GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK & ASSOCIATES.
2. ALL UTILITIES SHOWN HAVE BEEN LOCATED BY SURVEY AND RECORD INFORMATION. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.
3. NO SLOPE SHALL BE STEEPER THAN 3:1.
4. FEMA MAP 29183OC0430E DATED 08/02/96
5. ALL SLOPES TO BE STABILIZED IMMEDIATELY AFTER GRADING.
6. ALL UTILITIES SERVING SITE ARE UNDERGROUND.
7. ALL OUTSIDE TRASH CONTAINERS, HVAC UNITS, ELECTRIC, TELEPHONE AND GAS METERS, SATELLITE DISHES, AND ROOFTOP MECHANICAL APPARATUS SHALL BE THOROUGHLY SCREENED WITH MATERIALS AND/OR LANDSCAPING TO CONCEAL THE VISIBILITY OF SUCH ITEMS FROM THE VIEW OF RIGHTS-OF-WAY AND/OR ADJACENT PROPERTIES AS APPROVED BY THE PLANNING AND ZONING COMMISSION.
8. ALL CONSTRUCTION AND MATERIALS USED SHALL CONFORM TO CURRENT CITY OF O'FALLON STANDARDS.
9. SEE ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS AND DETAILS.
10. HANDICAP STALL LOCATIONS ARE TO BE DETERMINED AND COORDINATED WITH THE CITY OF O'FALLON.
11. ALL PROPOSED BUILDINGS LOCATED ON THE PROPERTY AND ARE DESIGNATED "FUTURE DEVELOPMENT", SHALL REQUIRE THE SUBMISSION AND APPROVAL OF A COMPLETED SITE PLAN THAT INDICATES THAT ALL SITE REQUIREMENTS HAVE BEEN MET OR EXCEEDED, PRIOR TO CONSTRUCTION.
12. ROOF TOP MECHANICAL EQUIPMENT ARE SHOWN BY PARAPET WALL AND GROUND MOUNTED MECHANICAL EQUIPMENT MUST BE FULLY SCREENED WITH LANDSCAPING OR SOLID MATERIALS.
13. ALL FILL PLACED UNDER PROPOSED STORM AND SANITARY SEWER, PROPOSED ROADS, AND/OR PAVED AREAS SHALLL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPACTION TEST OR 100% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROTOR TEST AASHTO T-99. ALL FILL PLACED IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL UP. ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS. "NOTE THAT THE MOISTURE CONTENT OF THE SOIL IN FILL AREAS IS TO CORRESPOND TO THE COMPACTIVE EFFORT AS DEFINED BY THE STANDARD OR MODIFIED PROCTOR TEST. OPTIMUM MOISTURE CONTENT SHALL BE DETERMINED USING THE SAME TEST THAT WAS USED FOR COMPACTION. SOIL COMPACTION CURVES SHALL BE SUBMITTED TO THE CITY OF O'FALLON PRIOR TO THE PLACEMENT OF FILL. PROOF ROLLING MAY BE REQUIRED TO VERIFY SOIL STABILITY AT THE DISCRETION OF THE CITY OF O'FALLON.
14. DEVELOPER MUST SUPPLY CITY CONSTRUCTION INSPECTORS WITH SOIL REPORTS PRIOR TO OR DURING SITE SOIL TESTING. REPORTS MUST CONTAIN THE FOLLOWING INFORMATION:
    - MAXIMUM DRY DENSITY
    - OPTIMUM MOISTURE CONTENT
    - MAXIMUM/MINIMUM ALLOWABLE MOISTURE CONTENT
    - CURVE MUST BE PLOTTED SHOWING DENSITY FROM A MINIMUM OF 95% COMPACTION AND ABOVE DETERMINED BY THE "MODIFIED AASHTO-180 COMPACTION TEST" OR FROM A MINIMUM OF 100% AS DETERMINED BY THE "STANDARD PROCTOR TEST AASHTO T-99, METHOD C" (ASTM D-698). PROCTOR TYPE MUST BE DESIGNATED ON DOCUMENT.
    - CURVE MUST HAVE ATLEAST 5 DENSITY POINTS
    - SPECIFIC GRAVITY
    - NATURAL MOISTURE CONTENT
    - LIQUID LIMIT
    - PLASTIC LIMIT
15. ALL PAVED ROADWAYS GOING ON AND OFFSITE WILL BE KEPT FREE OF DIRT, ROCKS, GRAVEL OR OTHER MATERIALS DURING CONSTRUCTION.
16. RIP RAP SHOWN AT FLARED ENDS WILL BE EVALUATED IN THE FIELD AFTER INSTALLATION FOR EFFECTIVENESS AND FIELD MODIFIED IF NECESSARY TO REDUCE EROSION ON AND OFF SITE.
17. ALL PAVING TO BE IN ACCORDANCE WITH ST. CHARLES COUNTY STANDARDS AND SPECIFICATIONS EXCEPT AS MODIFIED BY THE CITY OF O'FALLON ORDINANCES.
18. ALL PROPOSED WATER LINE SHALL BE C900 PVC OR BETTER.
19. BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF STORM SEWER STRUCTURES.
20. ALL PROPOSED FENCING REQUIRES A SEPERATE PERMIT THROUGH THE PLANNING DIVISION.
21. ALL SIGN LOCATIONS AND SIZES MUST BE APPROVED SEPERATELY THROUGH THE PLANNING DIVISION. SIGN LOCATIONS ARE SHOWN ON PLANS.
22. ALL SIGN POSTS AND BACKS AND BRACKET ARMS SHALL BE PAINTED BLACK USING CARBOLINE RUSTBOND PENETRATING SEALER SG AND CARBOLINE 133 HB PAINT (OR EQUIVALENT AS APPROVED BY THE CITY AND MODOT). SIGNS DESIGNATING STREET NAME SHALL BE ON THE OPPOSITE SIDE OF THE STREET FROM TRAFFIC CONTROL SIGNS.
23. SITE COVERAGE CALCULATIONS:

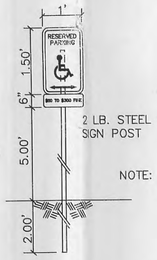
TOTAL ACREAGE	= 36.03± ACRES (100%)
BUILDING AREA	= 2.78 ACRES (2.78%)
PAVEMENT AREA	= 3.29 ACRES (3.29%)
GREEN SPACE	= 29.96 (ACRES *83.15%)

24. PRESENT ZONING: "HTCD" (HIGH TECH CORRIDOR DISTRICT)
    BUILDING SETBACK REQUIREMENTS PER ZONING:
    (A) FRONT YARD – THIRTY FEET (30')
    (B) SIDE YARD – TWENTY FEET (20')
    (C) REAR YARD – THIRTY FIVE FEET (35')
25. O'Fallon P&Z Parking Requirements

    Offices:
    * 1 space per 300 square feet of floor area.
    Required Spaces = 1 per 14,784/300 SF
    Required: 50 Total Parking Spaces
    Provided: 50 Total Parking Spaces

    Warehouse:
    * 1 Space per employee, plus 1 space for every 1000 s.f.
    * Over 1000: 20 plus 1 per 100
    Required Spaces = 20 = 106,400/1000 s.f.
    Required: 126 Total Parking Spaces
    Provided: 126 Total Parking Spaces

