

# City of O'Fallon

## General Notes

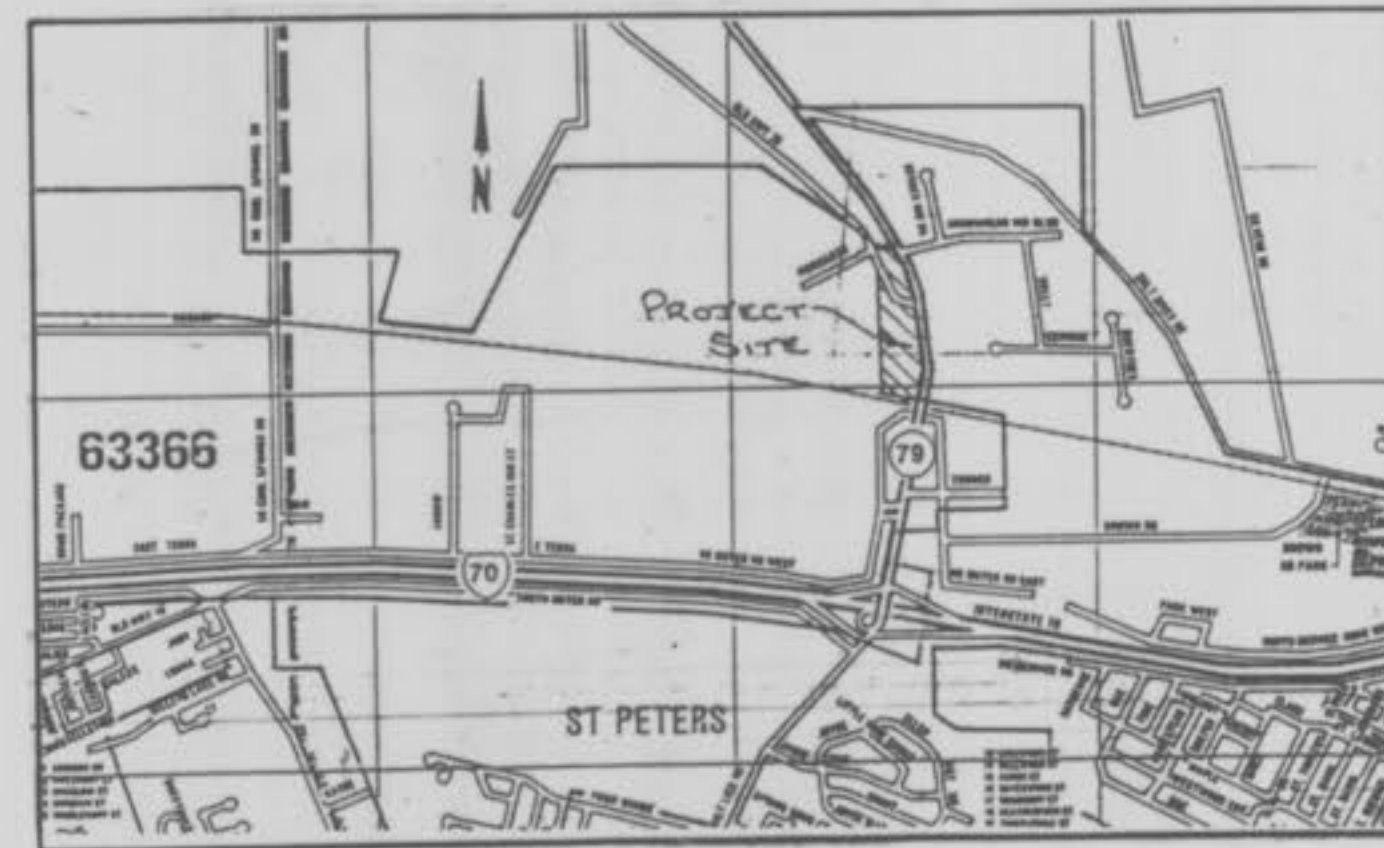
- Gas, water and other underground utilities shall not conflict with the depth or horizontal locations of existing and proposed sanitary and storm sewers, including house laterals.
- Underground utilities have been plotted from available information and, therefore, their locations must be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor, and shall be located prior to grading or construction of improvements.
- Polyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR-35.
- Storm sewers 18" in diameter or smaller shall be ASTM C-14.
- Storm sewers 21" in diameter or larger shall be ASTM C-76, Class II.
- All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (ASTM C-76, Class III) unless noted otherwise on the plans.
- Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M-36, A.A.S.H.O. See plans for gauge.
- All filled places under buildings, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills shall be compacted to 90% of maximum density as determined by the "Modified A.A.S.H.O. T-180 Compaction Test" (ASTM D-1557) unless otherwise specified by the local governing authority specifications. All tests will be verified by a Soils Engineer.
- All earthen filled places within State, County, or City roads (Highways) shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test A.A.S.H.O. T-99" (ASTM D-698) unless otherwise specified by local governing authority specifications. All tests will be verified by a Soils Engineer.
- All storm and sanitary trench backfills shall be water jetted. Granular fill will be used under paved areas.
- Easements shall be provided for storm sewers, sanitary sewers, and all utilities on the record plat. See record plat for location and size of easements. This does not apply to house laterals.
- No area shall be cleared without the permission of the developer.
- All grade shall be within 0.2 feet (more or less) of those shown on the grading plan.
- No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
- Hazard markers will consist of three (3) standard specification, "Manual on Uniform Traffic Control Devices", end of roadway markers mounted on two (2) pound "U" channel sign post. Each marker shall consist of an eighteen (18) inch diamond reflectorized red panel. The bottom of each panel shall be mounted a minimum of four (4) feet above the elevation of the pavement surface.
- All manhole and curb inlet tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction stake-out of the sewer lines, all curb and grate inlets will be face staked. If normal face stakes fall in line with sewer construction, the Engineer will set these stakes on a double offset. It shall be the responsibility of the sewer contractor to preserve all face stakes from destruction.
- All standard street curb inlets to have front of inlet 2 feet behind curb.
- The minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding house connection shall not be less than the diameter of the sanitary sewer plus a vertical distance of not less than 2-1/2 feet.
- Water Lines, valves, sleeves, meters and etc. shall meet all specifications and installation requirements of the local governing authority.
- All cast iron pipe for water mains shall conform to A.W.W.A. specification C-106 and/or C-108. The cast iron fittings shall conform to A.W.W.A. specification C-110. All rubber gasket joints for water cast iron pressure pipe and fittings shall conform to A.W.W.A. specification C-111.
- All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- All PVC sanitary sewer pipe shall be DR-35 or equal with crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 12" above the top of the pipe.
- All grading on Missouri State Highway Right-of-Way shall be seeded and mulched and all disturbed Right-of-Way markers shall be reset at the completion of grading.
- All streets must meet the specifications and installation requirements of the City of O'Fallon.
- All sanitary manhole tops shall be set 0.2' higher than the proposed ground except in pavement areas.
- All sanitary manholes shall have a 31 mil thick coat of coal tar pitch waterproofing.
- All sanitary service lines shall have a 6" diameter for Multi-family and a 4" diameter for Single-family developments.
- Manhole frame and cover shall be Clay and Bailey No. 2008 for Neenah R-1736 or Deeter 1315 or approved equal.
- A drop of 0.2 feet is required through each sanitary manhole.
- The City of O'Fallon shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
- Brick shall not be used on manholes.
- Sewer contractor shall maintain 24' vertical separation between all storm sewers and the sludge force main. Contractor shall be responsible for verifying separation prior to storm sewer installation.

