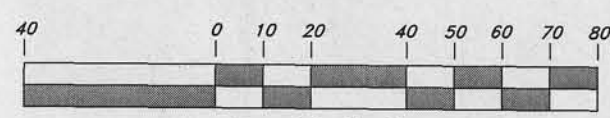




Scale: 1" = 40'



Graphic Scale

Benchmark:
Top of Nail approximately 43 feet
northeast of the Southeast Corner of
Lot 41, Phase 11, Summit at Ski Lake
Subdivision in Weber County, Utah.
Elev: 5213.16

Granular Barrow

STREET DESIGN	R.O.W. WIDTH	Subgrade Course Width	Shoulder Width
1 Minor and/or Private	50'	24'	4'
Standard Residential	60'	24'	4'
Collector	66'	28'	5'
2 Minor Arterial	80'	44' (30")	4' 3/4
2 Major Arterial	100'	44' (Consult County Engineer for Specific Requirements)	

Standard Rural Roadway Section

NOTE: These pavement thicknesses shall be considered as minimums and may be governed by the County Engineer when a greater depth is necessary to provide an adequate drainage system based on an alternative pavement design based on a detailed soil analysis for approved by the County Engineer.

2) County Engineer shall provide pavement design (Subgrade) strength with any City per County.

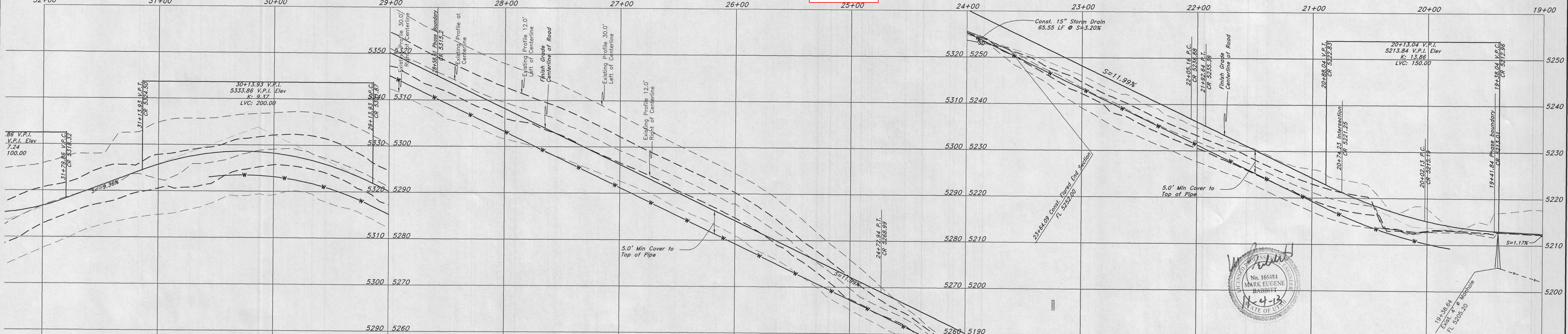
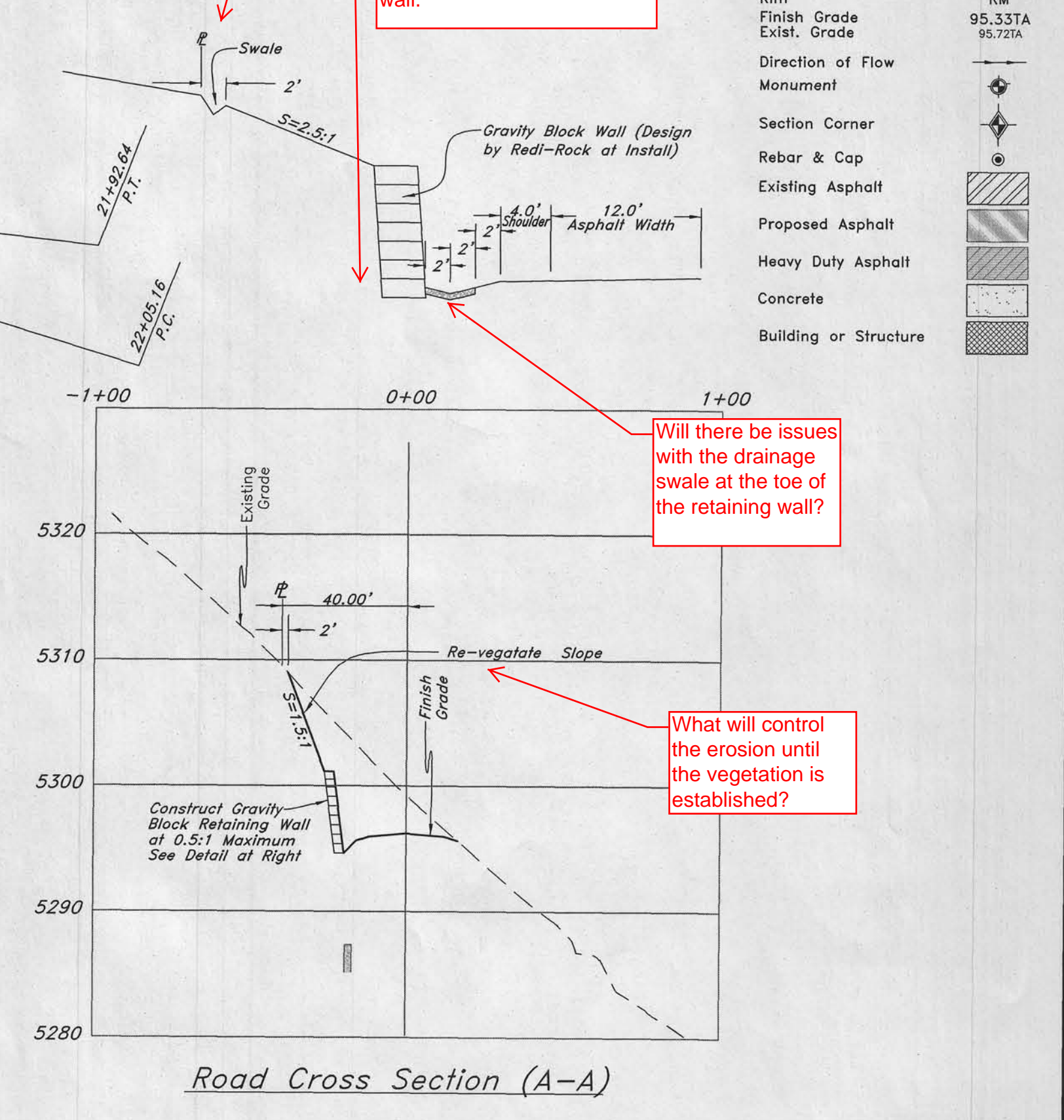
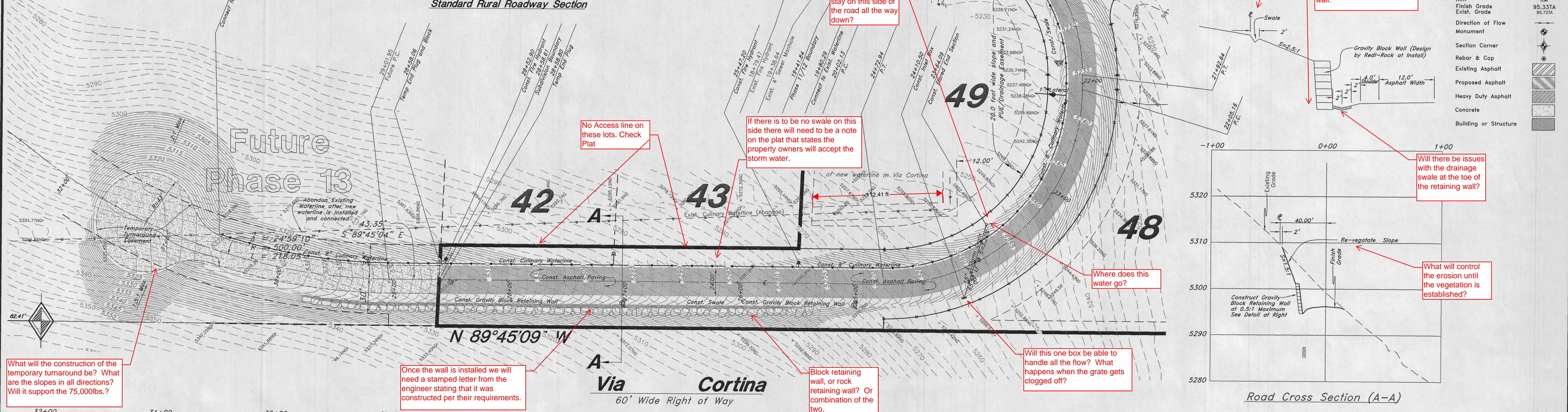
3) This width may be used in the direction of the County if not necessary.

Erosion Control Notes :

- Sandbags will be placed at discharge locations to contain and divert storm water through straw bales.
- An earthen berm 6" high will be constructed to contain the storm water and divert it to discharge areas.
- Storm water will be discharged into an existing drainage system. Existing Lines shall be inspected prior to Certificate of Occupancy and cleaned if necessary.
- The Storm Water Prevention Plan shall conform to all State Division of Environmental Protection Regulations.

Legend

- (Note: All items may not appear on drawing)
- Sanitary Sewer Manhole
 - Water Manhole
 - Storm Drain Manhole
 - Electric Manhole
 - Catch Basin
 - Proposed Fire Hydrant
 - Exist. Fire Hydrant
 - Proposed Water Valve
 - Sanitary Sewer Line
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 - Gas Line
 - Irrigation Line
 - Storm Drain Line
 - Telephone Line
 - Secondary Water Line
 - Underground Power Line
 - Land Drain Line
 - Flowline of Ditch
 - Polyvinyl Chloride
 - Top of Asphalt
 - Edge of Asphalt
 - Centerline
 - Flowline
 - Top of Curb
 - Rim
 - Finish Grade
 - Exist. Grade
 - Direction of Flow
 - Monument
 - Section Corner
 - Rebar & Cap
 - Existing Asphalt
 - Proposed Asphalt
 - Heavy Duty Asphalt
 - Concrete
 - Building or Structure



What will the construction of the temporary turnaround be? What are the slopes in all directions? Will it support the 75,000lbs.?

Once the wall is installed we will need a stamped letter from the engineer stating that it was constructed per their requirements.

Block retaining wall, or rock retaining wall? Or combination of the two.

