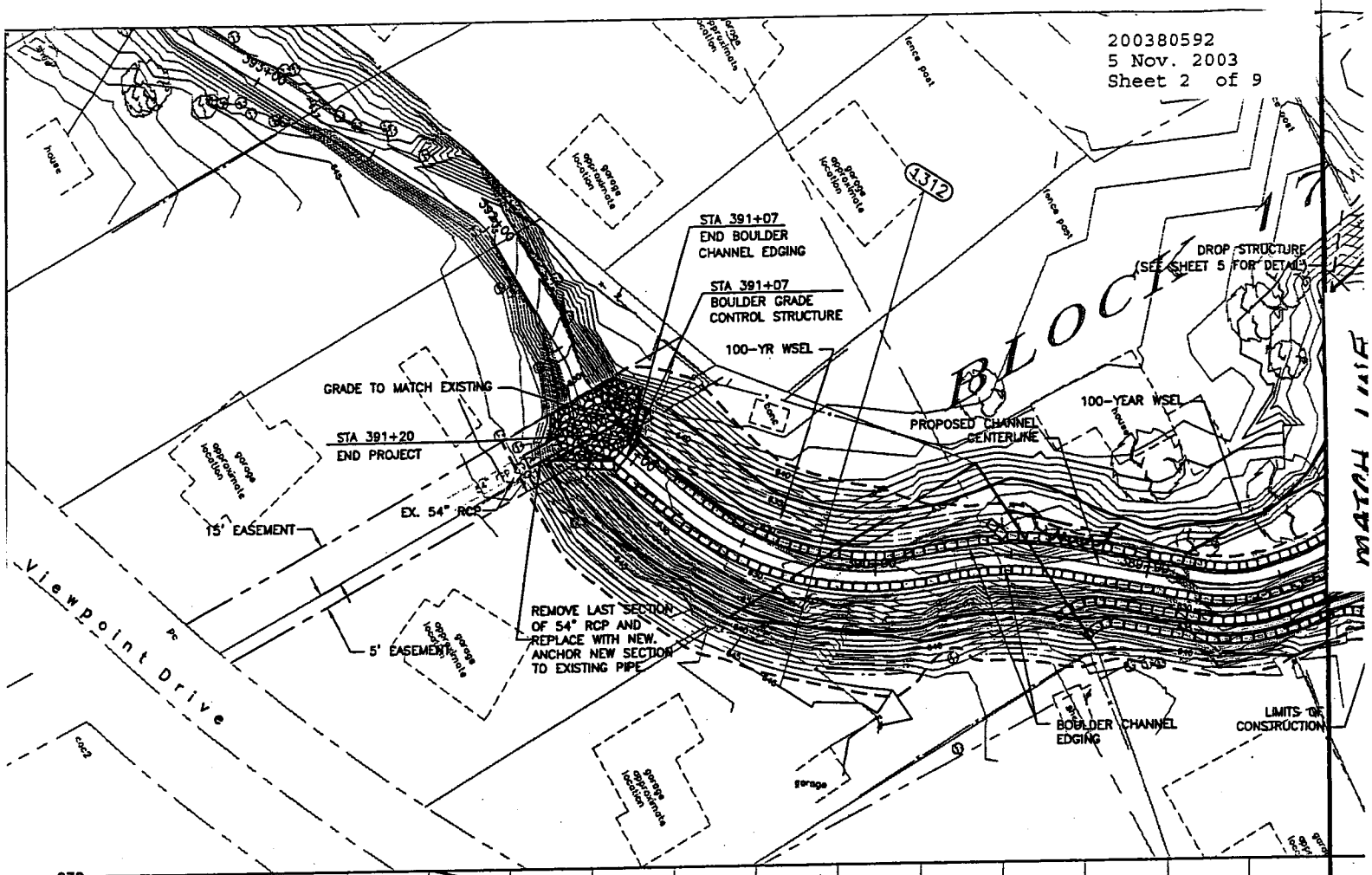
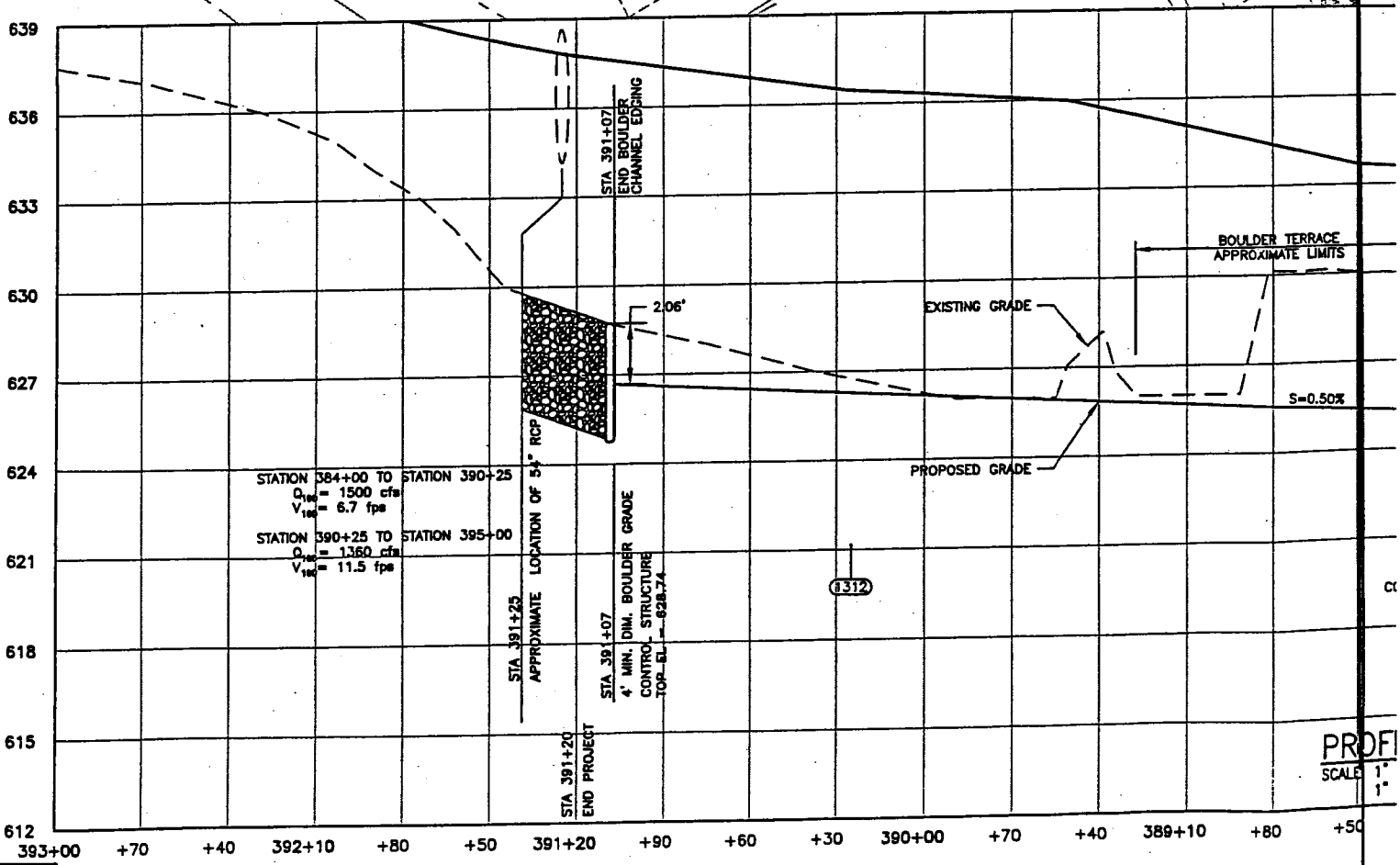
Sheet 2 of 9