This tract is served by:  
 Electric - Union Electric Company  
 Sanitary - City of O'Fallon  
 Water - City of O'Fallon  
 Telephone - Continental Telephone Company  
 Natural Gas - St. Charles Gas Company  
 Fire District - St. Peters Fire District

# "RIVERSIDE" SALT RIVER INDUSTRIAL PARK

A TRACT OF LAND BEING PART OF U.S. SURVEY 731  
 TOWNSHIP 47 NORTH RANGE 3 EAST  
 ST. CHARLES COUNTY, MISSOURI

## "AS-BUILTS"



Location Map

## Index

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④	SEWER PROFILES
	STREET PROFILES &
7	PAVEMENT DETAILS
8-11	CONSTRUCTION DETAILS

## Benchmark

BM 70	A standard disc, stamped H-149 1980, in the middle of the West pier base under Highway 79 at Norfolk & Western Railroad, Reset 1980. Elev. 505.026
TBM 70-1	Top 2" dip at the Southwest corner of property. Elev. 503.96
TBM 70-3	Found "Ø" chiseled in box culvert at Sta. 518+00, 30' Lt. - Highway 79.

## Legend

○	Sanitary Sewer (Proposed)	C.I.	Curb Inlet
○	Sanitary Sewer (Existing)	D.C.I.	Double Curb Inlet
○	Storm Sewer (Proposed)	G.I.	Grate Inlet
○	Storm Sewer (Existing)	A.I.	Area Inlet
—	Water Line & Size	D.A.I.	Double Area Inlet
⊥	Tee & Valve	C.C.	Concrete Collar
⊕	Hydrant	F.E.	Flared End Section
→	Cap	E.P.	End Pipe
18	Lot or Building Number	E.D.	Energy Dissipator
—	Existing Fence Line	M.H.	Manhole
~	Existing Tree Line	C.P.	Concrete Pipe
3/5	Street Sign	R.C.P.	Reinforced Concrete Pipe
△	Direction of Proposed Residence	C.M.P.	Corrugated Metal Pipe
—	Existing Contour	C.I.P.	Cast Iron Pipe
—	Proposed Contour	P.V.C.	Polyvinyl Chloride
■	Grouted Rip-Rap	V.C.P.	Vitrified Clay Pipe
⊥	End of Lateral	C.O.	Clean Out
■	Asphalt Pavement	V.T.	Vent Trap
■	Concrete Pavement		
⊙	Storm/Sanitary Structure		
○	Test Hole		
⊕	Power Pole		
⊕	Light Standard		

## "AS-BUILTS"

### PICKETT RAY & SILVER

Civil Engineers  
 Planners  
 Land Surveyors

333 Mid Rivers Mall Dr.  
 St. Peters, MO 63376  
 441-1211 278-1211

PREPARED FOR:  
**DIDION MANUFACTURING CO.**  
 30 Patmos Court  
 St. Peters, MO. 63376  
 (314) 928-1940

DRAWN BC DATE 9-28-90  
 CHECKED DB DATE 9-28-90

FIELD BOOK 435 PROJECT # 88-160  
 JOB ORDER # 17502

RIVERSIDE IND. City of O'Fallon, Mo.  
 AS-BUILTS

This is to certify to City of O'Fallon that these "As-Built" Sewer Plans are based on actual field surveys conducted during May, 1991 and the results are shown here on.

by Pickett Ray & Silver

Delmar F. Vincent  
 Delmar F. Vincent  
 MO R.L.S. No 1869

5/13/91  
 Date

#### ENGINEERS AUTHENTICATION

The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after the date unless reauthenticated.