Will this one box be able to handle all the flow? What happens when the grate gets clogged off?

Where does this water go?

Where will this water be directed?

Does there need to be any drainage behind the retaining wall.

Will there be issues with the drainage swale at the toe of the retaining wall?

What will control the erosion until the vegetation is established?

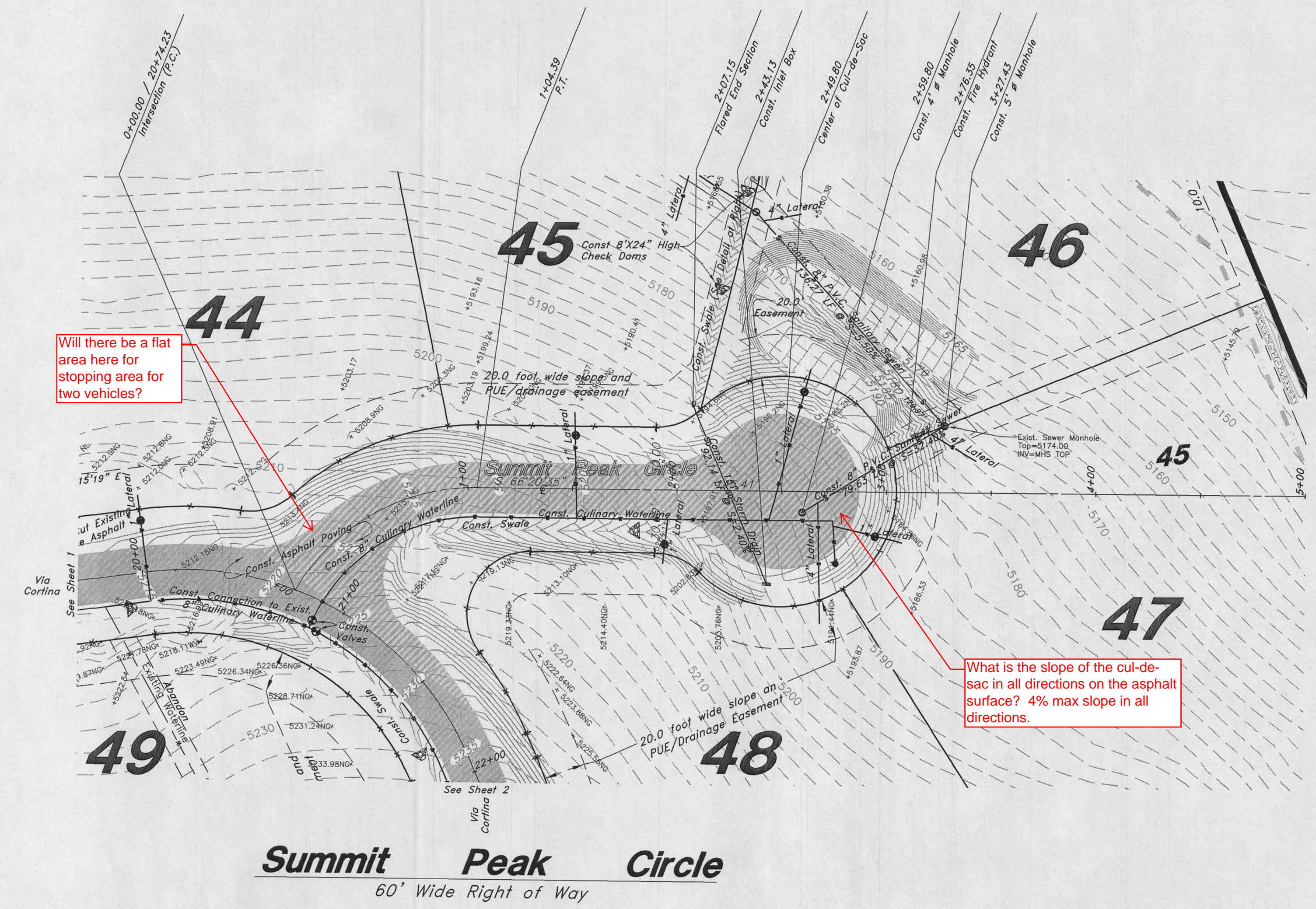
Plan and Profile

GREAT BASIN ENGINEERING NORTH
CONSULTING ENGINEERS AND SURVEYORS
5746 South 1475 East - Suite 200
Ogden, Utah 84403
P.O. Box 150048, Ogden, Utah 84415
Ogden (801)304-4515 Salt Lake City (801)321-0222 Fax (801)302-7844

SCALE: 1" = 40'
DATE: 26 Jun, 2013
DRAWN: RB
REVISIONS:
11N224
DRWG. NO. 1
Of 5

The Summit at Ski Lake Phase 12
A part of the Southwest 1/4 of Section 13, a part of the Northeast 1/4 of Section 23, and a part of the Northwest 1/4 of Section 24, T6N, R1E, SLB&M, U.S. Survey

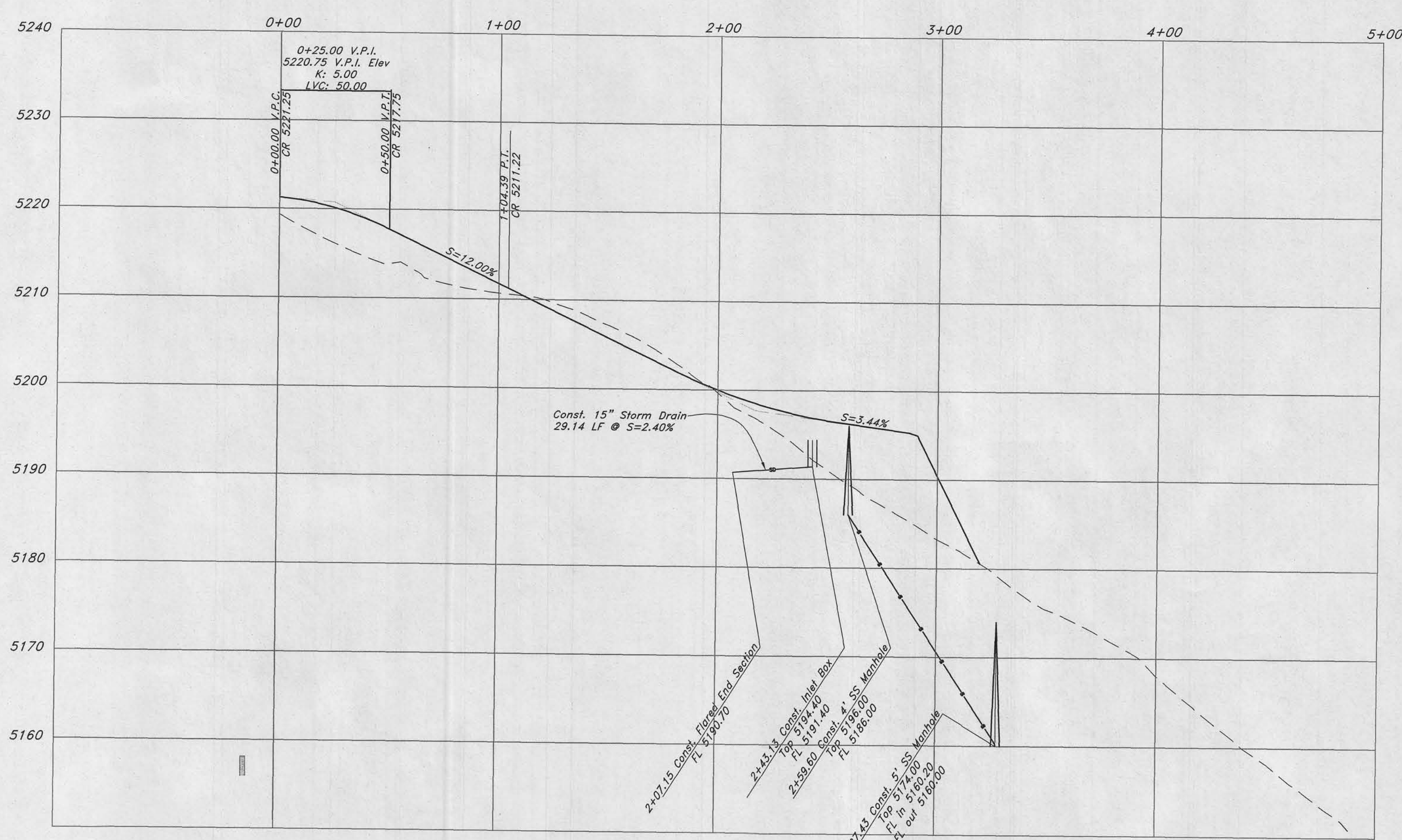




Will there be a flat area here for stopping area for two vehicles?

What is the slope of the cul-de-sac in all directions on the asphalt surface? 4% max slope in all directions.