| | |
|---|---|
| DESIGN BY: | DRR |
| DRAWN BY: | GJH |
| DATE: | 9/26/03 |

PLANS FOR PROPOSED
CHANNEL REHABILITATION

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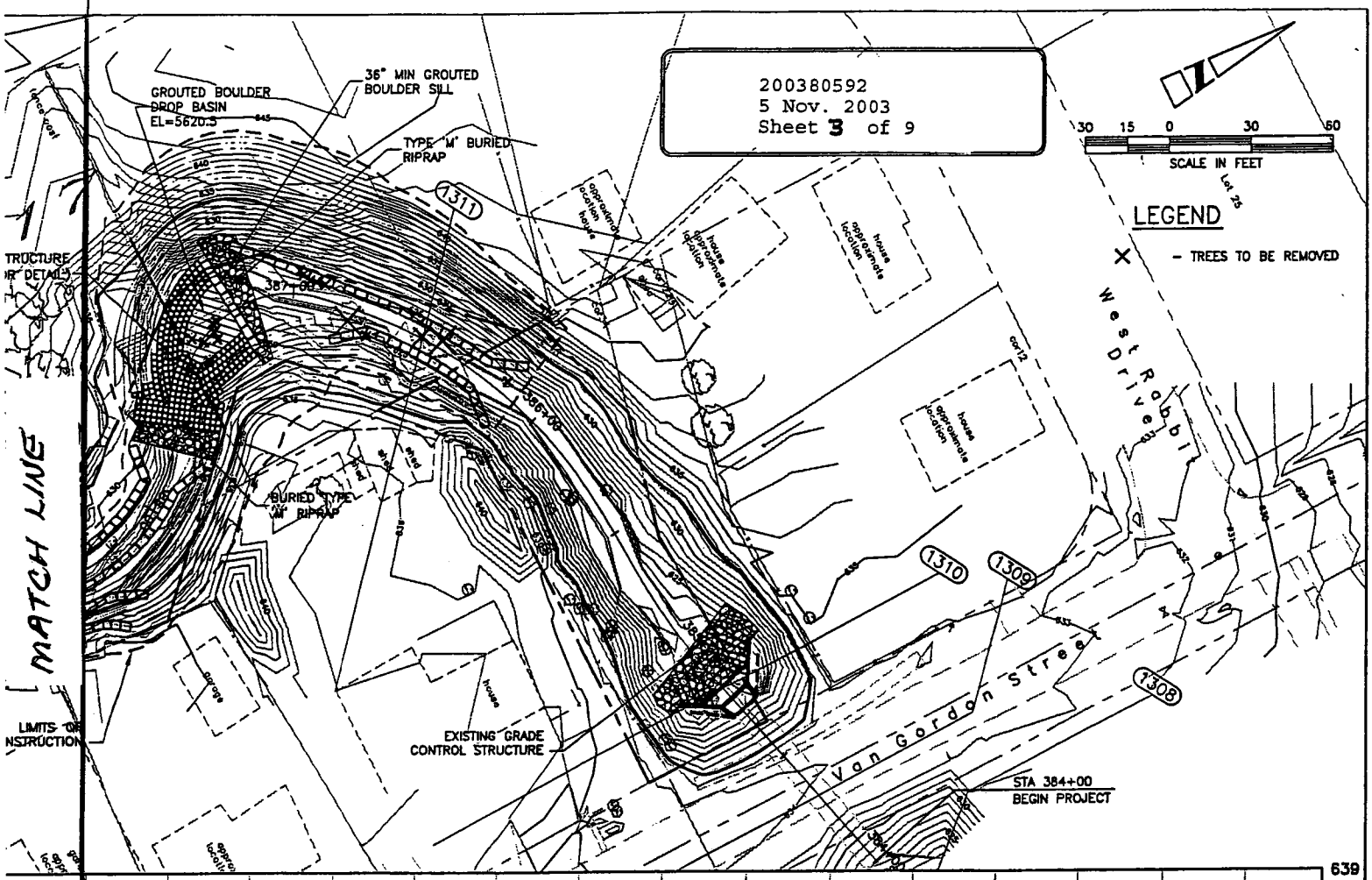
