



# CONSTRUCTION PLANS FOR: LOS ALAMOS NATIONAL LABORATORY GRADE CONTROL STRUCTURES DP CANYON AND PUEBLO CANYON LOS ALAMOS, NEW MEXICO

## INDEX OF DRAWINGS

C-000 COVER SHEET  
C-001 GENERAL NOTES

**PUEBLO CANYON**  
C-101 EXISTING CONDITIONS  
C-102 OVERALL SITE PLAN WITH AERIAL  
C-103 ENLARGED SITE PLAN

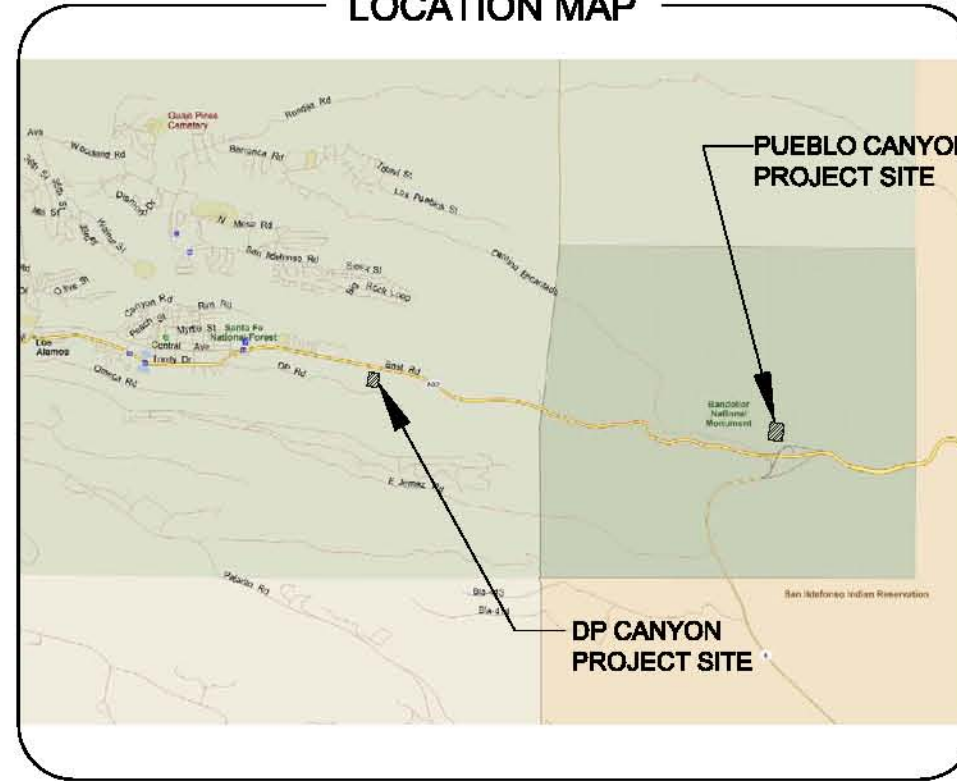
C-200 CROSS SECTIONS  
C-201 CROSS SECTIONS  
C-202 CROSS SECTIONS

**DP CANYON**  
C-301 EXISTING CONDITIONS  
C-302 OVERALL SITE PLAN WITH AERIAL  
C-303 ENLARGED SITE PLAN

C-400 CROSS SECTIONS

C-500 GENERAL DETAILS  
C-501 S.W.P.P.P. DETAILS  
C-502 S.W.P.P.P. NARRATIVE

## LOCATION MAP



## VICINITY MAP



PREPARED FOR:  
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P.O. BOX 1663  
LOS ALAMOS, NM 87545

PREPARED BY:  
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08/28/2009	ALL	JVC
DATE:	SHEETS	BT:
REVISIONS		
LOS ALAMOS NATIONAL LABORATORY GRADE CONTROL STRUCTURES		
JOB NO. 100005632		
DATE: 08/28/2009	SHT. 1 OF 16	