Summit Peak Circle
60' Wide Right of Way



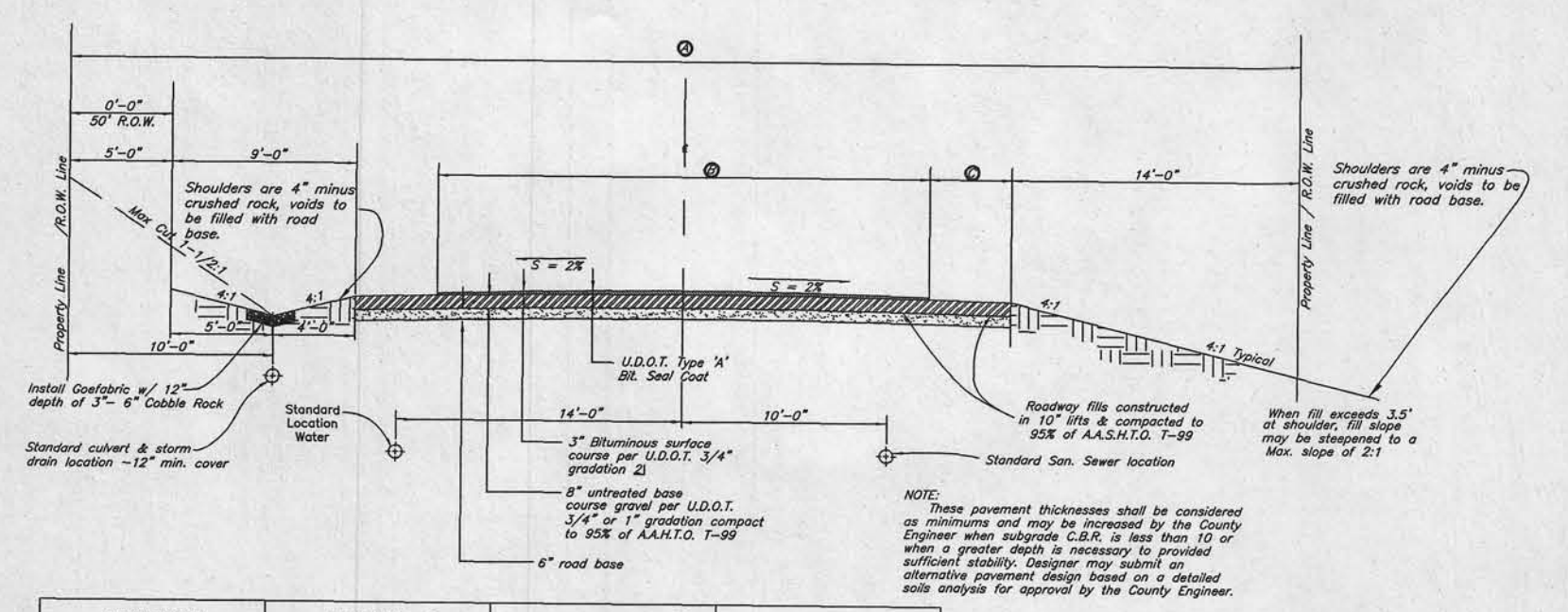
- General Utility Notes:**
1. Coordinate all utility connections to building with plumbing plans and building contractor.
 2. Verify depth and location of all existing utilities prior to constructing any new utility lines. Notify Civil Engineer of any discrepancies or conflicts prior to any connections being made.
 3. All catch basin and inlet box grates are to be bicycle proof.
 4. All inlet boxes located in curb and gutter are to be placed parallel to the curb and gutter and set under the frame and grate. Improperly placed boxes will be removed and replaced at no additional cost to the owner. Precast or cast in place boxes are acceptable.
 5. Refer to the site electrical plan for details and locations of electrical lines, transformers and light poles.
 6. Gas lines, telephone lines, and cable TV lines are not a part of these plans unless otherwise noted.
 7. Water meters are to be installed per city standards and specifications. It will be the contractor's responsibility to install all items required.
 8. Water lines, valves, fire hydrants, fittings etc. are to be constructed as shown. Contractor is responsible to construct any vertical adjustments necessary to clear sewer, storm drain or other utilities as necessary including valve boxes and hydrant spoils to proper grade.
 9. Field verify all existing and/or proposed Roof Drain/Roof Drain down spout connections to Storm Water System with Civil, Plumbing & Architectural plans. Notify Engineer of any discrepancies.
- Utility Piping Materials:**
- All piping to be installed per manufacturers recommendations. Refer to project specifications for more detailed information regarding materials, installation, etc.
- Culinary Service Laterals**
1. 3/4" to 2" diameter pipe - copper tube ASTM B, Type K, Soft Temper
 2. Over 2" diameter pipe - AWWA C-300 Class 150 pipe
- Water Main Lines and Fire Lines**
1. Pipe material as shown on utility plan view or to meet city standards.
- Sanitary Sewer Lines**
1. All sewer piping to be Polyvinyl Chloride (PVC) sewer pipe, ASTM D 3034, Type PSM, SDR 35
- Storm Drain Lines**
1. 10" pipes or smaller - Polyvinyl Chloride (PVC) sewer pipe, ASTM D3034, Type PSM, SDR 35
 2. 12" to 21" pipes - Concrete Pipe, ASTM C14, Class III up to 13' of cover. For greater than 13' feet of cover, use reinforced concrete pipe and classes listed below.
 3. 24" pipes or larger - Reinforced Concrete Pipe, ASTM C76, Class III up to 13' of cover, Class IV for 13' to 21' of cover, Class V for 21' to 32' of cover, and Special Design for cover greater than 32 feet.

CAUTION NOTICE TO CONTRACTOR

The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility company at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.

General Notes

1. All Construction is to meet Weber County Public Works Standards.
2. Top of 8" waterline is to have a minimum of at least 60" of cover over the top of pipe. Waterline is also to have metallic locator tape installed 12-24" above pipe.
3. Verify depth and location of all existing utilities prior to constructing any new utility lines. Notify Civil Engineer of any discrepancies or conflicts prior to any connection being made.
4. Re-vegetate with native grasses and weeds to control erosion.



STREET SECTION	R.O.W. Width	Surface Course Width	Shoulder Width
1) Minor and/or Private	50'	24'	4'
Standard Residential	60'	24'	4'
Collector	66'	28'	5'
2) Minor Arterial	80'	44' (30')	4' 3/4
Major Arterial	100'	(Consult County Engineer for Specific Requirements)	

Standard Rural Roadway Section

Erosion Control Notes :

1. Sandbags will be placed at discharge locations to contain and divert storm water through straw bales.
2. An earthen berm 6" high will be constructed to contain the storm water and divert it to discharge areas.
3. Storm water will be discharged into an existing drainage system. Existing Lines shall be inspected prior to Certificate of Occupancy and cleaned if necessary.
4. The Storm Water Prevention Plan shall conform to all State Division of Environmental Protection Regulations.

- General Grading Notes:**
1. All work shall be in accordance with the County Public Works Standard.
 2. Cut slopes shall be no steeper than 2 horizontal to 1 vertical.
 3. Fill slopes shall be no steeper than 2 horizontal to 1 vertical.
 4. Fills shall be compacted per the recommendations of the geotechnical report prepared for the project and shall be certified by the geotechnical engineer.
 5. Areas to receive fill shall be properly prepared and approved by the City Inspector and geotechnical Engineer prior to placing fill.
 6. Fills shall be benched into competent material as per specifications and geotechnical report.
 7. The final composition report and certification from the geotechnical engineer per the grading code.
 8. A geotechnical engineer shall perform periodic inspections and submit a complete report and map upon completion of the rough grading.
 9. The final composition report and certification from the geotechnical engineer shall contain the type of field testing performed. Each test shall be identified with the method of obtaining the in-place density, whether sand cone or drive ring and shall be so noted for each test. Sufficient maximum density determinations shall be performed to verify the accuracy of the maximum density curves used by the field technician.
 10. Dust shall be controlled by watering.
 11. The location and protection of all utilities is the responsibility of the permittee.
 12. Approved protective measures and temporary drainage provisions must be used to protect adjoining properties during the grading project.
 13. All public roadways must be cleaned daily of all dirt, mud and debris deposited on them as a result of the grading operation. Cleaning is to be done to the satisfaction of the city engineer.
 14. The site shall be cleared and grubbed of all vegetation and deleterious matter prior to grading.
 15. The contractor shall provide shoring in accordance with OSHA requirements for trench walls.
 16. Aggregate base shall be compacted per the geotechnical report prepared for the project.
 17. Elevation shown on this plan are finish grades. Rough grades are the subgrades of the improvements shown herein.
 18. As part of the construction documents, owner has provided contractor with a topographic survey performed by manual or aerial means. Such survey was prepared for project design purposes and is provided to the contractor as a courtesy. It is expressly understood that such survey may not accurately reflect existing topographic conditions.
 19. Erosion Control: Protect all inlet boxes, catch basins, etc. with straw bales or other approved method to strain the storm water during construction. Protect surrounding properties and streets from site runoff with sandbags and earth berms.

Legend

- (Note: All items may not appear on drawing)
- Sanitary Sewer Manhole
 - Water Manhole
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 - Land Drain Line
 - Fence
 - Flowline of Ditch
 - Polyvinyl Chloride
 - Top of Asphalt
 - Edge of Asphalt
 - Centerline
 - Flowline
 - Top of Curb
 - Rim
 - Finish Grade
 - Exist. Grade
 - Direction of Flow
 - Monument
 - Section Corner
 - Rebar & Cap
 - Existing Asphalt
 - Proposed Asphalt
 - Heavy Duty Asphalt
 - Concrete
 - Building or Structure

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify, and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

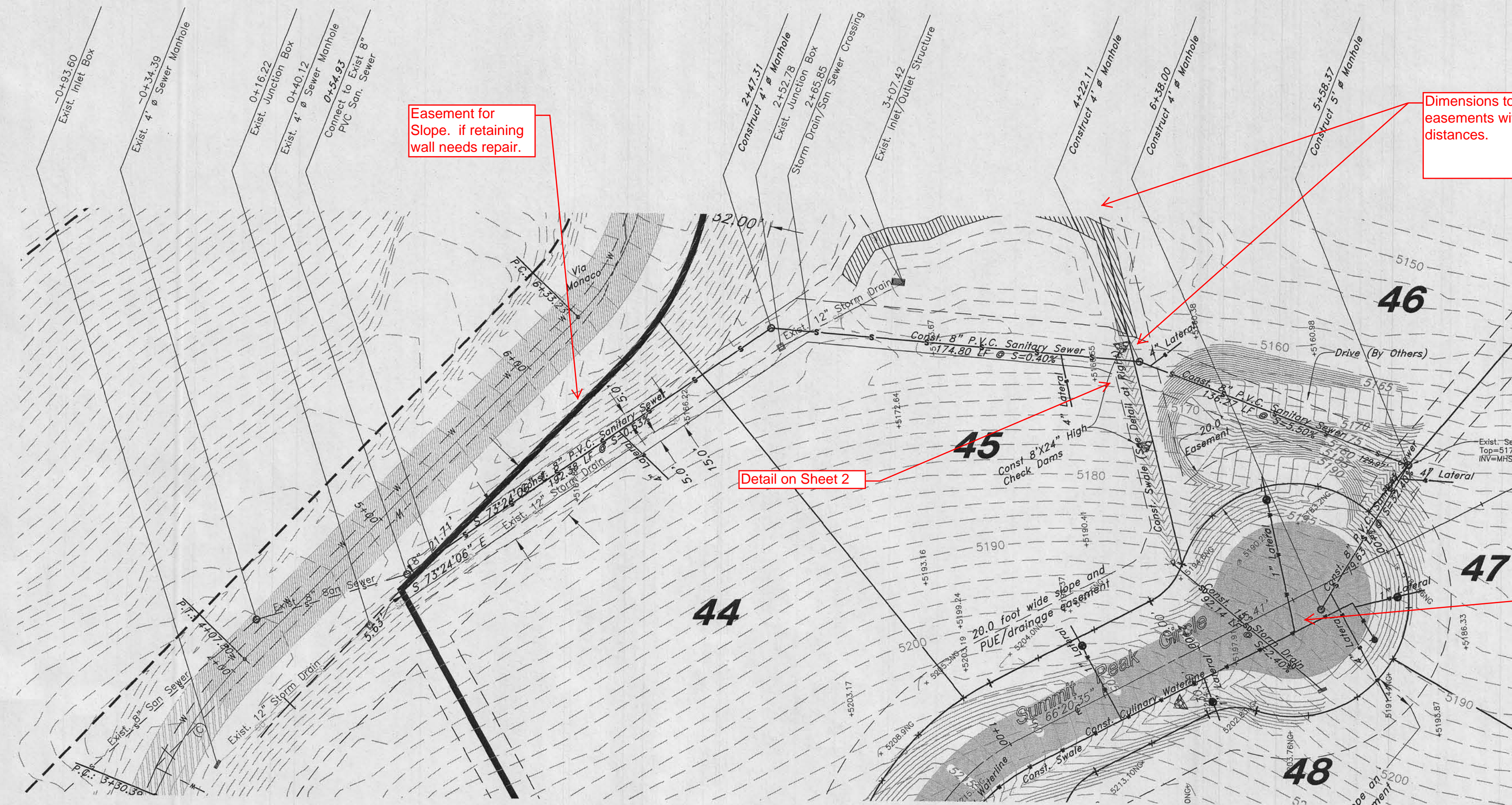
ALL CONSTRUCTION TO CONFORM TO COUNTY STANDARDS AND SPECIFICATIONS IN RIGHT OF WAY