PICKETT RAY & SILVER, INC.  
 RAY PICKETT  
 E-16395

Signature Date



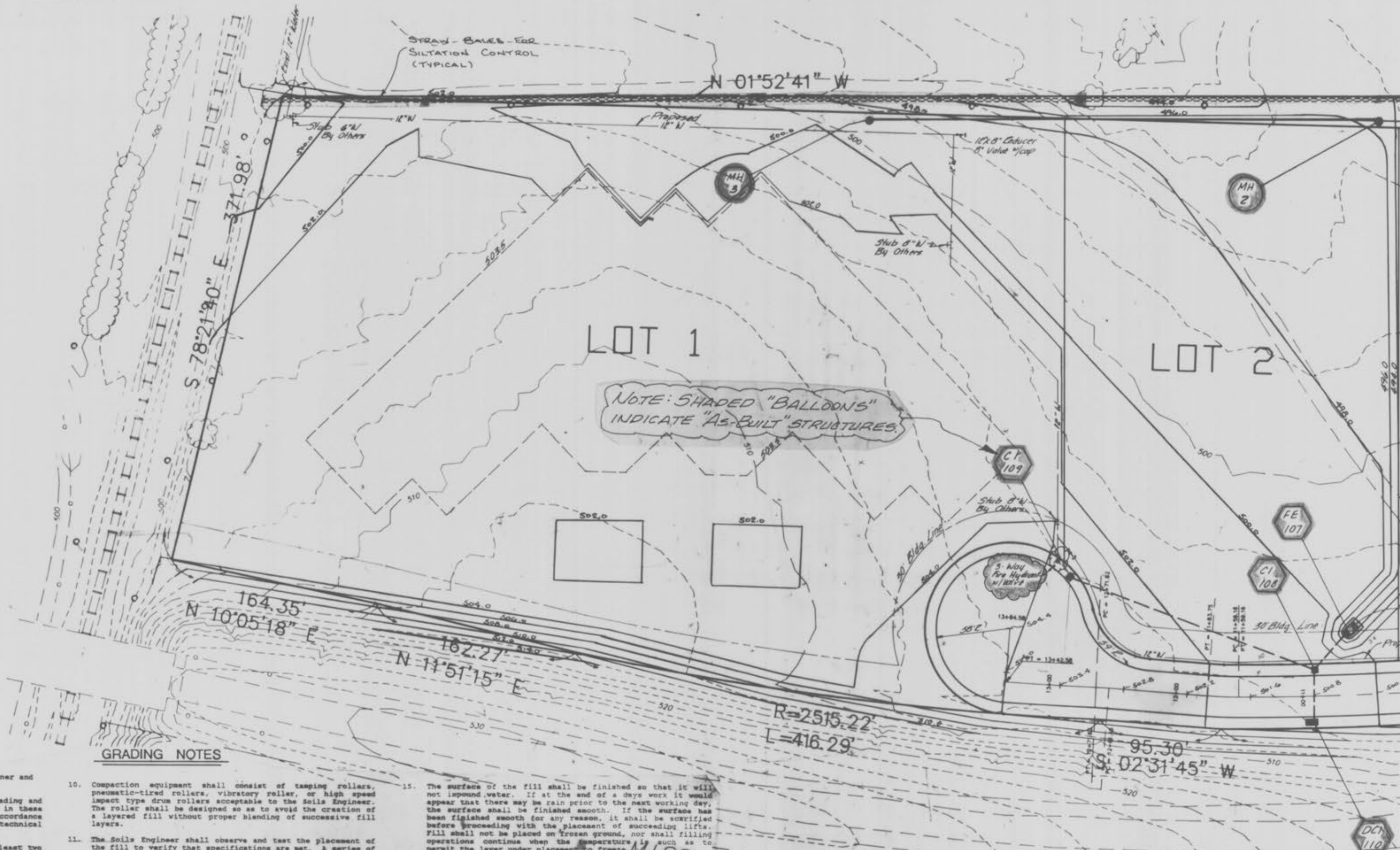
# SALT RIVER INDUSTRIAL PARK

A TRACT OF LAND BEING PART OF U.S. SURVEY 731  
TOWNSHIP 47 NORTH RANGE 3 EAST  
ST. CHARLES COUNTY, MISSOURI

## GRADING PLAN



LOCATION MAP



DESCRIPTION

16.233 Acres

A tract of land being part of property described under Parcel 4 of a deed recorded in Book 582, Pages 854-859 of the St. Charles County Recorder's Office, said tract being part of U.S. Survey 731, in Township 47 North, Range 3 East, St. Charles County, Missouri, being more particularly described as follows:

COMMENCING at the Southeast corner of U.S. Survey 749 in Township 47 North, Range 3 East, St. Charles County, Missouri; THENCE, South 89°41'05" East, 2.29 feet survey (9.90 feet record) to a point; THENCE, South 01°52'41" East, 836.75 feet to a point on the Southern right-of-way line of Old Highway 79, said point being the POINT OF BEGINNING OF THE TRACT HEREIN DESCRIBED; THENCE, South 35°25'10" East, 205.40 feet to a point; THENCE, South 67°17'06" East, 168.19 feet to an old right-of-way marker; THENCE, South 71°10'02" East, 134.21 feet to a point on the new right-of-way line of Missouri State Highway 79; THENCE, along said right-of-way line in a Southwardly direction along a curve to the right having a radial bearing of South 72°37'39" West, a central angle of 15°48'43" and an arc length of 695.50 feet to a point; THENCE, South 02°31'45" West, 95.30 feet to a point; THENCE, in a Southwardly direction along a curve to the right having a radial bearing of North 89°23'40" West, a central angle of 09°28'59" and an arc length of 416.29 feet to a point; THENCE, South 11°51'15" West, 162.27 feet to a point; THENCE, South 10°05'18" West, 164.35 feet to the point of intersection on the Northern line of a Wabash Railroad right-of-way; THENCE, along said right-of-way line North 78°21'40" West, 371.98 feet to an old iron pipe two inches in diameter; THENCE, leaving said right-of-way line along the Westernmost line of a tract of land described as Parcel 4 in a deed in Book 582, Pages 854-859, North 01°52'41" West, 1,704.30 feet to the Point of Beginning and containing 16.233 acres, more or less, as surveyed by Pickett, Ray & Silver, Inc. during January of 1969.

GRADING NOTES

1. A Geotechnical Engineer shall be employed by the owner and be on site during grading operations.
2. The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied therefrom, all in accordance with the plans and notes as interpreted by the geotechnical engineer.
3. The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.
4. All areas will be allowed to drain. All low points should be provided with temporary ditches.
5. A sediment control plan that includes monitored and maintained sediment control basins and/or straw bales should be implemented as soon as possible. No graded area is to be allowed to remain bare over the winter without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and siltting up existing downstream storm drainage systems.
6. Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
7. Any existing trash and debris currently on this property must be removed and disposed of off-site.
8. Soft soils in the bottom and banks of any existing or former pond site should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on storm sewer locations.
9. Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The demolition and removal shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly cleaned prior to the placement of any fill. The Soils Engineer shall approve the clearing operation.
10. Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory roller, or high speed impact type drum rollers acceptable to the Soils Engineer. The roller shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
11. The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing full quality will be made to the Owner at regular intervals.
12. The Soils Engineer shall notify the Contractor of rejection of a lift of fill or portion thereof. The Contractor shall present the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
13. All areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted to at least 88 percent of the maximum density as determined by the Modified AASHTO T-1500 Compaction Test (ASTM-D-1557). Natural slopes steeper than 1 vertical to 3 horizontal to remain fill shall have horizontal benches, with minimum widths of 18 feet and maximum height of 4 feet, cut into the slopes before the placement of any fill. The fill shall be loosely placed in horizontal layers not exceeding 4 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
14. The sequence of operation in the fill areas will be fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2 to 4 percent above the optimum moisture content.
15. The surface of the fill shall be finished so that it will not lappond water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.
16. Fill and backfill should be compacted to the criteria specified in the following table:

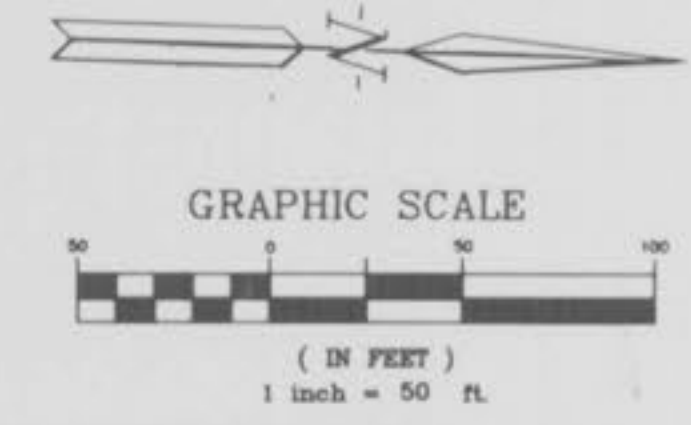
CATEGORY	MINIMUM PERCENT COMPACTION
FILL in building areas below footings	90%
FILL under slabs, walks and pavements	90%
FILL other than building areas	88%
Natural subgrade	88%
Pavement subgrade	90%
Pavement base course	90%

Measured as a percent of the maximum dry density as determined by modified Proctor test (ASTM D 1557).