**GENERAL CONSTRUCTION NOTES**

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN DATUM (1983).
2. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CHECK PLANS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICT BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
4. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION.
5. ANY WELLS DISCOVERED DURING EXCAVATION, EARTHMOVING OR CONSTRUCTION MUST BE REPORTED TO THE APPROPRIATE GOVERNMENTAL AGENCY OFFICE WITHIN 24 HOURS OF DISCOVERY. ANY WELLS DISCOVERED ON THE SITE THAT HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION.
7. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO SHALL BE OF LATEST REVISIONS AND/OR LATEST EDITION.
8. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
9. CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS PRIOR TO ORDERING MATERIALS. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
10. AT LEAST 3 WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE OWNER AND APPROPRIATE AGENCIES. NOTIFICATION SHALL INCLUDE THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE OWNER OR WITHOUT AGENCY INSPECTOR PRESENT MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
11. ALL DISTURBED AREAS WITHIN PUBLIC RIGHT-OF-WAY ARE TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT OF ALL PROPERTY, ABOVE AND BELOW GROUND, AFFECTED BY THIS WORK. ALL PROPERTY SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS BEFORE CONSTRUCTION COMMENCED UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION.
13. ALL DISTURBED AREAS ASSOCIATED WITH CONSTRUCTION, WHICH ARE NOT TO BE SODDED, ARE TO BE SEEDED AND MULCHED TO THE LOCAL GOVERNING BODY'S STANDARDS AND MAINTAINED UNTIL A SATISFACTORY STAND OF GRASS ACCEPTABLE TO THE OWNER HAS BEEN OBTAINED. ANY WASHOUTS, REGRADING, RESEEDING, GRASSING, AND OTHER EROSION WORK REQUIRED, WILL BE PERFORMED BY THE CONTRACTOR/SUBCONTRACTOR UNTIL THE SYSTEM IS ACCEPTED FOR MAINTENANCE BY THE OWNER.
15. AS-BUILT DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON A SET OF THE APPROVED PLANS CONCURRENTLY WITH CONSTRUCTION PROGRESS. WITHIN TWO (2) WEEKS FOLLOWING FINAL INSPECTION THE CONTRACTOR SHALL SUBMIT ONE (1) SET OF AS-BUILT DRAWINGS TO THE ENGINEER. THE FINAL RECORD DRAWINGS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
  - A. DRAWINGS TO BE THREE-MIL BLACK LINE MYLAR.
  - B. DRAWINGS TO BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.
  - C. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND WORK.
  - D. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE ORDER.
  - E. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON ORIGINAL CONTRACTOR DRAWINGS BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATION SHALL BE CLEARLY SHOWN.
  - F. LOCATIONS OF ALL FEATURES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO (2) AND PREFERABLY THREE (3) PERMANENT POINTS.
  - G. DRAWINGS TO BE SIGNED AND SEALED BY A LICENSED SURVEYOR.
16. ALL CONCRETE STRUCTURES SHALL BE MADE OF 3000 PSI CONCRETE PER DOT STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS.