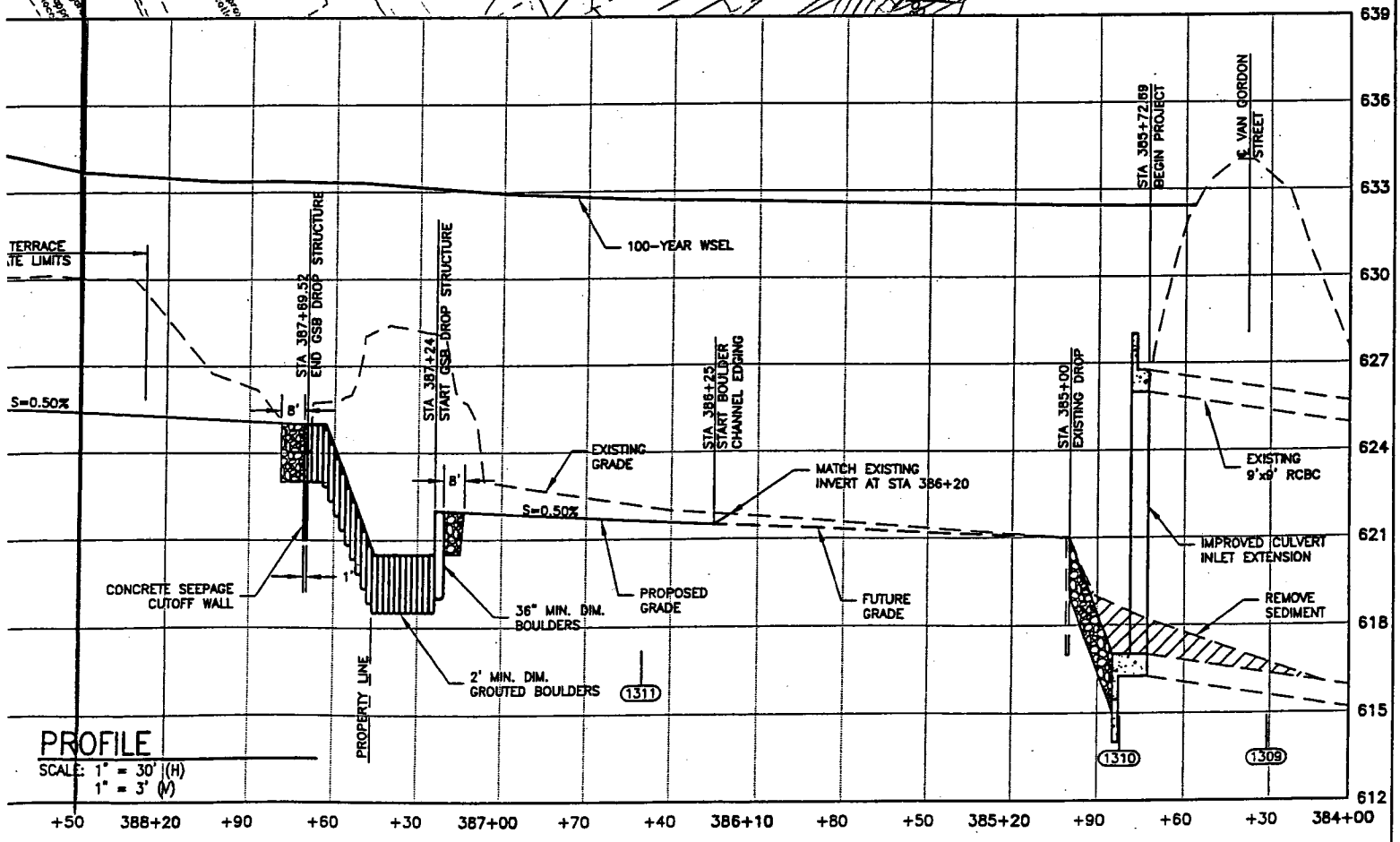
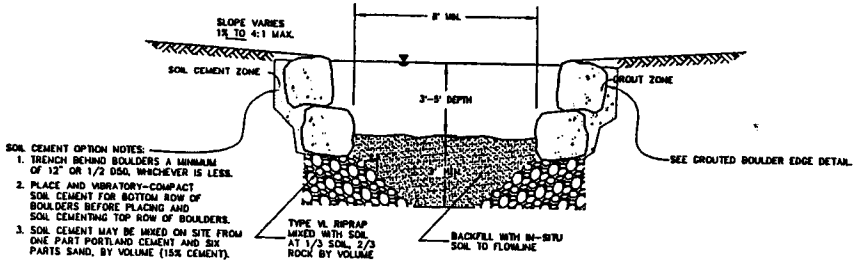
Sheet 3 of 9



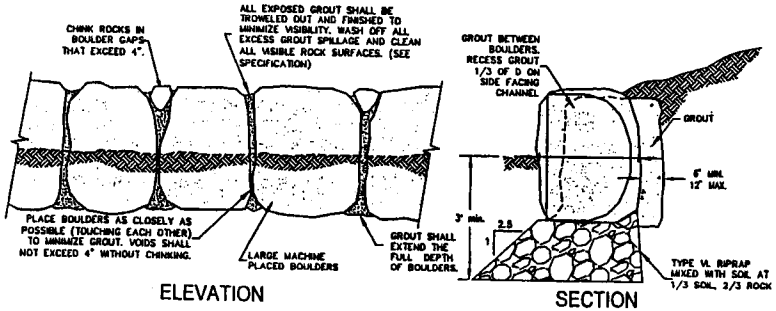




PROFILE
SCALE: 1" = 30' (H)
1" = 3' (V)