Plan and Profile

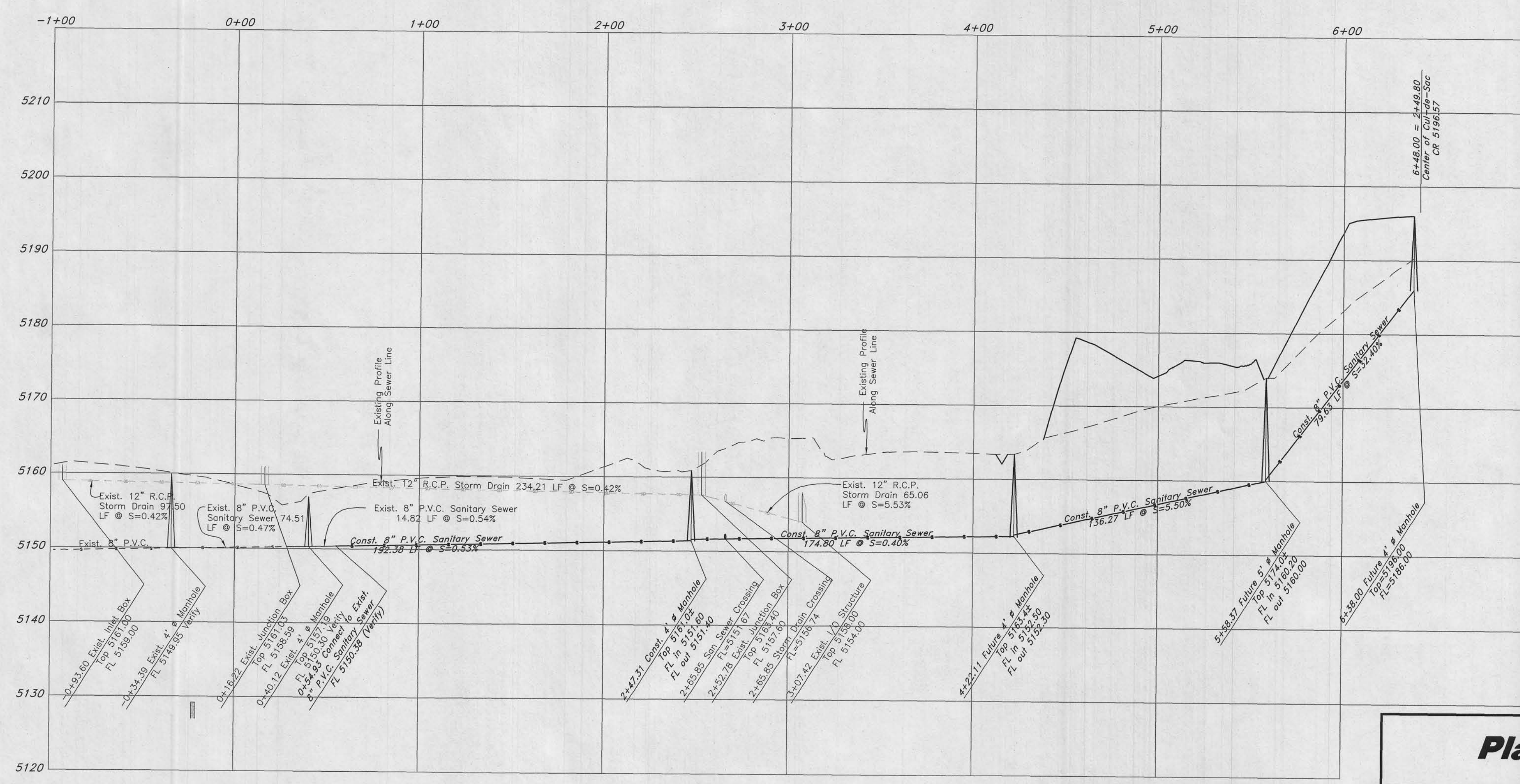
The Summit at Ski Lake Phase 12
A part of the Southwest 1/4 of Section 13, a part of the Northeast 1/4 of Section 23, and a part of the Northwest 1/4 of Section 24, T6N, R1E, SLB&M, U.S. Survey.

<p>GREAT BASIN ENGINEERING NORTH CONSULTING ENGINEERS AND SURVEYORS 5746 South 1475 East - Suite 200 Ogden, Utah 84403 P.O. Box 150048, Ogden, Utah 84415 Ogden (801)358-4515 Salt Lake City (801)521-0222 Fax (801)352-7544</p>	SCALE : 1" = 40'	DATE : 26 Jun, 2013	DRWG. NO.
	DRAWN : RB	REVISIONS :	2
	IIN224		Of 5



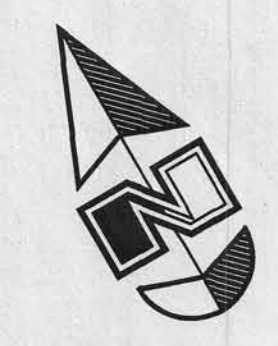


East Sanitary Sewer Outfall

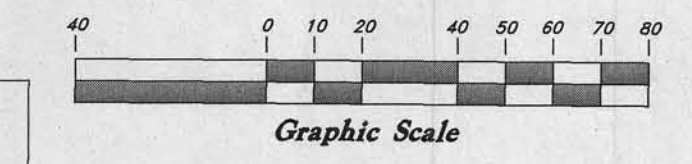


Legend
(Note: All items may not appear on drawing)

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Scale: 1" = 40'



Plan and Profile

The Summit at Ski Lake Phase 12
A part of the Southwest 1/4 of Section 13, a part of the Northeast 1/4 of Section 23, and a part of the Northwest 1/4 of Section 24, 16N, 11E, SLB&M, U.S. Survey

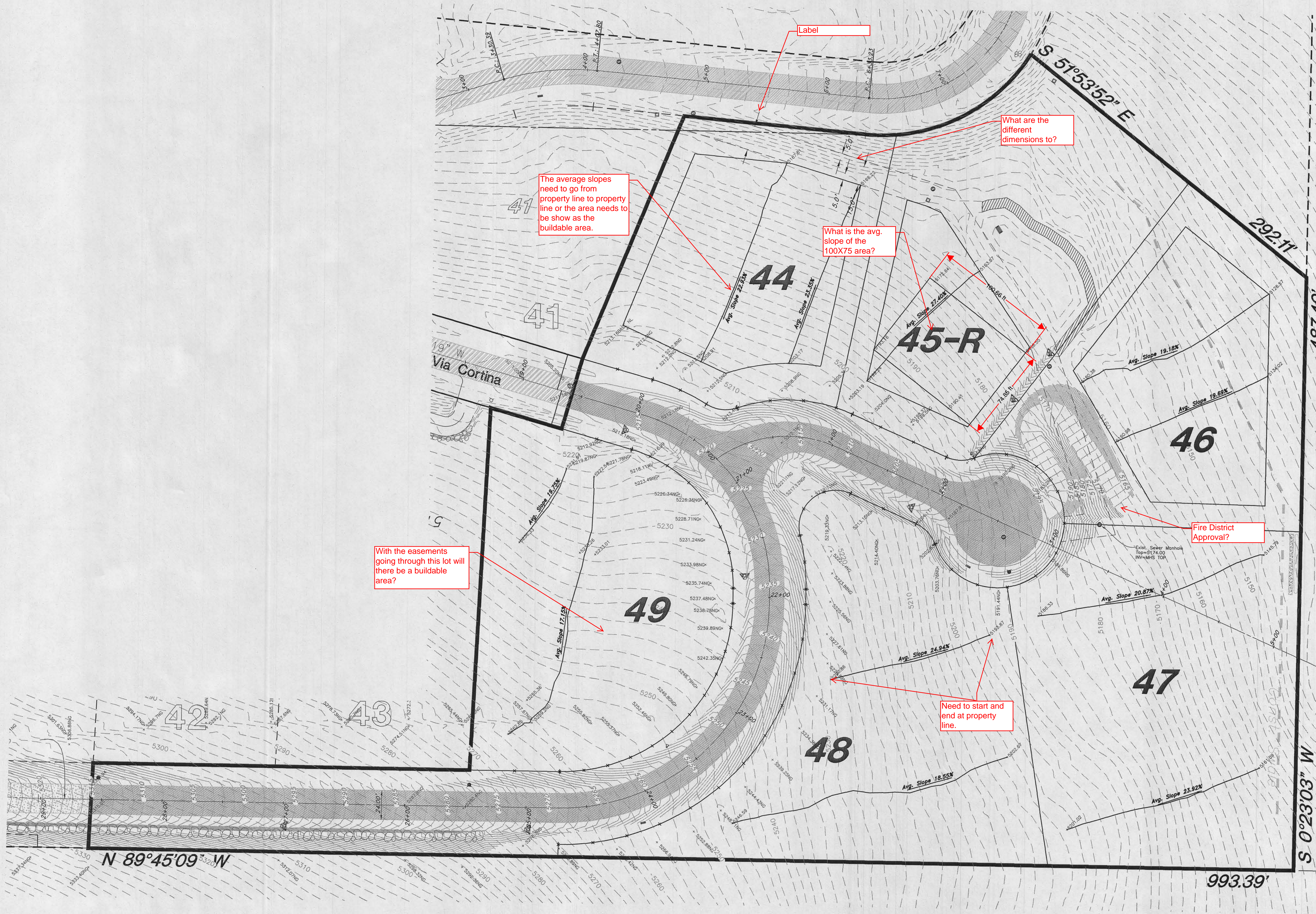
GREAT BASIN ENGINEERING NORTH
CONSULTING ENGINEERS AND SURVEYORS
5746 South 1475 East - Suite 200
Ogden, Utah 84403
P.O. Box 150048, Ogden, Utah 84415
Ogden (801)384-4515 Salt Lake City (801)321-0232 Fax (801)382-7544