Moisture content must be within 2 percent below or 4 percent above optimum moisture content if fill is deeper than 10 feet.

17. MIN SLOPE SHALL BE GREATER THAN 1:1

MISSOURI STATE HIGHWAY 79



Future 12" water line shall extend to the northwest corner of Lot 5. Actual location shall be determined at the time of development.

Detention basin to be built for the entire industrial park at the time of Lot 1, Phase 2 development or any other development in this tract. The location of the detention basin will be shown on the next site plan submitted to the Planning and Zoning Commission.

Prepared For:  
DIDION MANUFACTURING CO.  
30 Patmos Court  
St. Peters, MO. 63376  
(314) 928-1940

"AS-BUILTS"  
PICKETT RAY & SILVER

Civil Engineers  
Planners  
Land Surveyors

333 Mid Rivers Mall Dr.  
St. Peters, MO 63376  
441-1211 276-1211

SALT RIVER - RIVERSIDE IND  
INDUSTRIAL PARK

DRAWN	D.POTHAST	DATE	8-30-90
CHECKED		DATE	
FIELD BOOK	XXX	PROJECT #	88-160
		JOB ORDER #	XXX

Any trees removed or destructed during grading shall be replaced at a rate of 15 trees per acre within 2 years after completion of grading or at time of development.

Riverside Ind.

11-19-90 B.C. Revised per City of O'Fallon. Energy Dis. & Water 12" water line & detention  
1-8-91 Revised Per City of O'Fallon. 30' Bldg. Line  
AS-BUILTS