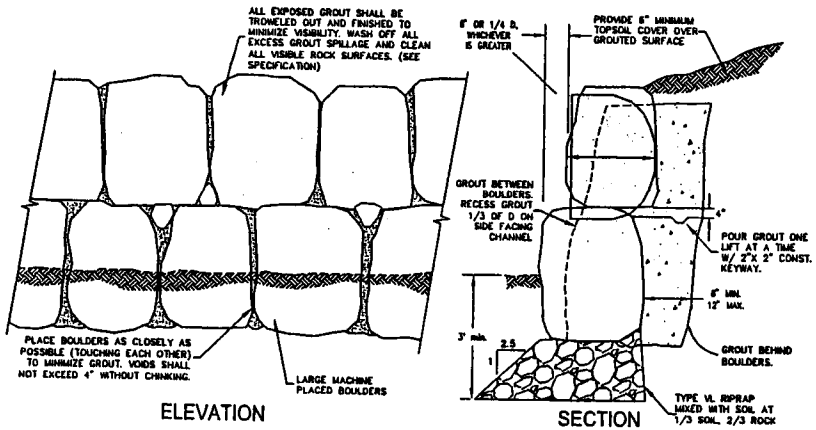
| | | | |
|---|---|---|---|
| YLE CORPORATION Suite 500 | CITY OF LAKEWOOD AND UDFCD | LAKEWOOD GULCH<br>PREMINARY PLAN<br>CHANNEL IMPROVEMENTS — PLAN AND PROFILE | DRAWING NO. C-100<br>PROJECT NO. DN-L14-300-01<br>FILE NO.<br>SHEET 3 OF 11 SHEETS |




BOULDER EDGED LOW FLOW CHANNEL



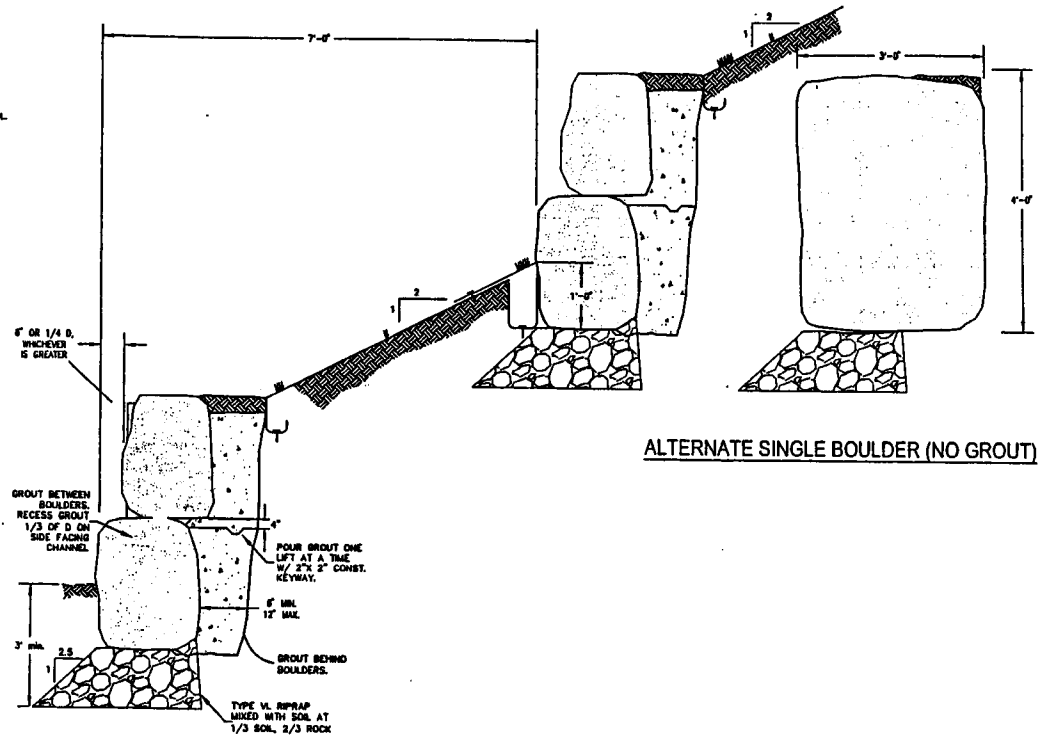

GROUTED BOULDER EDGE DETAIL




GROUTED BOULDER STACKED WALL

BOULDER CHANNEL EDGE TREATMENT DETAILS

SCALE: NOT TO SCALE




ALTERNATE SINGLE BOULDER (NO GROUT)