**SITE CLEARING PREPARATION NOTES**

1. THE CONTRACTOR IS TO PREPARE THE SITE PRIOR TO BEGINNING INFRASTRUCTURE CONSTRUCTION IN ACCORDANCE WITH SOILS TESTING REPORT. COPIES OF THE SOILS REPORT ARE AVAILABLE THROUGH THE OWNER OR THE SOILS TESTING COMPANY.
2. CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
3. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING SHALL BE STOCKPILED AT A SITE DESIGNATED BY THE OWNER TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER.
4. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
5. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO REMOVING ANY EXISTING STRUCTURES.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE.
7. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR/SUBCONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. IT SHALL BE THE CONTRACTOR'S/SUBCONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR/SUBCONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFACE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR/SUBCONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR/SUBCONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
8. ALTHOUGH NOT ANTICIPATED, THE LOCATION OF ANY EXISTING UNDERGROUND UTILITY LINES, WELLS OR OTHER BURIED PIPING OR STRUCTURES ASSOCIATED WITH PAST SITE USE WITHIN THE CONSTRUCTION AREA SHOULD BE ESTABLISHED PRIOR TO CONSTRUCTION. PROVISIONS SHOULD THEN BE MADE TO RELOCATE ANY INTERFERING UTILITY LINES WITHIN THE CONSTRUCTION AREA TO APPROPRIATE LOCATIONS. IN THIS REGARD, IT SHOULD BE NOTED THAT IF ABANDONED UNDERGROUND PIPES ARE NOT PROPERLY REMOVED OR PLUGGED, THEY MAY SERVE AS CONDUITS FOR SUBSURFACE EROSION, WHICH SUBSEQUENTLY MAY RESULT IN EXCESSIVE SETTLEMENTS.
9. SITE CLEARING, GRUBBING AND DEMOLITION SHALL INCLUDE THE REMOVAL OF TREES, GROUND BRUSH, ORGANIC SOILS, ROOT MATS, EXISTING STRUCTURES, PAVEMENT, UTILITIES OR OTHER DELETERIOUS MATERIALS ENCOUNTERED. CLEARING AND GRUBBING SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION AT THE SITE. AS A MINIMUM, THE CLEARING OPERATIONS SHALL EXTEND AT LEAST 5 FEET BEYOND THE BUILDING PERIMETERS. ANY EXCAVATIONS OR CAVITIES FORMED BY THE REMOVAL OF ORGANIC MATERIAL, GROUND BRUSH OR STUMPS SHOULD BE FILLED WITH CLEAN, COMPACTED STRUCTURAL FILL.

**GRADING NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING SHEETING OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED.
2. CONTRACTOR IS TO PROVIDE EROSION CONTROL BARRIERS (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS, WATERWAYS, AND EXISTING WETLANDS PER THE CONSTRUCTION DRAWINGS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH, OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE OWNER'S REPRESENTATIVE OR GOVERNMENTAL AGENCY THAT EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR GOVERNING OFFICIALS. SEE SWPPP NARRATIVE FOR ADDITIONAL INFORMATION.
3. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION, OR OTHER ACCEPTABLE METHODS.
4. THERE IS TO BE NO DISCHARGE (I.E. PUMPING, SHEET FLOW, SWALE, DITCH, ETC.) INTO EXISTING DITCHES OR CANALS WITHOUT THE USE OF SETTLING PONDS. IF THE CONTRACTOR DESIRES TO DISCHARGE INTO THE EXISTING DITCHES OR CANALS A SETTLING POND PLAN PREPARED BY THE CONTRACTOR MUST BE SUBMITTED TO AND APPROVED BY THE OWNER'S REPRESENTATIVE AND APPROPRIATE GOVERNMENTAL AGENCY PRIOR TO CONSTRUCTION.
5. ANY VEGETATION FROM CLEARING/GRUBBING SHALL BE DISPOSED OF OFF-SITE.

User Name: 22190 Drawing Name: \\server1\p\m\100005832 - Los Alamos\j\m\01 - C-101 - C20 - GENERAL NOTES.dwg Aug 26, 2008 - 11:48am