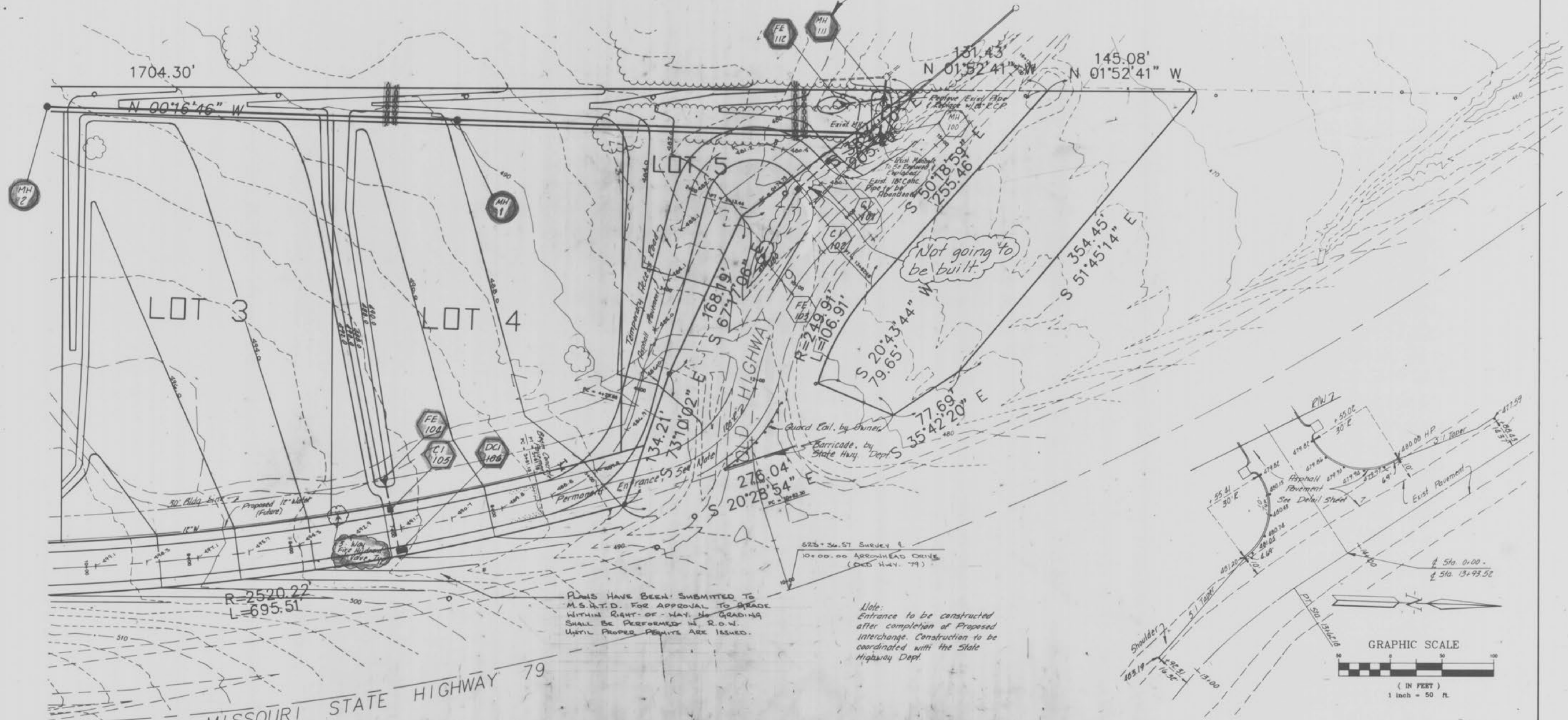


# SALT RIVER INDUSTRIAL PARK

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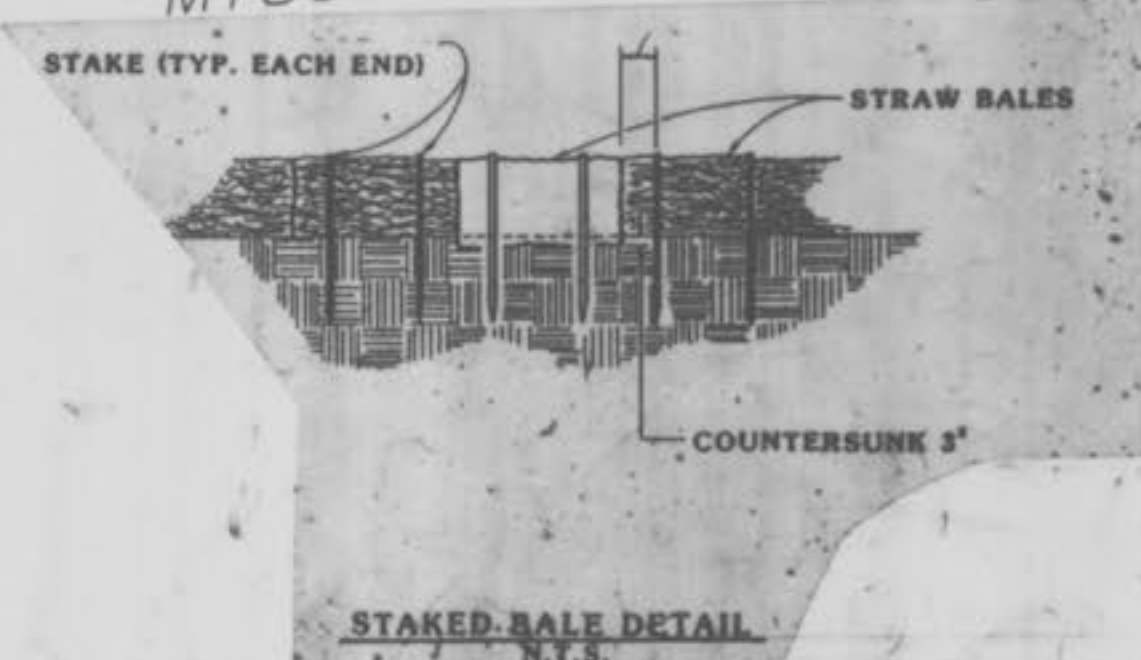
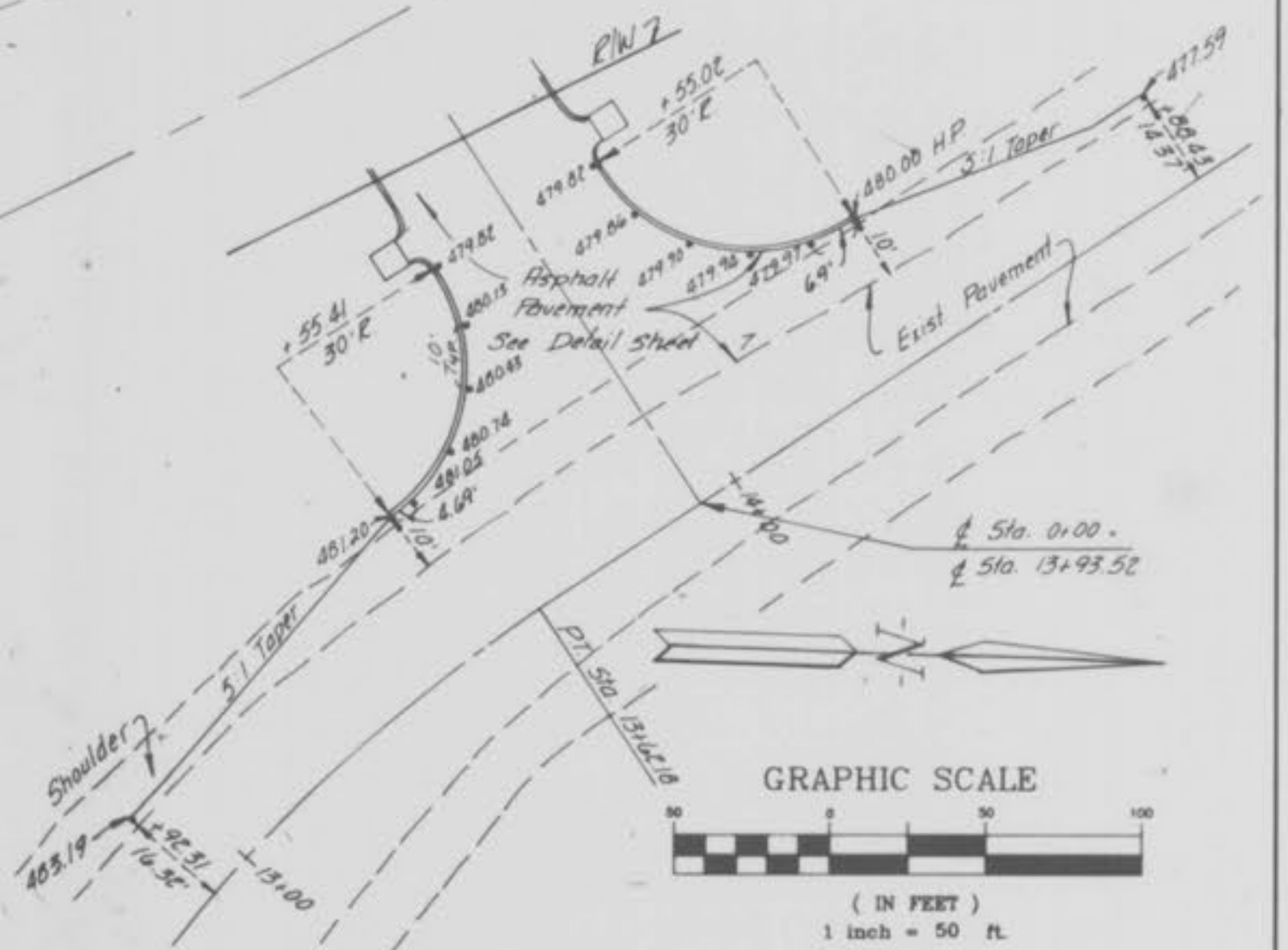
## GRADING PLAN

NOTE: SHADED "BALLOONS" INDICATE "AS-BUILT" STRUCTURES.



PLANS HAVE BEEN SUBMITTED TO M.S.R.T.D. FOR APPROVAL TO GRADE WITHIN RIGHT-OF-WAY. GRADING SHALL BE PERFORMED BY R.O.W. UNTIL PROPER PERMITS ARE ISSUED.

Note: Entrance to be constructed after completion of Proposed interchange. Construction to be coordinated with the State Highway Dept.



**Siltation Control**

SILTATION CONTROL SHALL CONSIST OF TEMPORARY BARRIERS AND SLOES TO DIVERT STORM WATER FLOW TO A NATURAL DISCHARGE POINT. (SEE GRADING PLAN FOR LOCATIONS.) AT WHICH POINT THERE SHALL BE A DOUBLE ROW OF STYRM BALES WITH FEET BY SEPARATION BETWEEN ROWS. THE STYRM BALES SHALL BE PLACED WITH A ONE FOOT SEPARATION BETWEEN BALES AND STYRM BALES SHALL BE STAGGERED. IN AREAS WHERE A ROW AND SLOES ARE NOT FEASIBLE, A SINGLE ROW OF STYRM BALES SHALL BE PLACED END TO END TO PREVENT ADJACENT PROPERTY AND RIGHT-OF-WAYS FROM BEING THE RESPONSIBILITY OF THE SLOES CONTRACTOR OR DEVELOPER IF SO ORDERED. UPON COMPLETION OF STYRM BARRIERS, STYRM BALES SHALL BE PLACED ON ALL SIDES OF APPROPRIATE STRUCTURES TO KEEP SILT OUT OF STORM SEWER THIS SHALL BE THE RESPONSIBILITY OF THE SLOES CONTRACTOR OR THE DEVELOPER IF SO ORDERED. ALL STYRM BALES SHALL BE SECURELY BARRIERS AND PROPERLY MAINTAINED UNTIL ALL DISTURBED AREAS ARE COVERED OR VEGETATION ESTABLISHED.