GROUTED STACKED BOULDER TERRACING

SCALE: NOT TO SCALE

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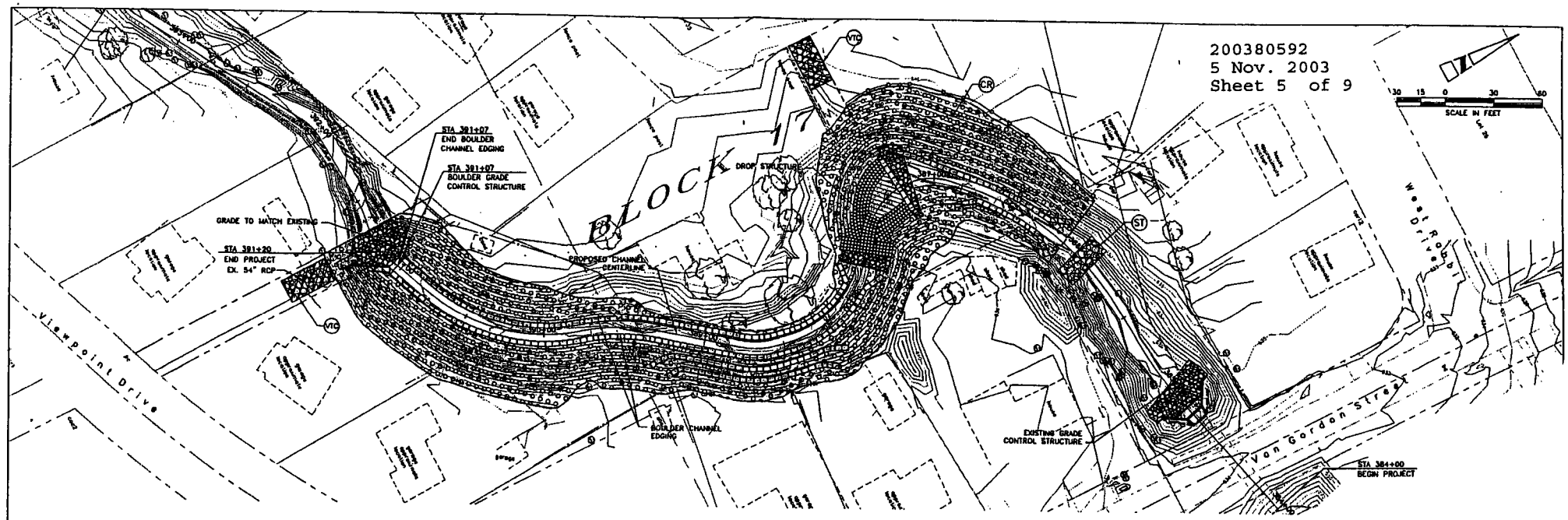
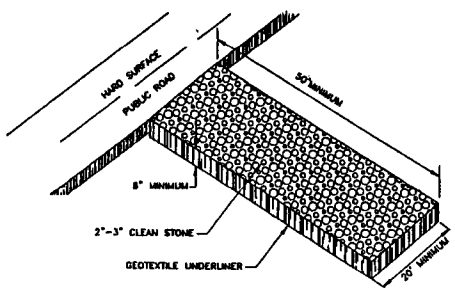


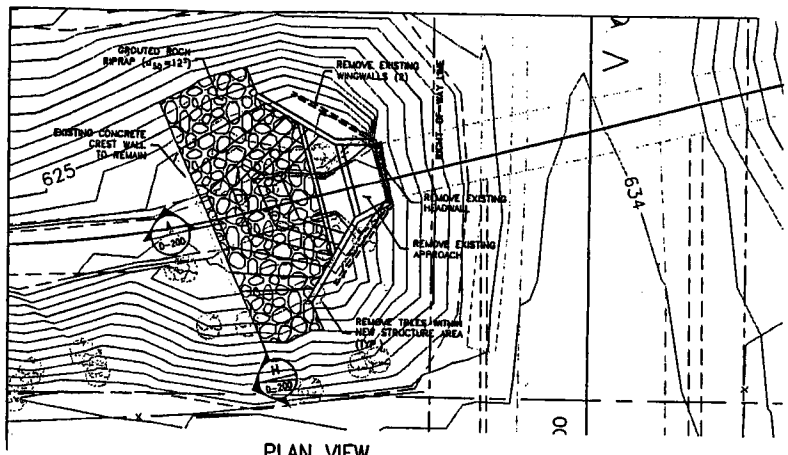

## LEGEND

- LIMITS OF WORK
- CONSTRUCTION FENCE (CF)
- EROSION CONTROL BLANKET
- VEHICLE TRACKING CONTROL (VTC)
- SEDIMENT TRAP (ST)
- EROSION CONTROL BLANKET



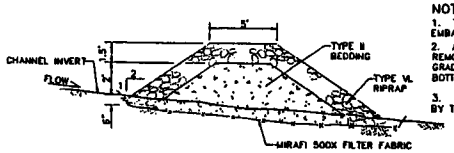

## VEHICLE TRACKING CONTROL DETAIL

SCALE: NOT TO SCALE




## PLAN VIEW

SCALE: 1" = 10'

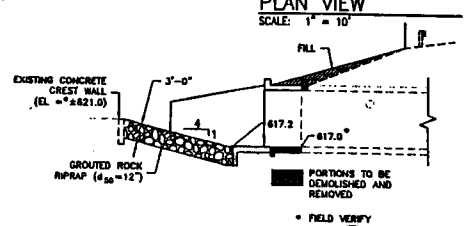



## TEMPORARY SEDIMENT TRAP

SCALE: NOT TO SCALE

NOTES:

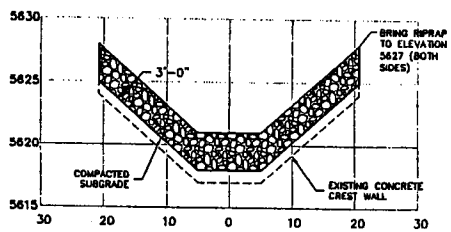
1. THE TEMPORARY SEDIMENT TRAP SHALL EXTEND INTO THE CHANNEL EMBANKMENTS.
2. AFTER CONSTRUCTION THE SEDIMENT TRAP SHALL BE REMOVED AND THE CHANNEL SHALL BE REGRADED TO MATCH PROPOSED GRADES. THE ROCK SHALL BE USED TO LINE THE LOW FLOW CHANNEL BOTTOM AND BANKS, AT LOCATIONS DESIGNATED BY THE PROJECT MANAGER.
3. SEDIMENT TRAPS SHALL BE MAINTAINED AS NEEDED AND AS DIRECTED BY THE PROJECT MANAGER.