    Accessible spaces
    Required: 6 Spaces
    Provided: 7 Spaces (2 Van Accessible)
26. IMPROVEMENTS ARE TO BE MADE TO THE ADJACENT RIGHT OF WAY OF ALL DEVELOPMENTS TO MEET CITY OF O'FALLON STANDARDS AND SPECIFICATION. ANY ADJUSTMENTS IN THE GRADING OF RIGHT OF WAY WHETHER IT BE EXISTING CONDITIONS OR CAUSED BY THE CONSTRUCTION OF THE DEVELOPMENT SHALL BE APPROVED BY THE CITY OF O'FALLON UPON INSPECTION OF THE SITE.
27. TREE PRESERVATION CALCULATIONS:
    No trees are to be removed.
    – All trees on site preserved: 100%
28. DRIVEWAYS AND ENTRANCES PER ST. CHARLES COUNTY STANDARDS, AND THE CITY OF O'FALLON.
29. HDPE PIPE IS TO BE N-12WT OR EQUAL AND TO MEET ASTM F14117, WATER TIGHT FIELD TEST
30. ALL PLANNING AND ZONING COMMISSION REQUIREMENTS HAVE BEEN ADDRESSED IN THIS PLAN SET.
31. ALL PUBLIC ROADWAYS SHALL BE KEPT FREE OF DIRT, ROCK, SILT, OR THER DEBRIS. MUD, DIRT, OR OTHER MATERIALS DEPOSITED ON THE ROADWAY BY VEHICLES ENTERING OR LEAVING THE SITE WILL BE REMOVED WITHIN A REASONABLE TIME FRAME.
32. THE DEVELOPER IS TO POST A FINANCIAL GUARANTEE OF PERFORMANCE (PER APPROVED COST ESTIMATE) AS REQUIRED BY ARTICLE 405 OF THE SUBDIVISION ORDINANCE.
33. ALL LIGHT POLES ARE TO BE LOCATED WITHIN LANDSCAPED ISLANDS.
34. LIGHTING VALUES WILL BE REVIEWED ON SITE PRIOR TO THE FINAL OCCUPANCY INSPECTION. CORRECTIONS WILL NEED TO BE MADE IF NOT IN COMPLIANCE WITH CITY STANDARDS.
35. ENSURE SIDEWALKS, CURB RAMPS, RAMP AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ABOVE INFORMATION AND THE PLANS, THE ADAAG GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR PRIOR TO ANY CONSTRUCTION SHALL NOTIFY THE PROJECT ENGINEER. (ENSURE AT LEAST ONE 8' WIDE HANDICAP AISLE IS PROVIDED AND CURB RAMPS DO NOT PROJECT INTO THE HANDICAP ACCESS AISLE). ALL HANDICAP RAMPS ARE TO BE CONCRETE.
36. ALL PRODUCTS, MATERIALS, OR OTHER ITEMS STORED ON THE EXTERIOR OF THE BUILDING SHALL BE SCREENED BY EIGHT (8) FOOT HIGH BERMS, DENSE VEGETATION AND WOOD OR BRICK FENCES AS REVIEWED BY AND APPROVED ON THE CONSTRUCTION SITE PLANS.



NOTE: PROVIDE ONE SIGN PER ACCESSIBLE SPACE.

ACCESSIBLE PARKING SIGN
(n.t.s.)

EROSION AND SEDIMENT CONTROL NOTES

1. Installation of perimeter sediment control shall be implemented as the first step of grading and within seven (7) days of grubbing the site.
2. Inspection of siltation control devices shall take place once every seven days and within 24 hours of any 0.5"/24 hour rain event. Any siltation control in need of repair shall occur immediately.
3. Any disturbed areas which will remain unworked for 14 days or more shall be stabilized with seeding and mulching per specifications within 7 days. If seasonal conditions prohibit seeding, mulching or matting shall be used.
4. All slopes or drainage channels, once constructed to final grade, shall be seeded and mulched per specifications within seven (7) days.
5. Silt fences shall be installed immediately around each storm sewer structure once final construction of each individual structure is complete.
6. All siltation control devices shall remain in place until upslope areas have been permanently stabilized.
7. The Contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The Contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MoDOT. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MoDOT may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silts or mud on new or existing pavement or in new or existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MoDOT." Owner shall be responsible for structure to remain as permanent after construction is complete.
8. Erosion control shall not be limited to what is shown on the plan. Whatever means necessary shall be taken to prevent siltation and erosion from entering natural streams and adjacent roadways, properties, and ditches.
9. When deemed necessary, positive steps should be exercised to prevent this soil from damaging adjacent property and silting up all storm drainage systems whether on or off site.
10. LOCATIONS AND DETAILS FOR ALL SILTATION CONTROL DEVICES SHALL FOLLOW, "ST. CHARLES COUNTY SOIL AND WATER CONSERVATION DISTRICT EROSION AND SEDIMENT CONTROL" GUIDELINES.

Siltation Control Schedule Implementation

1. Perimeter siltation control and construction entrances to be installed.
2. Begin placing aggregate base in parking areas once area has reached final grade to prevent erosion.
3. Place silt fence around each storm sewer structure as it is completed.
4. Immediately seed areas upon reaching final grade that are to be permanently seeded.

Temporary Access Roads and Parking Areas Specifications

1. Temporary roads shall follow the contour of the natural terrain to the extent possible. Slopes should not exceed 10 percent.
2. Grades should be sufficient to provide drainage, but should not exceed 10 percent.
3. Roadbeds shall be at least 24 feet wide.
4. All cuts and fills shall be 3:1 or flatter to the extent possible.
5. Drainage ditches shall be provided as needed.
6. The roadbed or parking surface shall be cleared of all vegetation, roots and other objectionable material.
7. A 10-inch course of 2" MINUS aggregate shall be applied immediately after grading or the completion of utility installation within the right-of-way. Filter fabric may be applied to the roadbed for additional stability in accordance with fabric manufacturer's specifications.