SCALE: 1" = 40'	DATE: 26 Jun, 2013	DRWG. NO. 3
DRAWN: RB	REVISIONS:	Of 5
11N224		

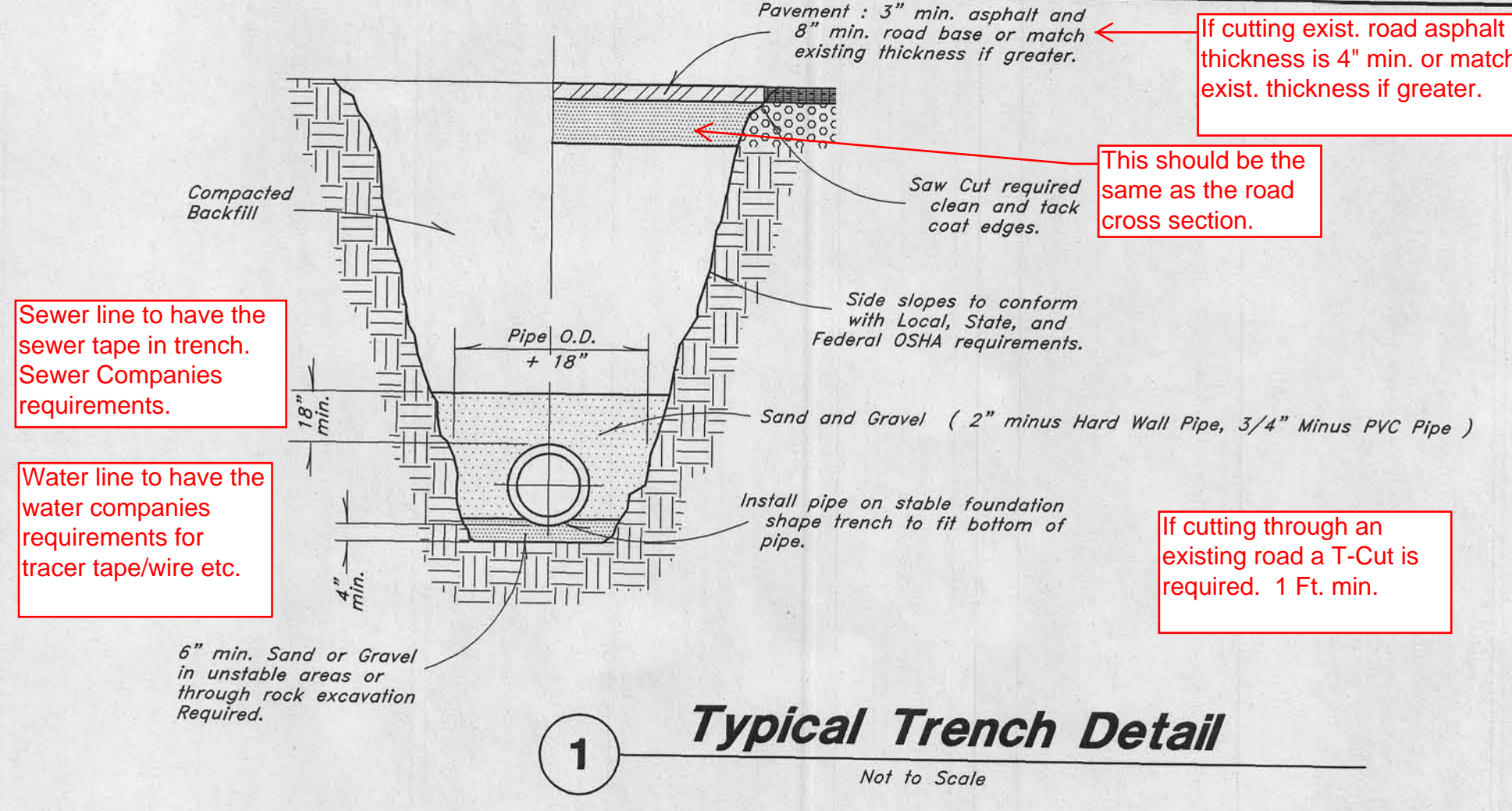
Legend

(Note: All items may not appear on drawing)

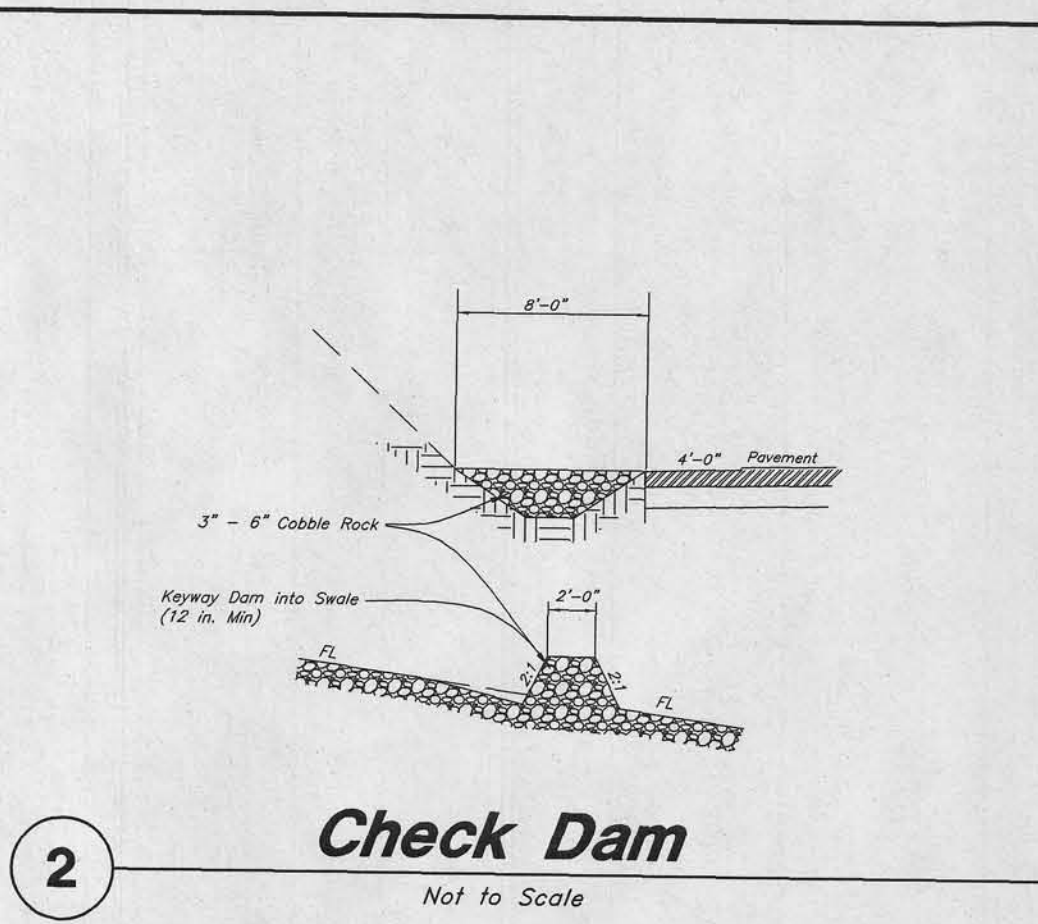
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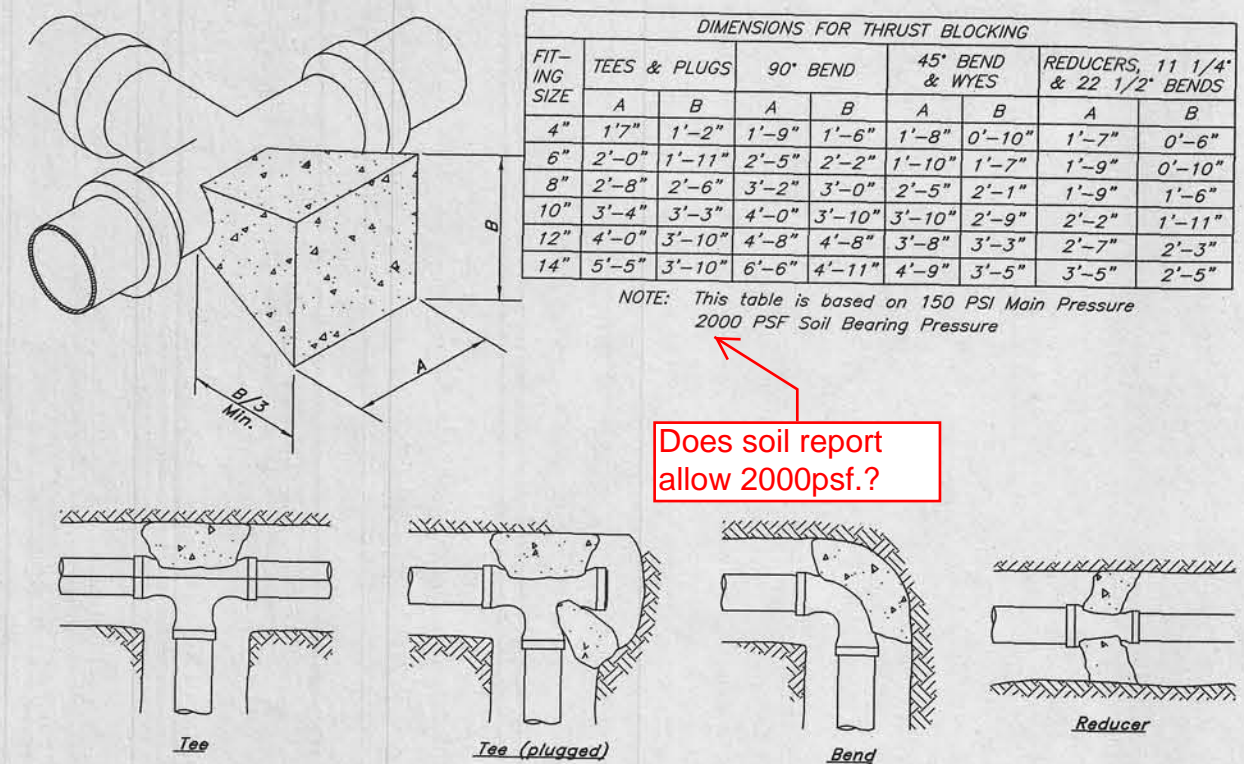
<h2>Slope Study</h2>		The Summit at Ski Lake Phase 12	
<small>A part of the Southwest 1/4 of Section 13, a part of the Northeast 1/4 of Section 23, and a part of the Northwest 1/4 of Section 24, T6N, R1E, SLB&M, U.S. Survey</small>			
GREAT BASIN ENGINEERING NORTH <small>CONSULTING ENGINEERS AND SURVEYORS</small> 5746 South 1475 East - Suite 200 Ogden, Utah 84403 P.O. Box 150048, Ogden, Utah 84415 <small>Ogden (801)384-4315 Salt Lake City (801)521-0222 Fax (801)382-7544</small>	SCALE : 1" = 40'	DATE : 26 Jun, 2013	DRWG. NO.
	DRAWN : RB	REVISIONS :	4
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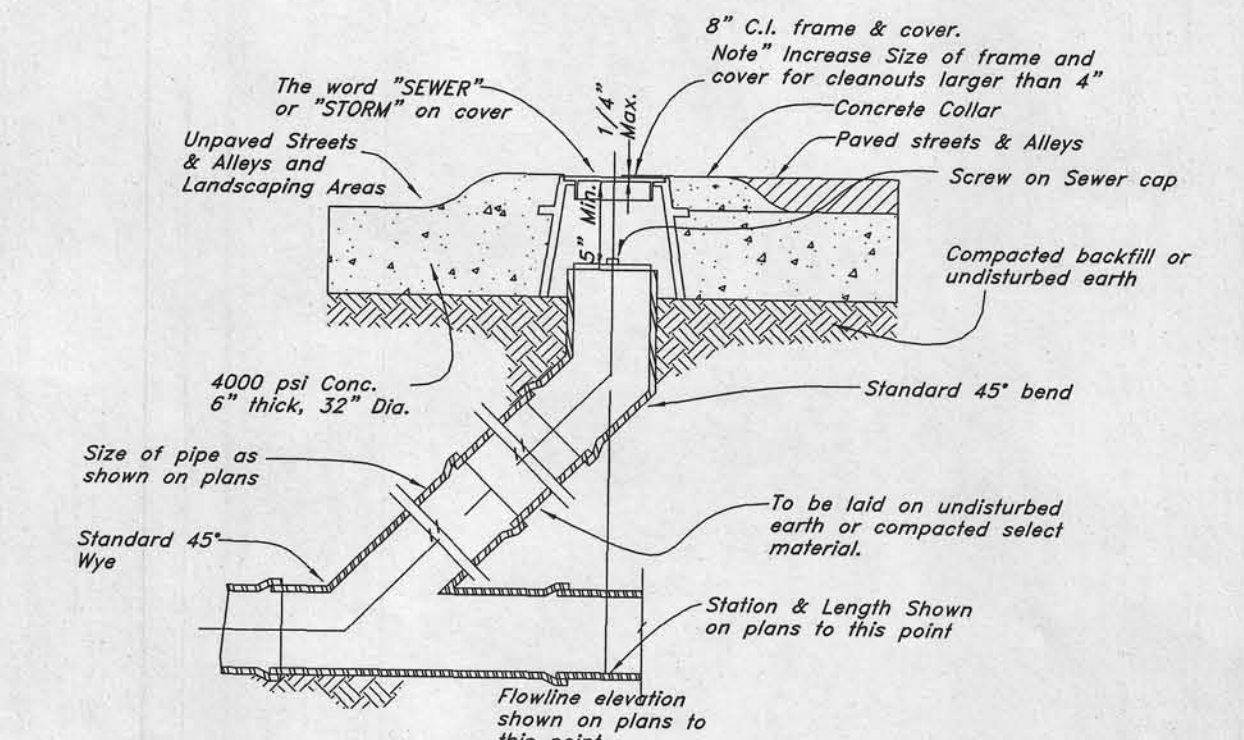
1 Typical Trench Detail
Not to Scale