## SECTION VIEW

SCALE: 1" = 10'

A
D-200




## SECTION

SCALE: 1" = 10'

H
D-200

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Sheet 6 of 9

90% SUBMITTAL
NOT FOR CONSTRUCTION
DATE 09/26/03

| | | | |
|---|---|---|---|
| DRR | DANIEL R. RICE | | |
| GJH | | | |
| 9/26/03 | DOUGLAS P. STEWARD | 23256 | 7/31/04 |

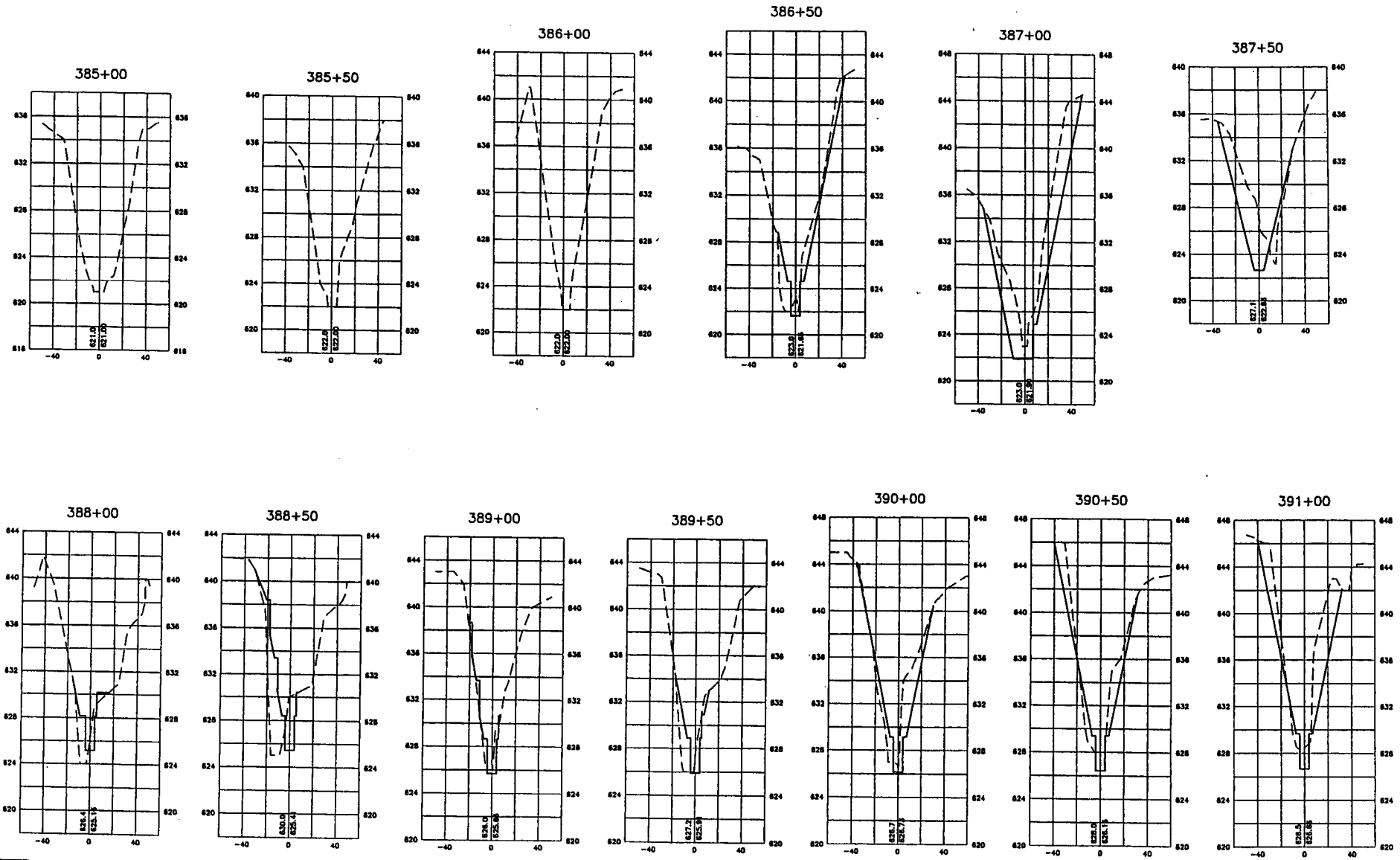
BOYLE ENGINEERING CORPORATION

LAKEWOOD GULCH

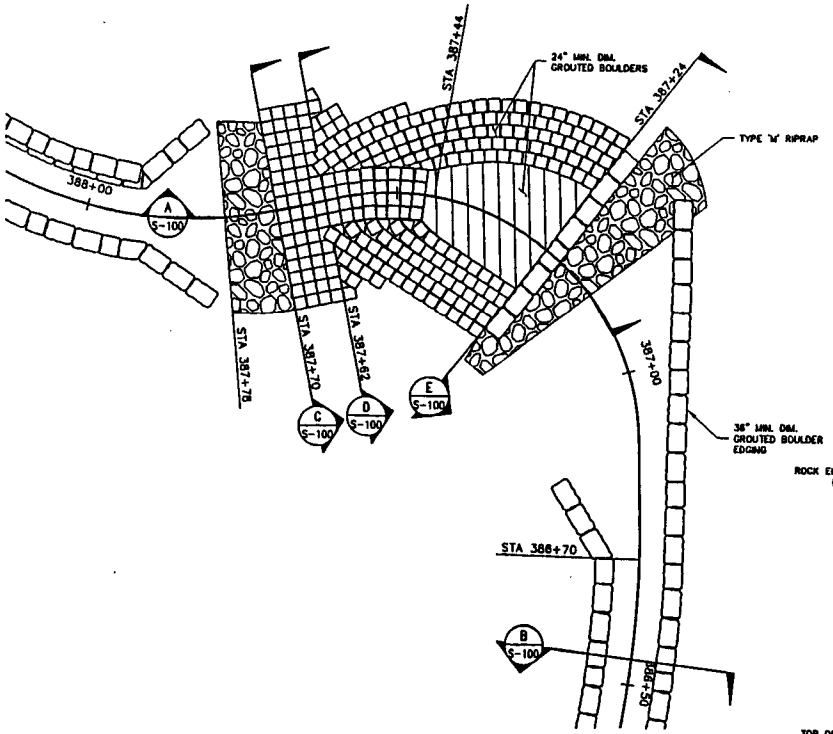
BOULDER TERRACING AND DROP STRUCTURE
PLAN VIEW

C-200

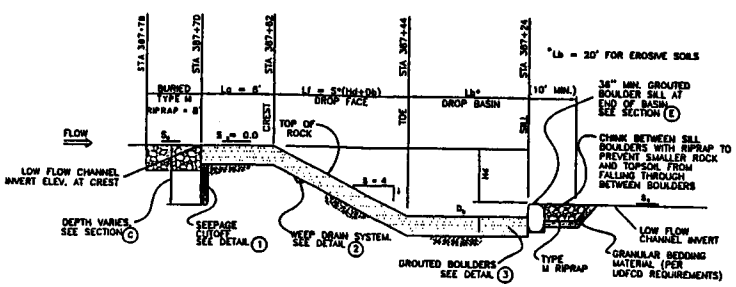
4 of 11



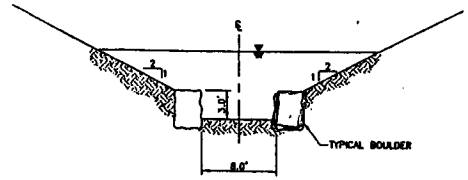

| | | | | | |
|---|---|---|---|---|---|
| DRR | DANIEL R. RICE | BOYLE ENGINEERING CORPORATION | CITY OF LAKEWOOD AND UDFCD | LAKEWOOD GULCH | C-300 |
| GJH | | | | CROSS SECTIONS | 5 of 11 |
| 9/26/03 | DOUGLAS P. STEWARD 23256 7/31/04 | | | | |



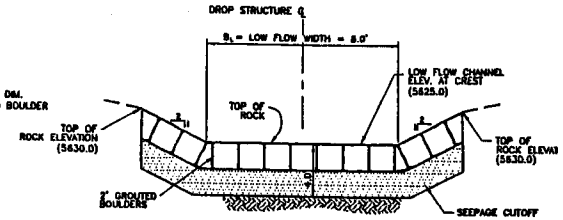

DROP STRUCTURE PLAN
SCALE: NTS
(THIS PLAN IS SCHEMATIC. SEE DROP STRUCTURE PLAN SHEET FOR ACTUAL LAYOUT.)