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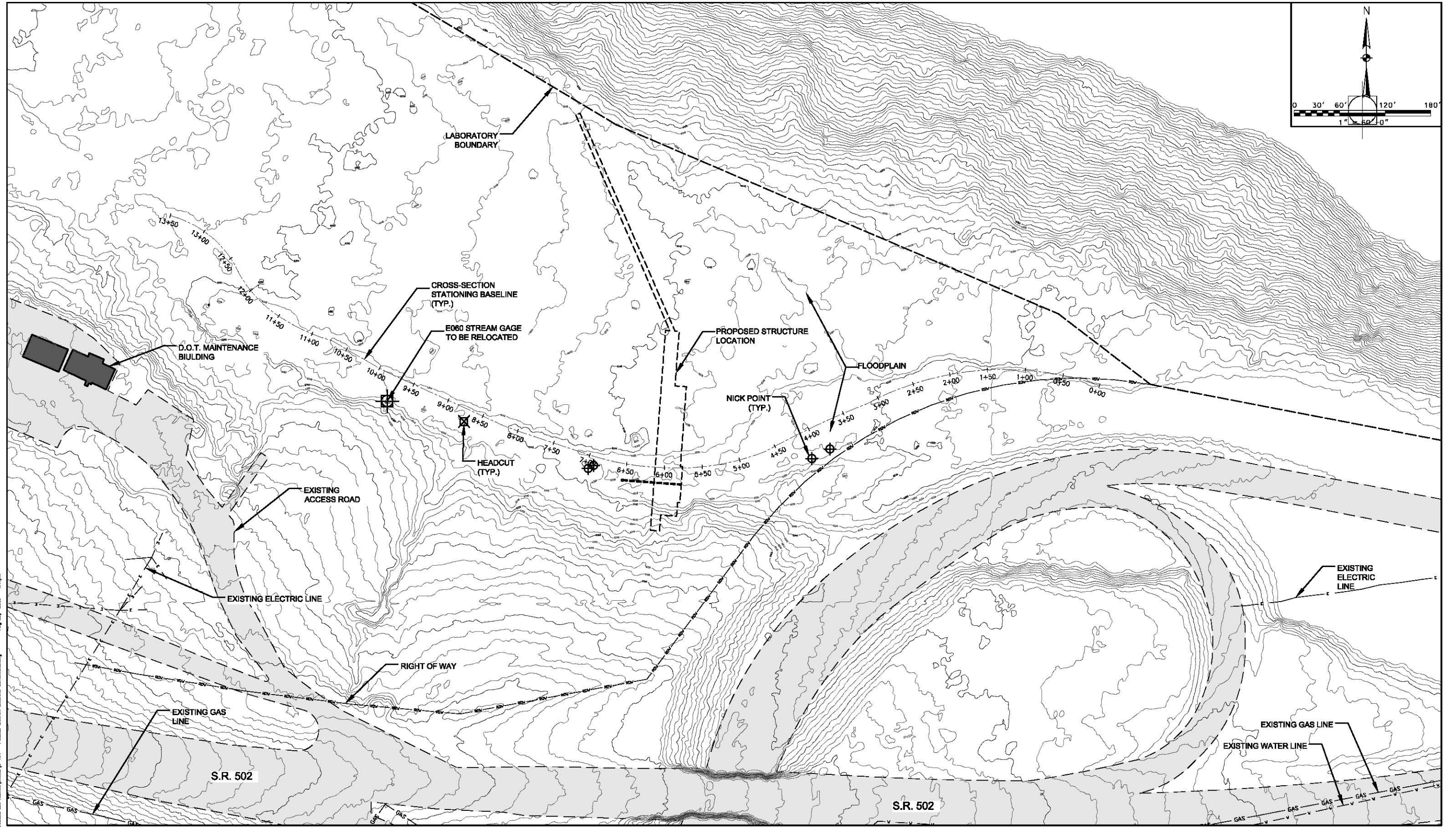
CLIENT
LOS ALAMOS NATIONAL LABORATORY LOS ALAMOS, NM

PROJECT
LOS ALAMOS NATIONAL LABORATORY GRADE CONTROL STRUCTURES

TASK
GENERAL NOTES

ORIGINAL DATE: 08/24/09	6
REVISIONS:	7
ISSUED FOR NMED	8
1. PERMITTING 08/28/2008	9
2	10
3	11
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JOB NO. 100005832
DATE 08/27/2009
DESIGNED DTW
PE RMP
CHECKED IMT
QC MS
SHEET C-001