GRADING QUANTITIES:

CUT	82,074 CU. YDS.
FILL	4,753 CU. YDS.
EXPORT	77,321 CU. YDS.

The total yardage for this project is based on a 15% shrinkage factor. This shrinkage factor is subject to change, due to soil conditions, (types and moisture content) weather conditions, and the percent compaction actually achieved. As a result, adjustments in final grades may be required.

**PICKETT RAY & SILVER**

Civil Engineers  
Planners  
Land Surveyors

333 Mid Rivers Mall Dr.  
St. Peters, MO 63376  
441-1211 178-1211

**SALT RIVER - RIVERSIDE INDUSTRIAL PARK**

DRAWN D.POTTHAST DATE 8-30-90  
CHECKED DATE  
FIELD BOOK XXX PROJECT # 88-160  
JOB ORDER # XXX

3/4

"AS-BUILTS"

Riverside

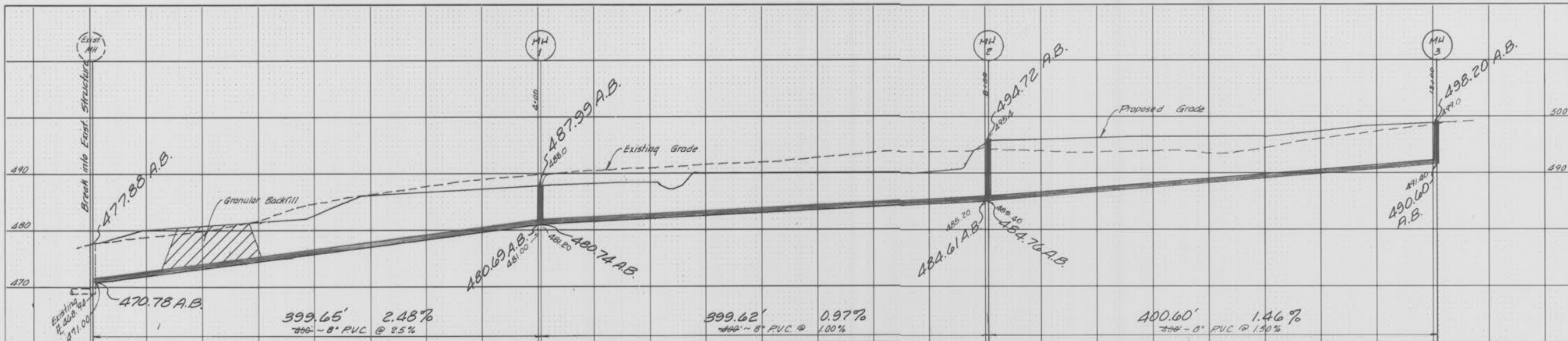
11-19-90 B.C. Revised per City of O'Fallon - future water line / additional Siltation Control  
1-25-91 B.C. - Revised per City of O'Fallon, 30' Bldg Line AS-BUILTS