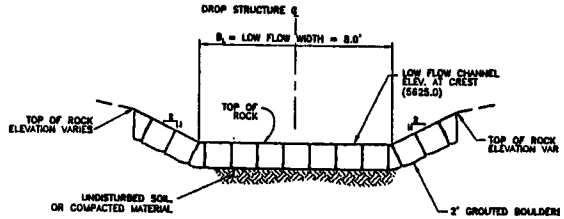

DROP STRUCTURE PROFILE A
SCALE: NTS



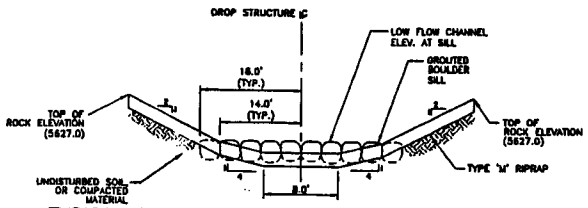

TYPICAL CHANNEL SECTION B
SCALE: NTS
UPSTREAM AND DOWNSTREAM OF DROP



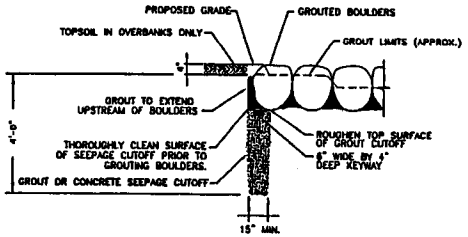

SEEPAGE CUTOFF SECTION C
SCALE: NTS



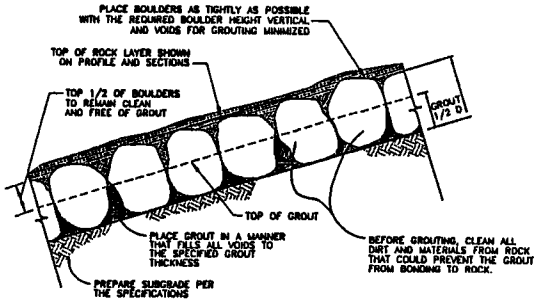

TYPICAL DROP FACE SECTION D
SCALE: NTS




TYPICAL DROP BASIN SECTION AND SILL E
SCALE: NTS




SEEPAGE CUTOFF DETAIL 1
SCALE: NTS




GROUTED BOULDER PLACEMENT DETAIL 3
SCALE: NTS

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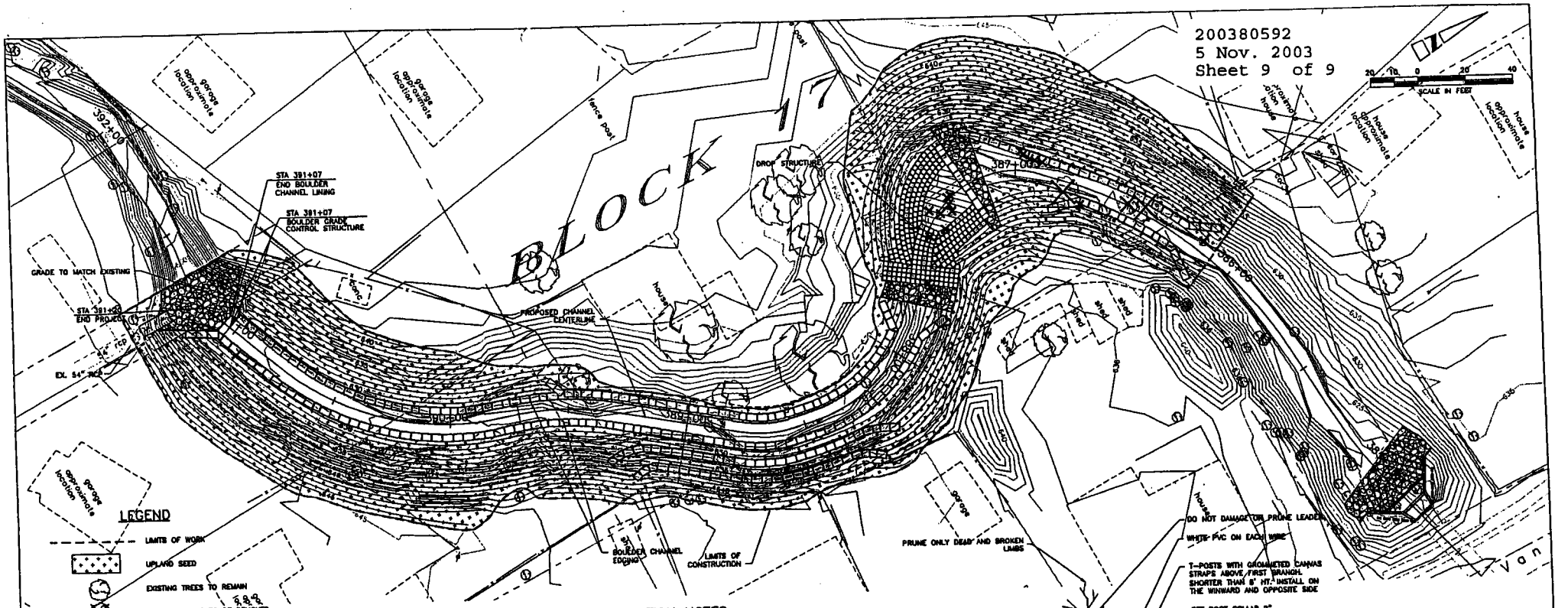
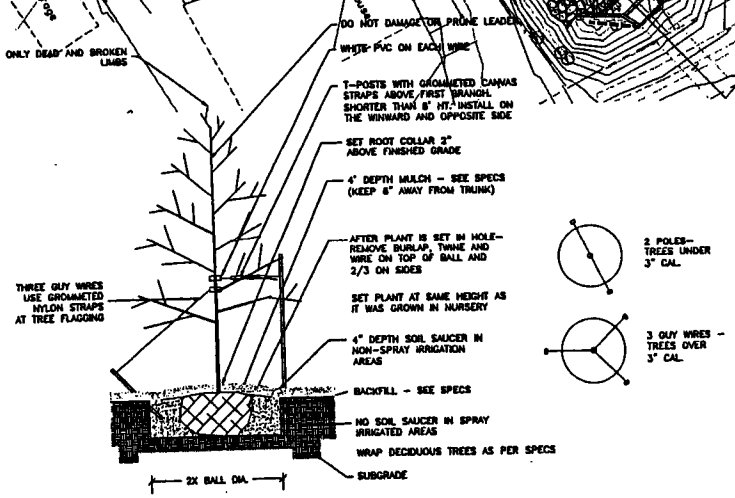



| PLANTING SCHEDULE | | | | |
|---|---|---|---|---|
| KEY | QTY. | BOTANICAL NAME | COMMON NAME | COMMENTS |
| RIPARIAN PLANTS | | | | |
| AP | 8 | Prunus americana | American Plum | 6' Clump |
| CC | 14 | Prunus virginiana | Native Chokecherry | 5' Clump |
| GC | 18 | Ribes aureum | Golden Current | #5 |
| WR | 12 | Rosa woodsii | Wood's Rose | #5 |
| LC | 5 | Populus acuminatus | Lanceleaf Cottonwood | 1.5" Caliper |
| NC | 7 | Populus angustifolia | Narrow Cottonwood | 1.5" Caliper |
| PC | 4 | Populus sargentii | Plains Cottonwood | 1.5" Caliper |

| SEEDING SCHEDULE | | | | |
|---|---|---|---|---|
| KEY | BOTANICAL NAME | COMMON NAME | % OF MIX | PLS lbs/ac |
| UPLAND SEED MIX | | | | |
| | Pascopyrum smithii | Western Wheatgrass | 15 | 5.9 |