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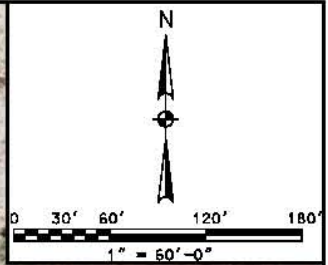
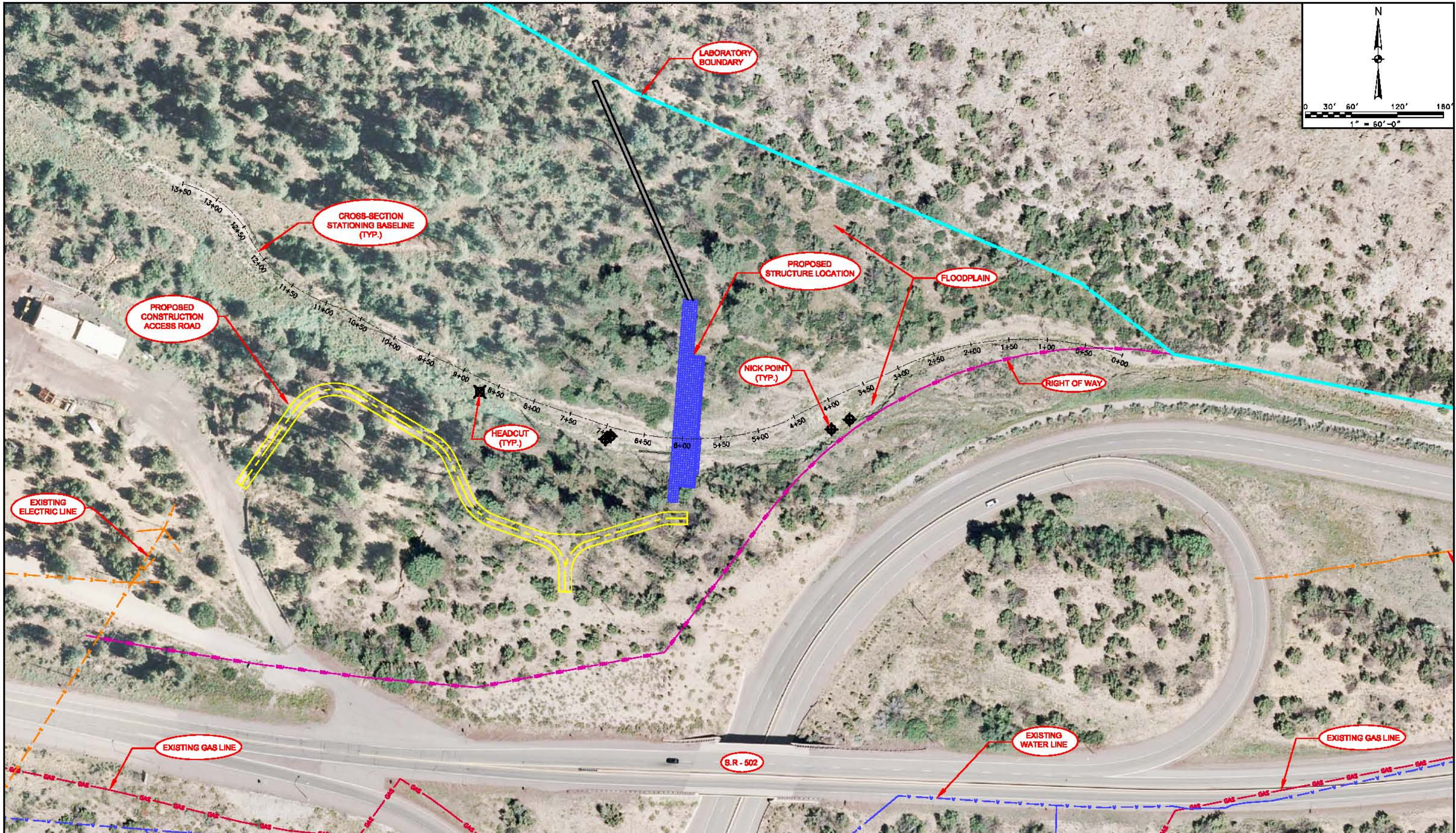
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**LOS ALAMOS NATIONAL  
 LABORATORY  
 LOS ALAMOS, NM**

PROJECT  
**LOS ALAMOS NATIONAL  
 LABORATORY  
 GRADE CONTROL STRUCTURES**

TASK  
**PUEBLO CANYON  
 EXISTING CONDITIONS**

ORIGINAL DATE:	08/24/09	6
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1 PERMITTING 08/28/2009		9
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JOB NO. 100005632  
 DATE 08/27/2009  
 DESIGNED DTW  
 PE RMP  
 CHECKED IMT  
 QC MS  
**SHEET C-101**