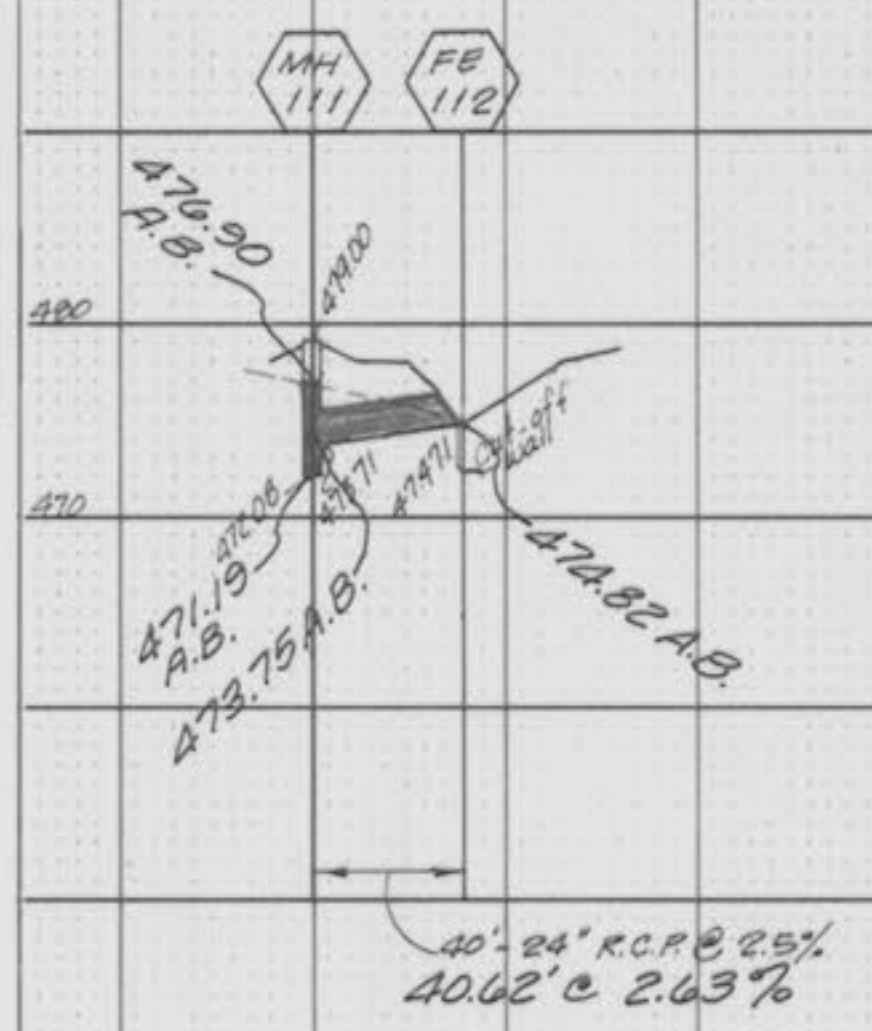
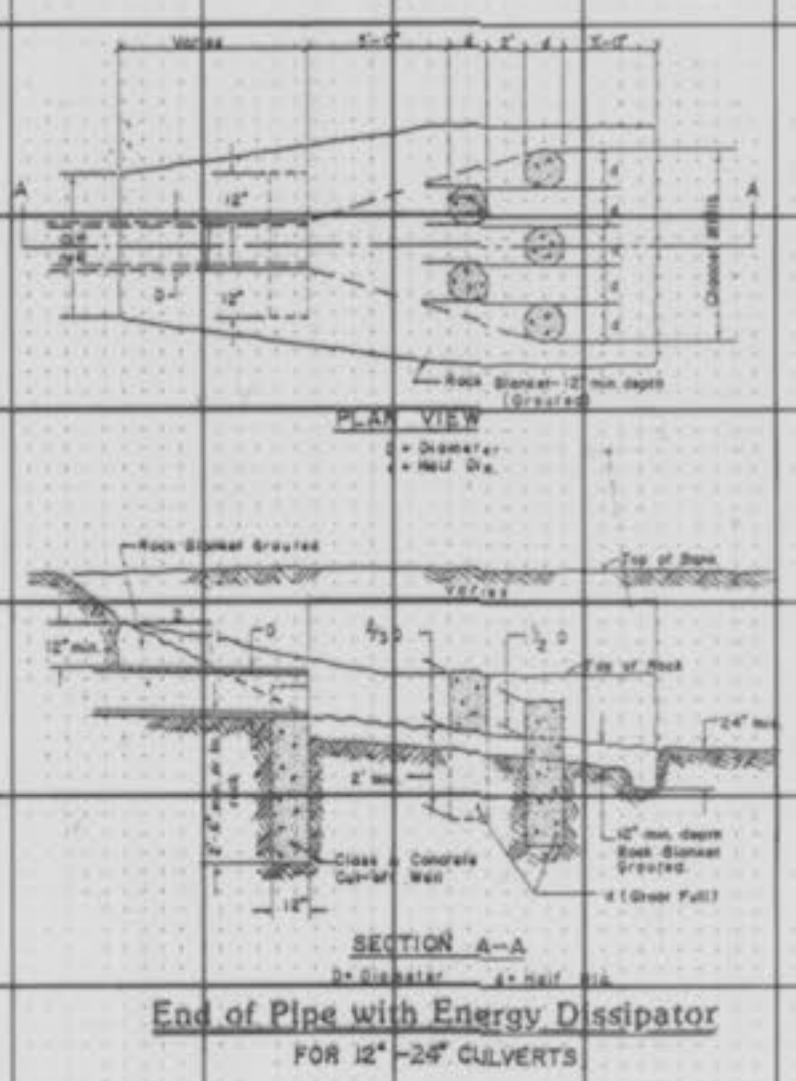
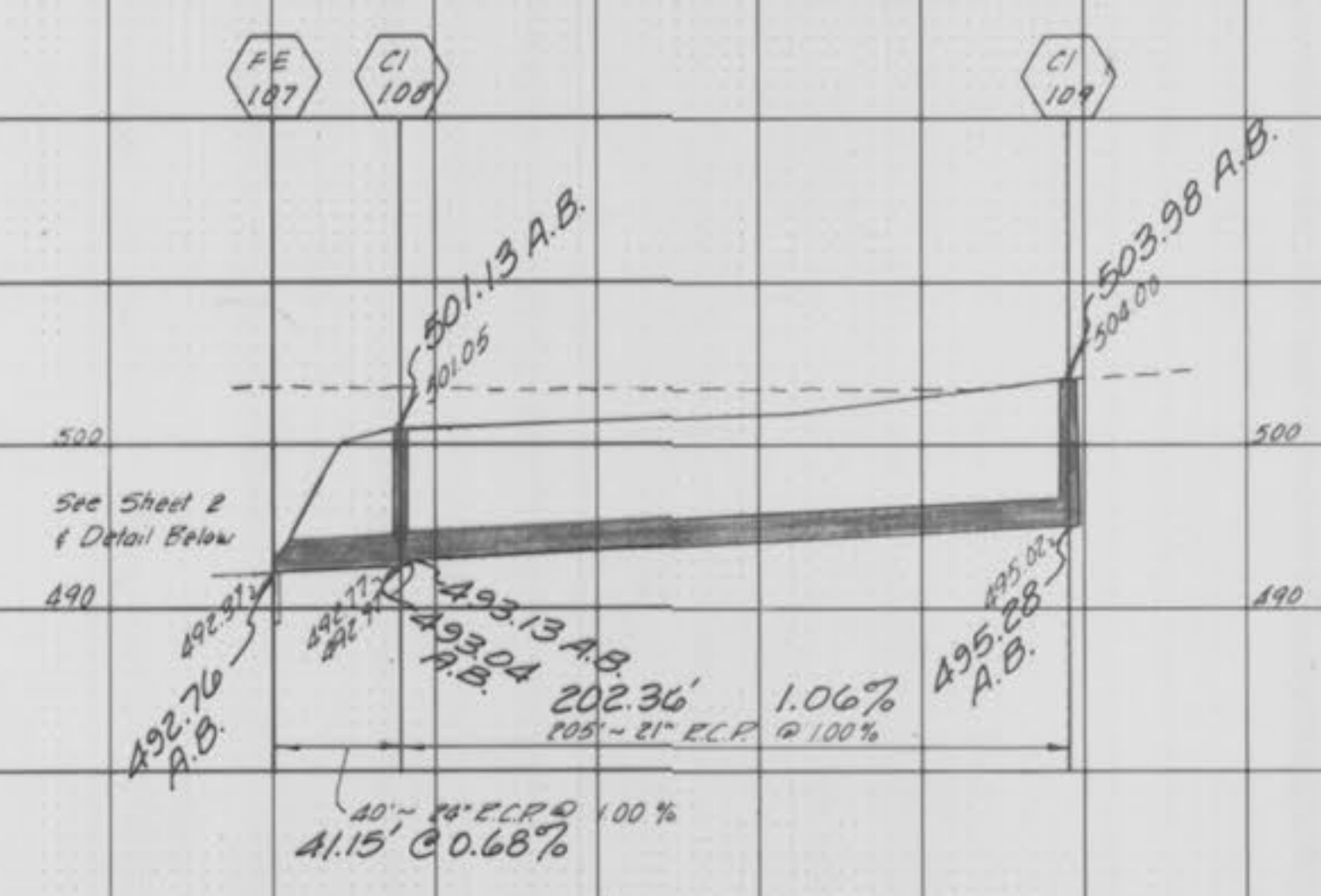
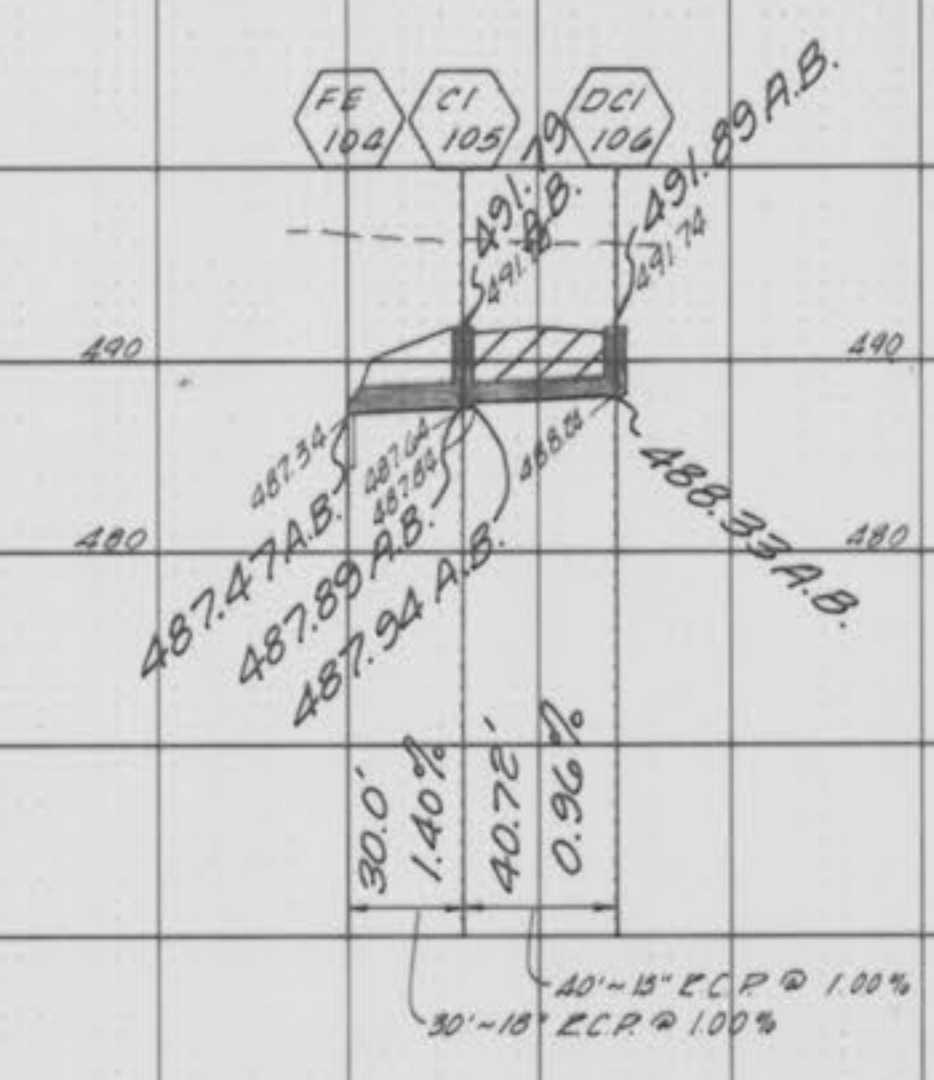
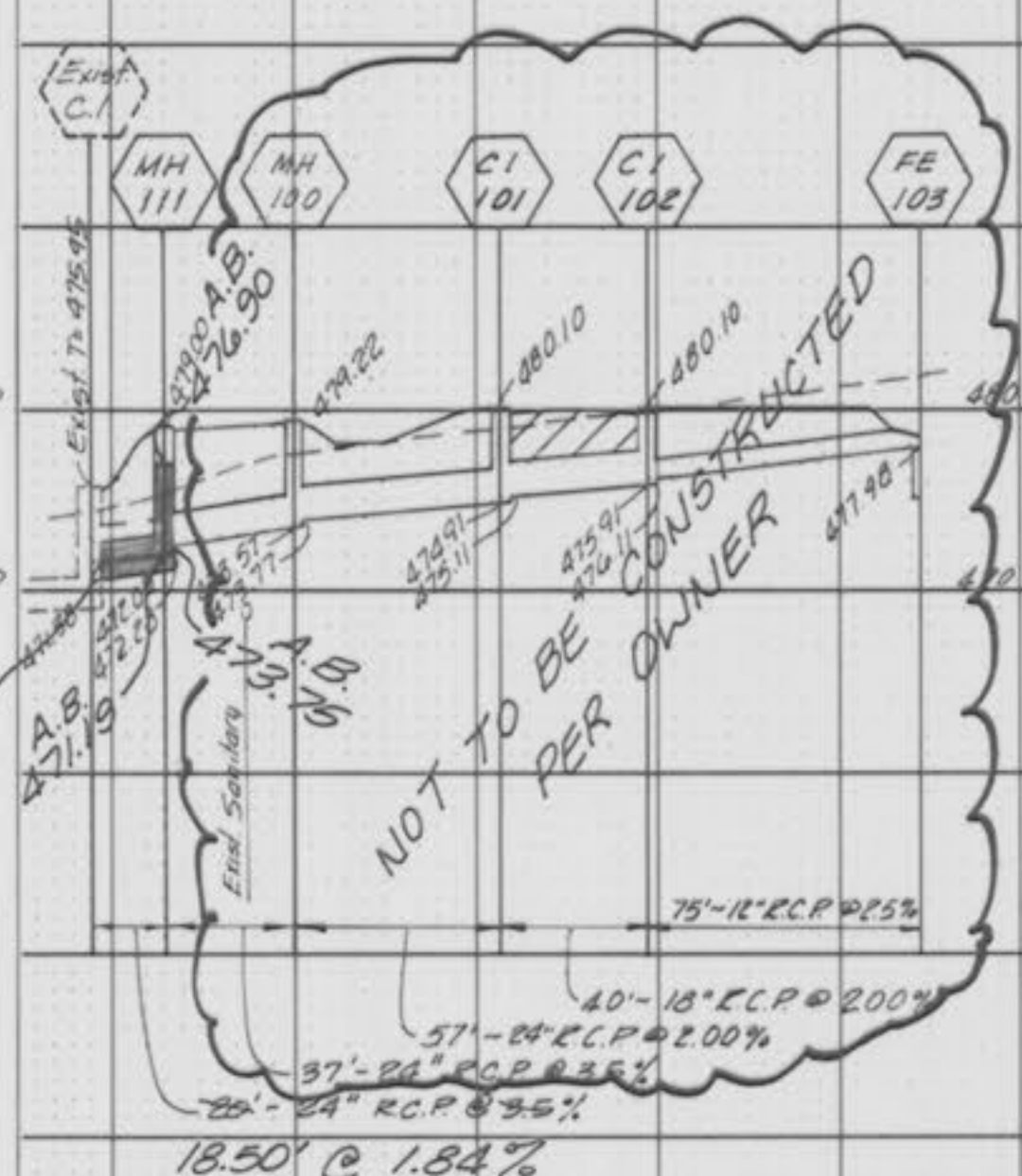
NOTE: A.B. = "AS-BUILT"

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SURVEYED \_\_\_\_\_  
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AREAS CHECKED \_\_\_\_\_

DATE \_\_\_\_\_  
BY \_\_\_\_\_  
ORIGINAL SURVEY \_\_\_\_\_  
PLOTTED \_\_\_\_\_  
NOTE BOOK NO. \_\_\_\_\_  
AREAS CHECKED \_\_\_\_\_



NOTE: A.B. = "AS-BUILT"



B.C. Licensed per City Energy Diss. 11-19-90  
B.C. Licensed per City of Fallon 11-14-90  
B.C. Licensed per City of Fallon 11-8-90

844