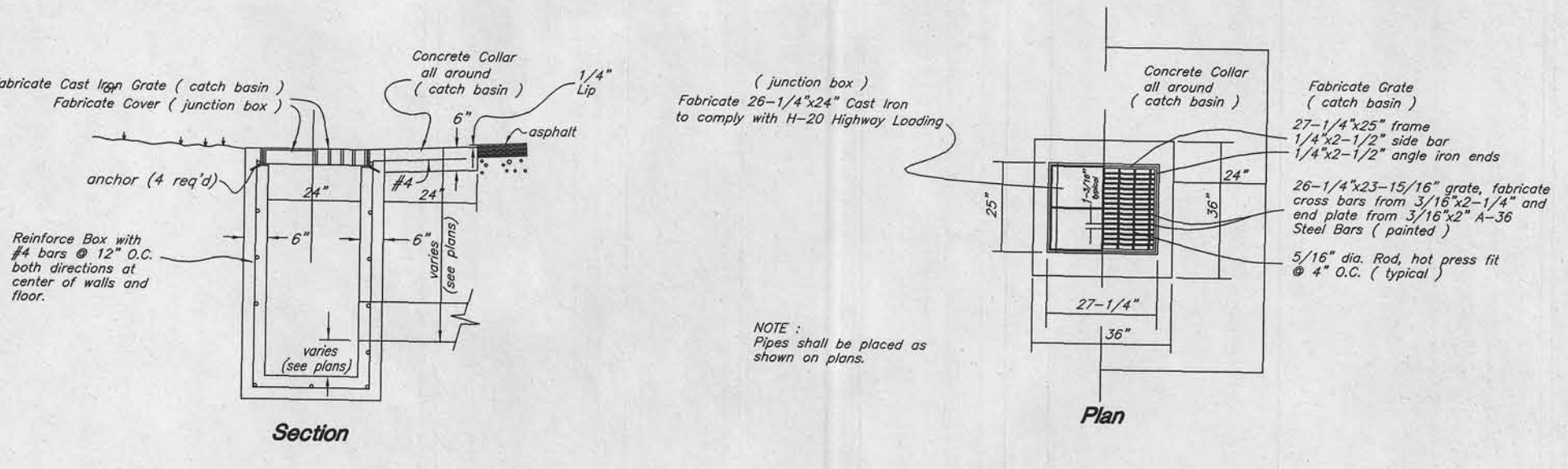
2 Check Dam
Not to Scale



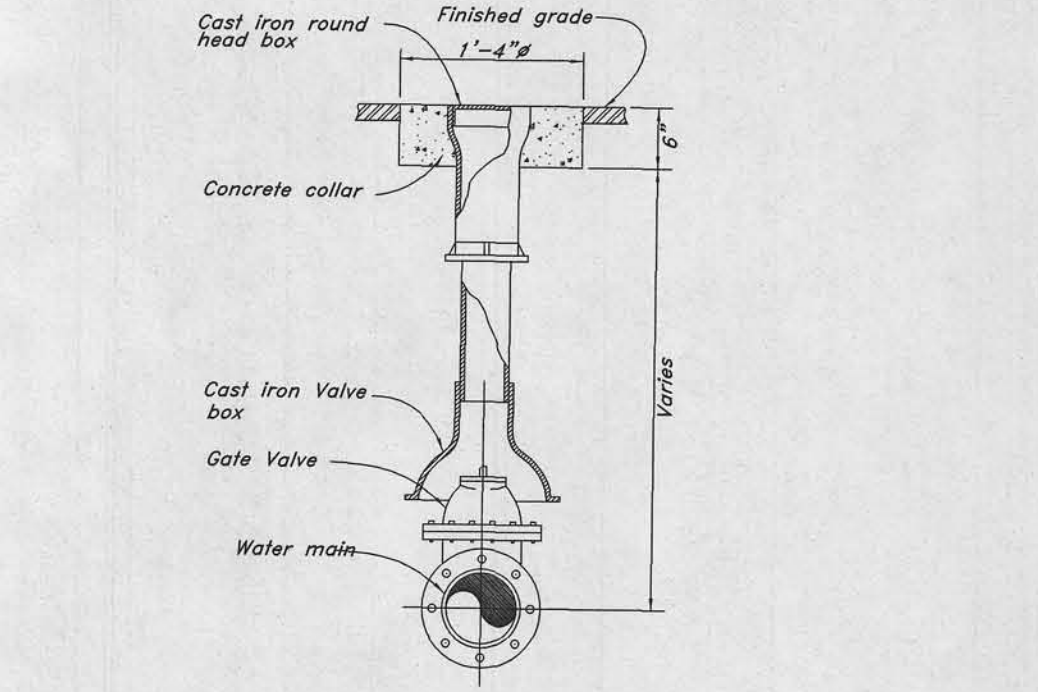
3 Thrust Blocking Details
Not to Scale



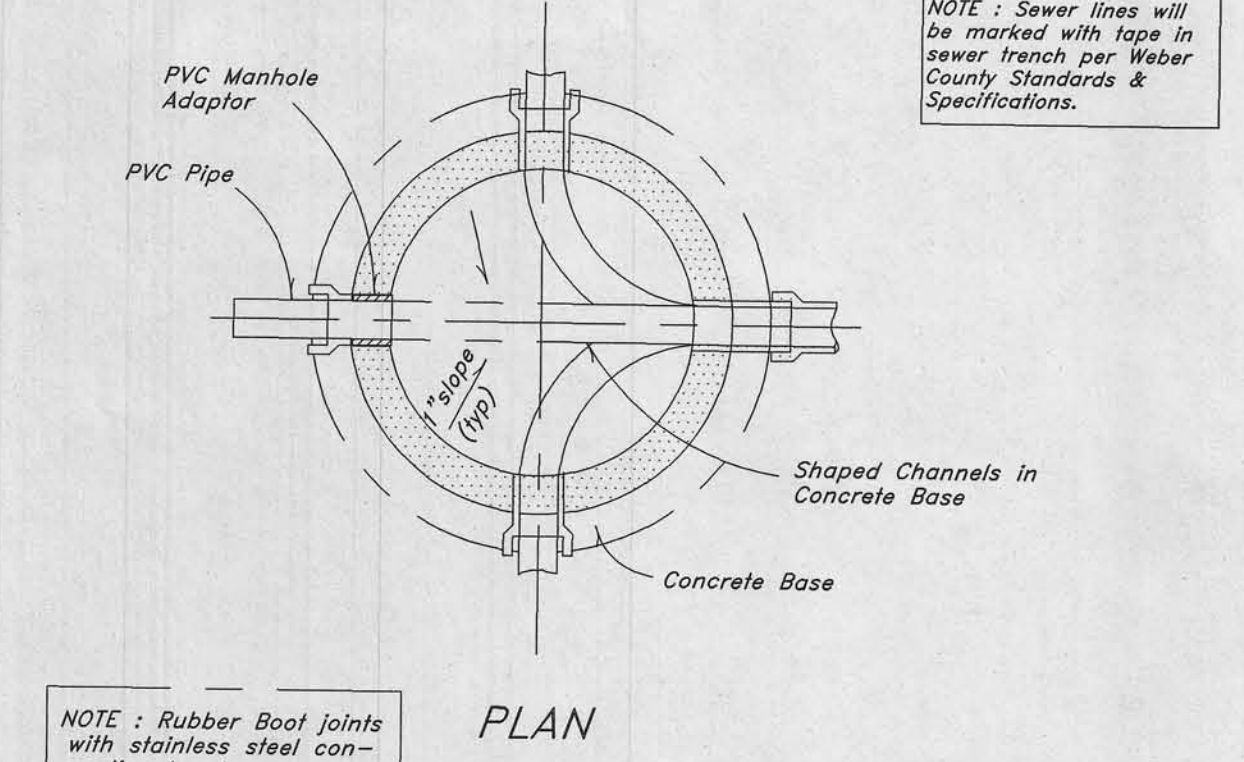
4 Sewer, Storm, and Roof Drain Cleanout Detail
Not to Scale



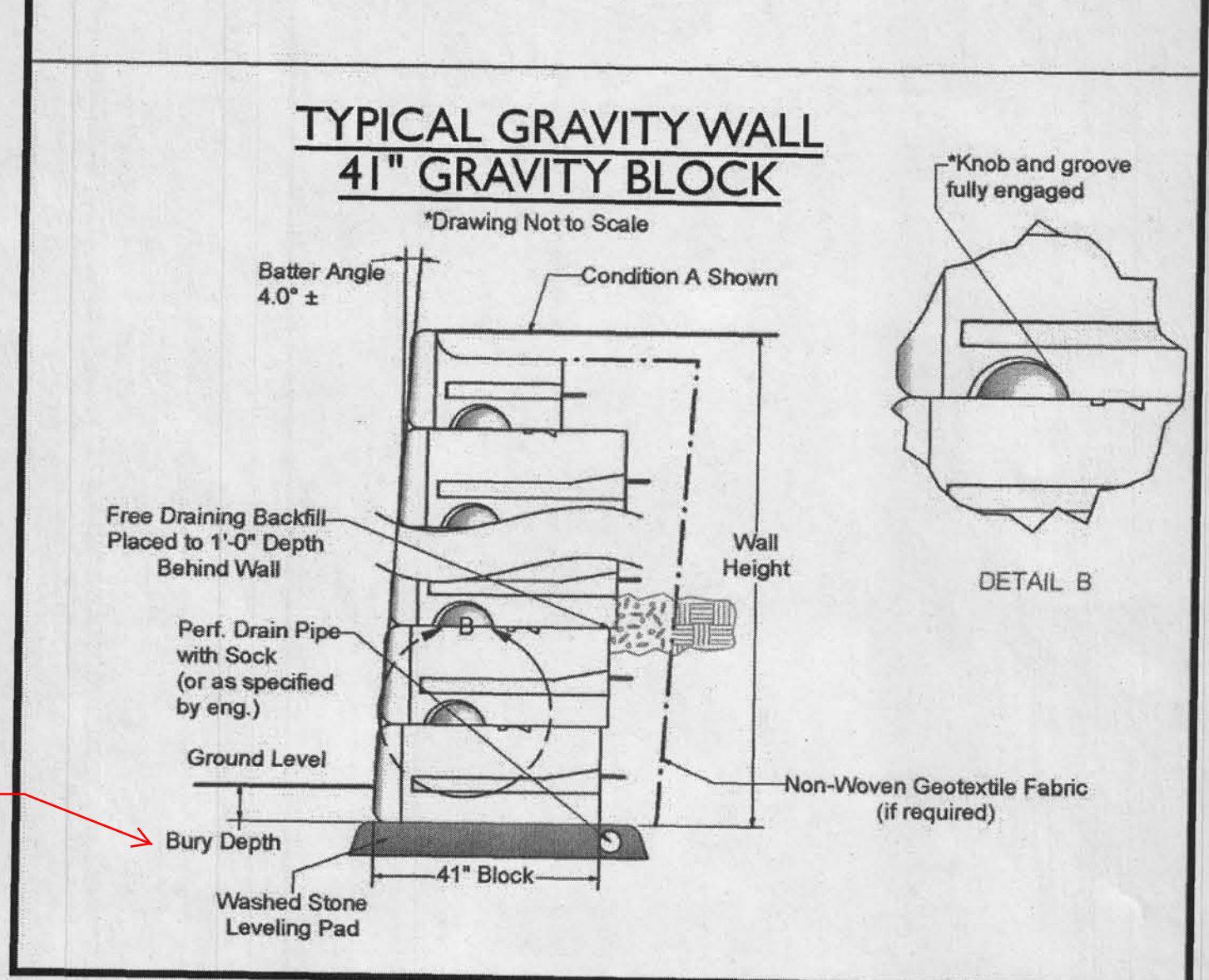