Vegetation

All roadside ditches, cuts, fills and disturbed areas adjacent to parking areas and roads shall be stabilized with appropriate temporary or permanent vegetation according to the applicable standards and specifications.

Maintenance

Both temporary and permanent roads and parking areas may require periodic top dressing with new gravel. Seeded areas adjacent to the roads and parking areas should be checked periodically to ensure that a vigorous stand of vegetation is maintained. Roadside ditches and other drainage structures should be checked regularly to ensure that they do not become clogged with silt or other debris.

All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in 1/2 inch of rain or more.

Straw Bale Siltation Control Specifications

Sheet Flow Applications

1. Bales shall be placed in a single row, lengthwise on the contour, with both ends of adjacent bales tightly abutting one another.
2. All bales shall be either wire-bound or string-tied. Straw bales shall be installed so that buildings are oriented around the sides rather than along the tops and bottoms of the bales (in order to prevent deterioration of the bindings). See Detail this sheet.
3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill and shall be built up to 4 inches against the uphill side of the barrier (See detail this sheet).
4. Each bale shall be securely anchored by at least two stakes or rebars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or rebars shall be driven deep enough into the ground to securely anchor the bales.
5. The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. (Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency).
6. Inspection shall be frequent and repair or replacement shall be made promptly as needed.
7. Straw bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized.

Channel Flow Applications

1. Bales shall be placed in a single row, lengthwise, oriented perpendicular to the contour, with ends of adjacent bales tightly abutting one another.
2. The remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following addition.
3. The barrier shall be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale (see detail) to assure that sediment-laden runoff will flow either through or over the barrier but not around it.

Maintenance

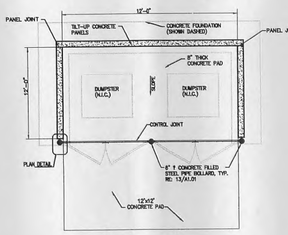
1. Straw bale barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Close attention shall be paid to the repair of damaged fence, end runs and undercutting beneath fence.
3. Necessary repairs to barriers or replacement of silt fence shall be accomplished promptly.
4. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
5. Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

Silt Fence Specifications

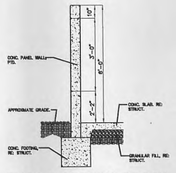
1. Silt Fence to be woven geotextile fabric Mirafi 100X or equal.
2. Fabric to be supported by metal tee post with spade base spaced on 5' centers with 6 x 6/10 x 10 gage welded wire fence. See detail this sheet.
3. Fabric shall be entrenched and backfilled. A trench shall be excavated a minimum of 6 inches deep for the length of the fence. The excavated soil shall be backfilled against the fence. See detail this sheet.
4. Fence height shall be a minimum of 4 feet in height, with the fabric installed on the fence on the upstream side.
5. Silt fences shall be used only on sheet flow conditions.
6. Silt fences shall be installed around all storm sewer structures.

Maintenance

1. Silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales.
3. Necessary repairs to barriers or replacement of bales shall be accomplished promptly.
4. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
5. Any sediment deposits remaining in place after the silt fence barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.



TRASH ENCLOSURE
N.T.S.



TRASH ENCLOSURE SECTION
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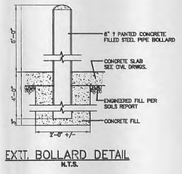
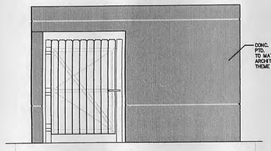
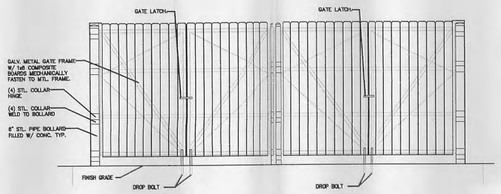


EXT. BOLLARD DETAIL
N.T.S.



TRASH ENCLOSURE ELEVATIONS
N.T.S.



TRASH ENCLOSURE ELEVATIONS
N.T.S.