| | Elymus trachycaulus trachycaulus | Slender Wheatgrass | 15 | 4.0 |
| | Poa ampla | Big Bluegrass | 15 | 0.8 |
| | Schyzachyrium scoparium | Little Bluestem | 15 | 2.5 |
| | Bouteloua curtipendula | Side-oats Grama | 15 | 3.4 |
| | Chondrosum gracile | Blue Grama | 15 | 0.5 |
| | Andropogon gerardi | Big Bluestem | 15 | 3.3 |
| | | Native Wildflowers** | 5 | 1.0 |
| TOTAL | | | 100 | 22.4 |

## REVEGETATION NOTES

1. BASE INFORMATION PROVIDED BY BOYLE ENGINEERING CORP. CONTRACTOR TO VERIFY UTILITIES IN THE FIELD. REFER TO CIVIL DRAWINGS.
2. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD. CONTRACTOR SHALL NOTIFY OWNER OF CONDITIONS DIFFERING FROM THOSE ON THE DRAWINGS.
3. CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN. REFER TO CIVIL DRAWINGS FOR EXISTING TREES THAT ARE TO BE REMOVED. REFER TO SPECIFICATIONS FOR TREE PROTECTION MEASURES. TREE PLANTING LOCATIONS TO BE DESIGNATED BY CITY OF LAKEWOOD.
4. SEEDING LIMITS ON THE DRAWINGS FOLLOWS THE LIMITS OF GRADING/DISTURBANCE. CONTRACTOR SHALL SEED ALL AREAS NOTED WITHIN THE LIMITS. ANY AREAS OUTSIDE THE LIMITS OF DISTURBANCE SHALL BE SOIL PREPARED AND SEEDED AS SPECIFIED AT THE CONTRACTOR'S EXPENSE.
5. ALL PLANT MATERIAL SHALL BE STAKED OR PLACED BY THE CONTRACTOR AND OBSERVED BY THE ENGINEER PRIOR TO PLANTING OPERATIONS.




TREE PLANTING DETAIL (2 / D-101)
SCALE: NTS

LAKEWOOD GULCH

REVEGATATION PLAN