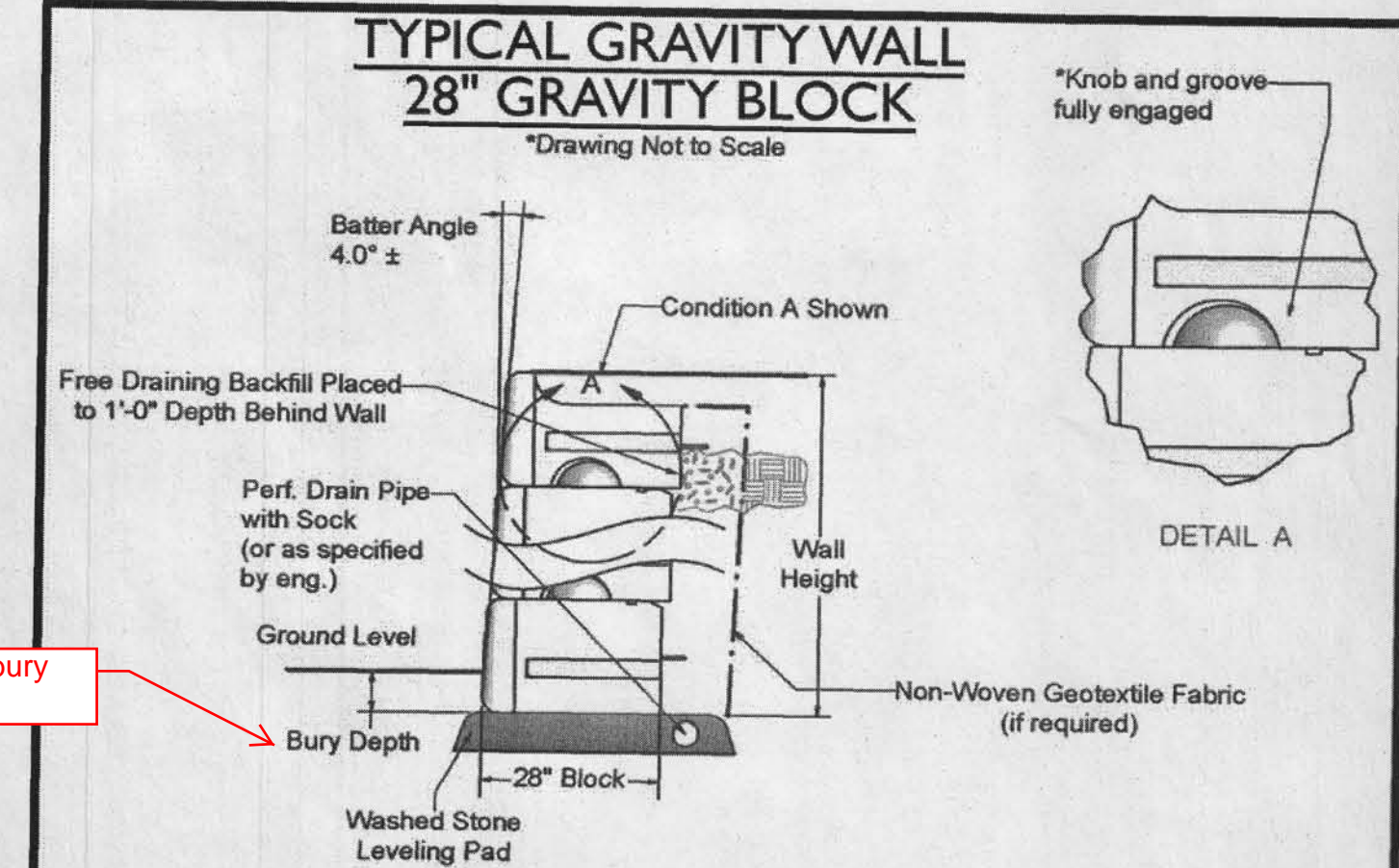
5 Typical Inlet Box
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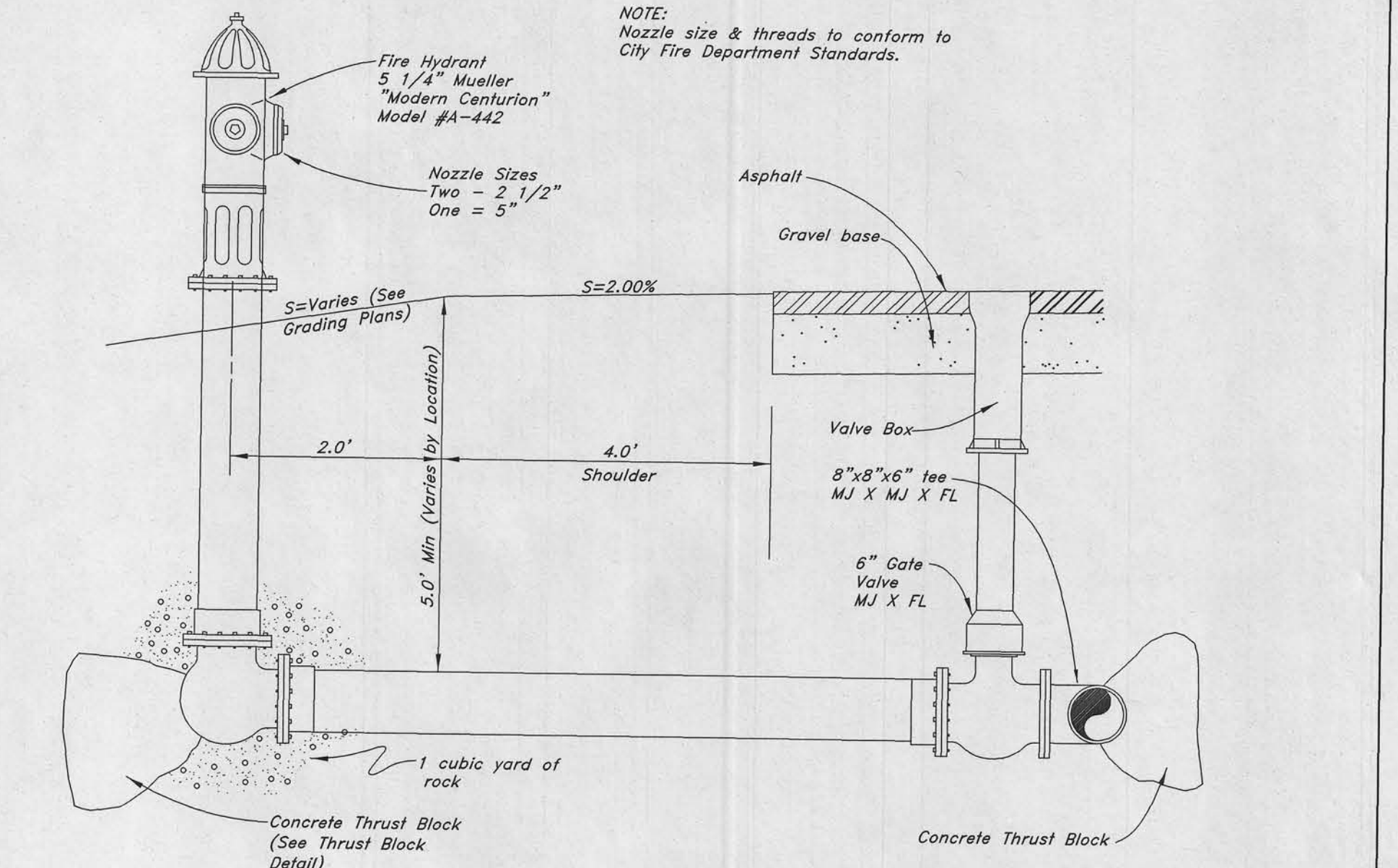
6 Typical Gate Valve
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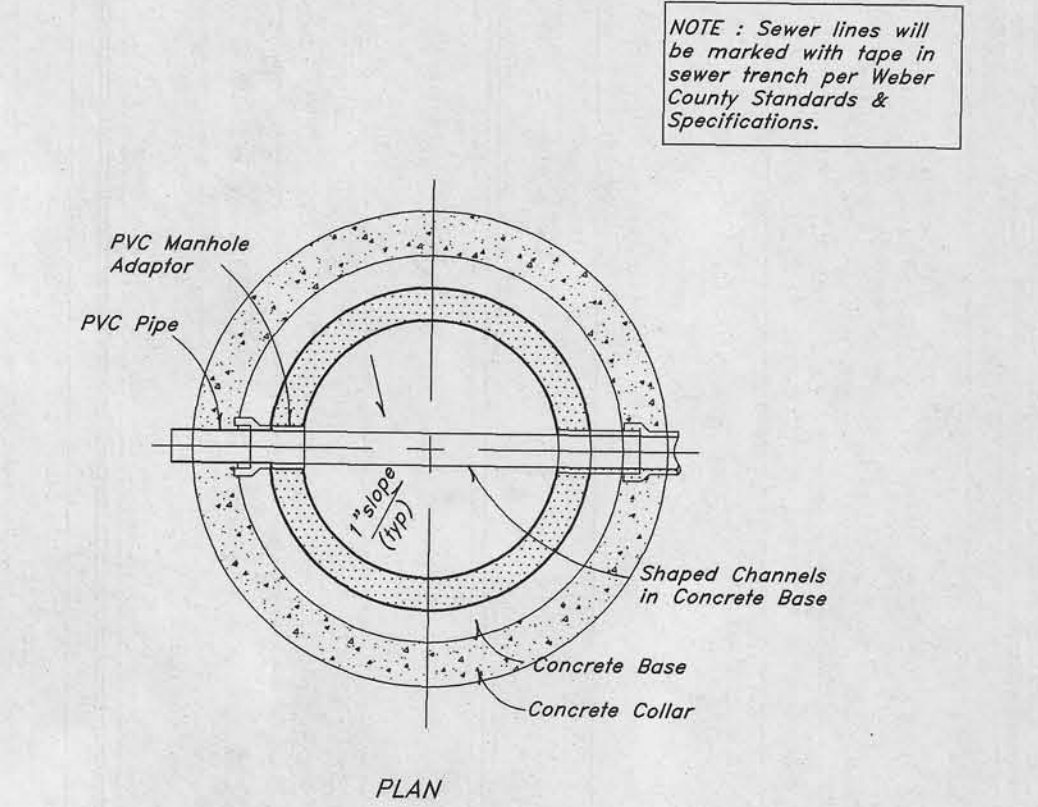
9 Typical 5.0' Manhole Detail
Not to Scale