VEGETATION ESTABLISHMENT

TILLAGE PERPARATIONS
*TILL TOP 4" OF SOIL

FERTILIZER
* PER SOIL TEST OR FOLLOWING TABLE:

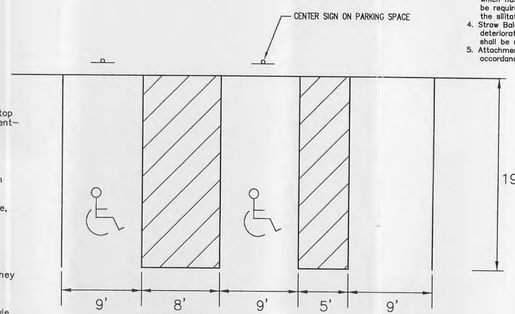
	LBS./1,000 S.F. N	P	K	LIME
TEMPORARY SEEDING	0.7	0.7	0.7	14 ENM+
PERMANENT	1.0	1.4	1.4	14 ENM+

+ SOIL TEST RESULTS TAKE PRECEDENCE, DUE TO HIGHLY VARIBALE SOIL pH.

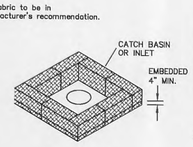
SEEDING RATES

TEMPORARY	
WHEAT OR RYE	150 LBS. / ACRE
PERMANENT	
FESCUES	150 LBS. / ACRE
KENTUCKY BLUEGRASS/	6 LBS / 1000 S.F.
PERENNIAL RYEGRASS	8 LBS / 1000 S.F.
FINE FESCUE	
SEEDING PERIODS	MARCH 1 – JUNE 1
LISTED LEGUMES/GRASSES	AUGUST 1 – OCTOBER 1
WHEAT/RYE	MARCH 15 – NOVEMBER 1

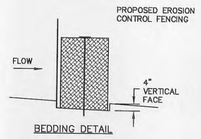
GENERAL NOTES:
1. Do not scale drawing. Follow Dimensions
2. Siltation Control Devices to remain in place until adequate vegetative growth insures no further erosion of the soil.
3. Siltation Fences shall be inspected periodically for damage and for the amount of sedimentation which has accumulated. Removal of sediment will be required when it reaches 1/2 of th height of the siltation fence.
4. Straw Bales shall be inspected periodically for deterioration. Bales which have rolled or failed shall be replaced.
5. Attachment of Geotextile Fabric to be in accordance with the manufacturer's recommendation.



TYPICAL PARKING STALLS
(n.t.s.)

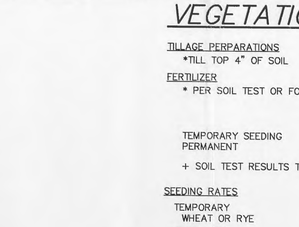


INLET PLACEMENT



BEDDING DETAIL

STORM INLET SEDIMENT TRAP DETAIL
(n.t.s.)

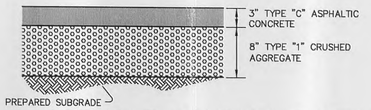


TYPE "S" CURB & PAVEMENT DETAIL
(n.t.s.)

SECTION A-A

SECTION B-B

SILTATION CONTROL SILT FENCE DETAIL
(n.t.s.)



LIGHT DUTY – ASPHALT PAVEMENT DETAIL
ON-SITE
(n.t.s.)

PAINT GRAPHIC ON PAVING
@ H.D.C.P. STALLS

HANDICAP SIGN
(n.t.s.)

3.) APPROVAL SET 04/24/08
2.) REVISED PER CITY COMMENTS 04/08/08
1.) REVISED PER CITY COMMENTS 03/14/08

04/24/08

STATE OF MISSOURI – GEORGE MICHAEL STOCK – NUMBER E-25116 – REGISTERED PROFESSIONAL ENGINEER

GEORGE M. STOCK E-25116

HUSTLER CONVEYORS

SPECIFICATIONS AND DETAILS SHEET

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FAX (636) 530-9130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

DRAWN BY:	DATE:	CHECKED BY:	DATE:	JOB NUMBER:	SHEET:
J.E.B.	02/13/08	D.P.B.	02/13/08	207-4205	C2 of 4

SITE PLAN APPROVED 01/03/08, (1903

DRAWING FILE: O:\DRAW\2007\2074205\Civil\Plans\4205base.dwg LAYOUT: C02-SPECIFICATIONS-DETAILS PLOTTED: Apr 24, 2008 - 8:13am PLOTTED BY: Josh.barnes