User Name: 23100  
 Drawing Name: \\sbsj\p\proj\100005832\100005832 - Pueblo Canyon Overall with Aerial.dwg  
 Aug 26, 2009 - 11:58am

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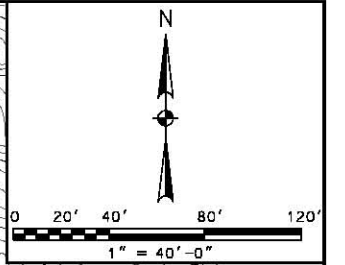
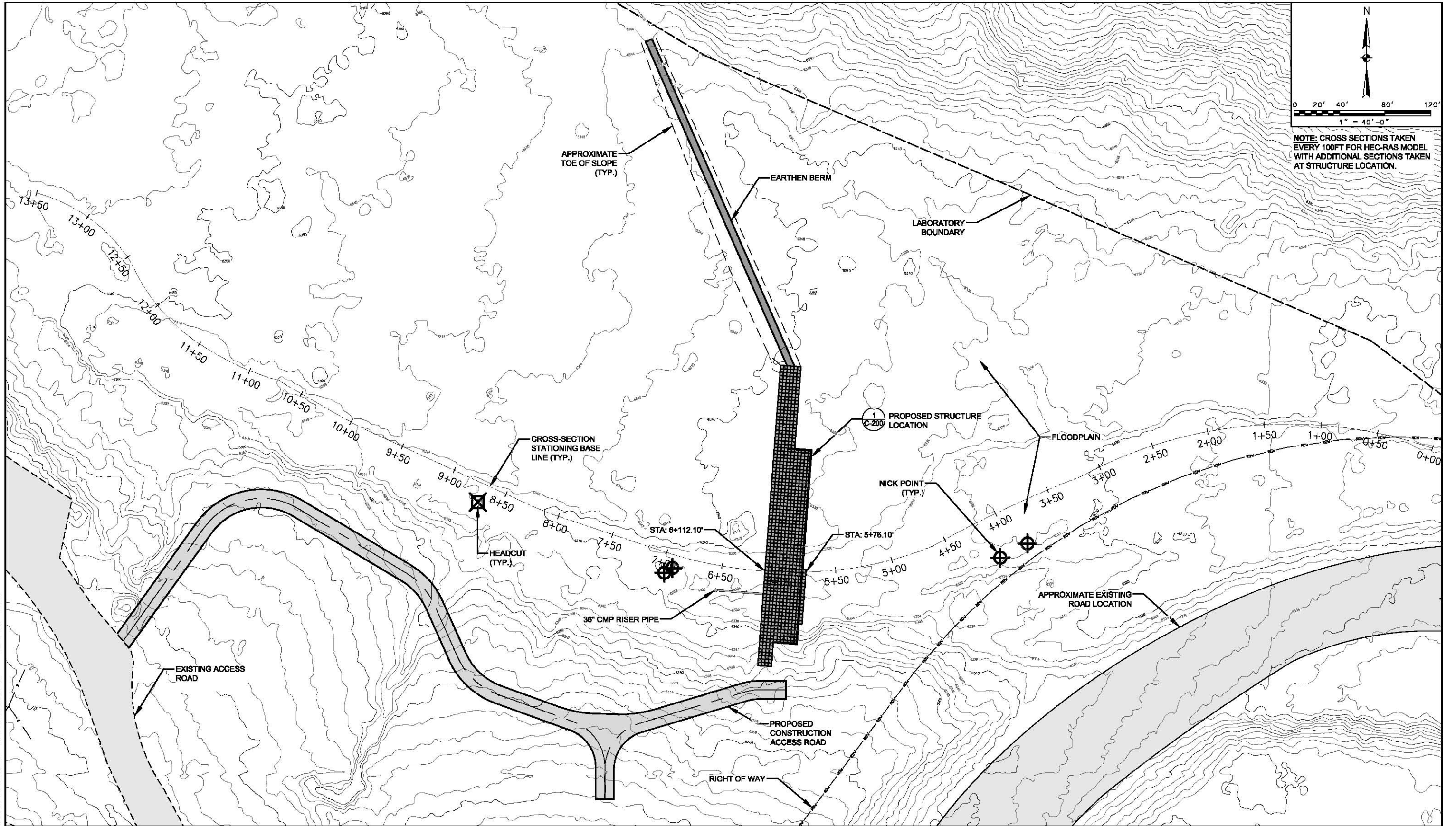
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PROJECT	LOS ALAMOS NATIONAL LABORATORY GRADE CONTROL STRUCTURES
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TASK	PUEBLO CANYON OVERALL SITE PLAN WITH AERIAL
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ORIGINAL DATE:	08/24/09	6
REVISIONS:		7
ISSUED FOR PERMITTING:	08/27/2009	8
1		9
2		10
3		11
4		12