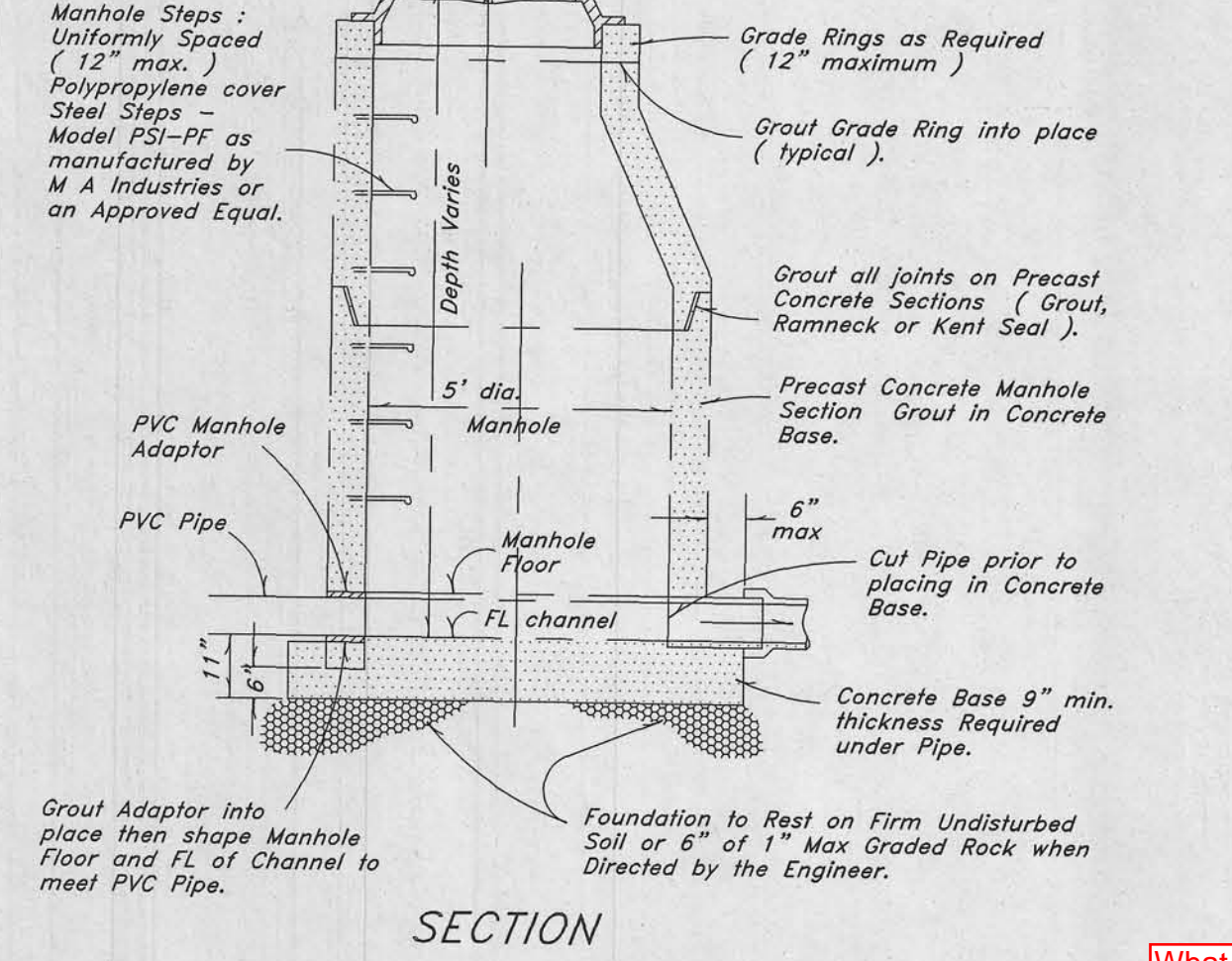
11 Gravity Block Retaining Wall Detail
Not to Scale



7 Typical Fire Hydrant & Valve Connection
Not to Scale



8 Typical 4.0' Manhole Detail
Not to Scale



10 Typical Pavement Section
Not to Scale

Details

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	GREAT BASIN ENGINEERING NORTH <small>CONSULTING ENGINEERS AND SURVEYORS</small> 5746 South 1475 East - Suite 200 Ogden, Utah 84403 P.O. Box 15004B, Ogden, Utah 84415 <small>Ogden (801)384-4515 Salt Lake City (801)521-0222 Fax (801)382-7544</small>	SCALE : NTS DRAWN : RB 11N224	DATE : 26 Jun, 2013 REVISIONS :	DRWG. NO. <div style="font-size: 2em; font-weight: bold;">5</div> Of 5
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