JOB NO.	100005832
DATE	08/27/2009
DESIGNED	DTW
PE	RMP
CHECKED	IMT
QC	MS
SHEET	C-102



NOTE: CROSS SECTIONS TAKEN EVERY 100FT FOR HEC-RAS MODEL WITH ADDITIONAL SECTIONS TAKEN AT STRUCTURE LOCATION.

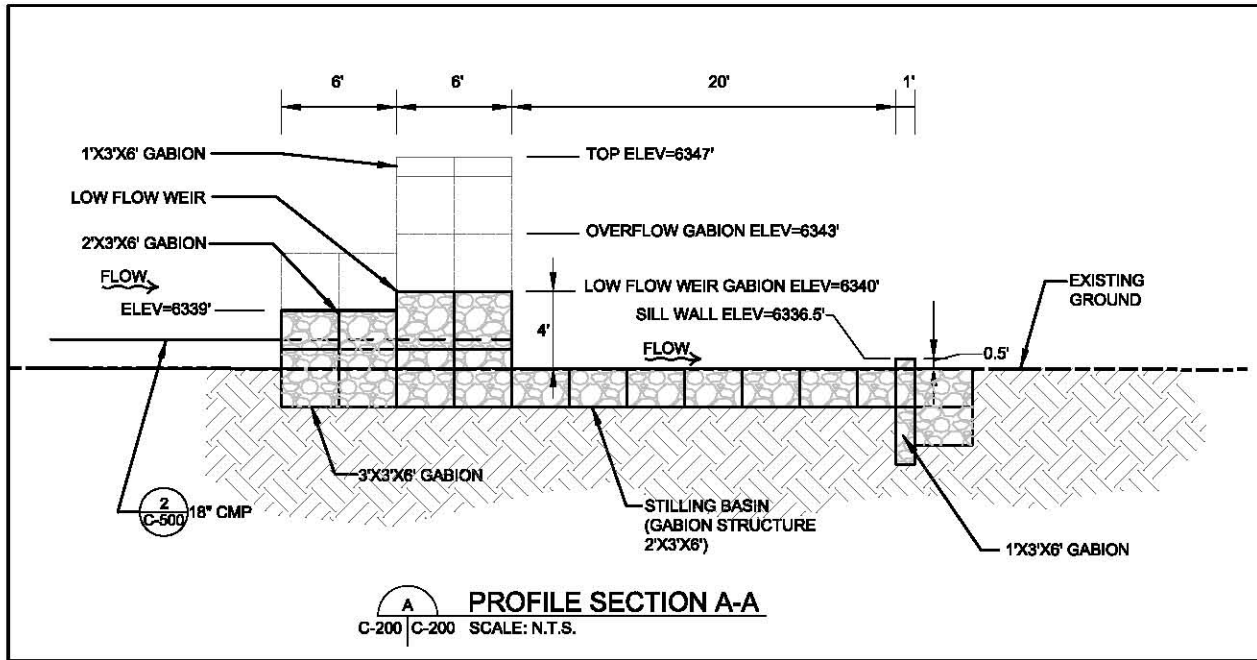
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 Aug 26, 2009 - 11:51am



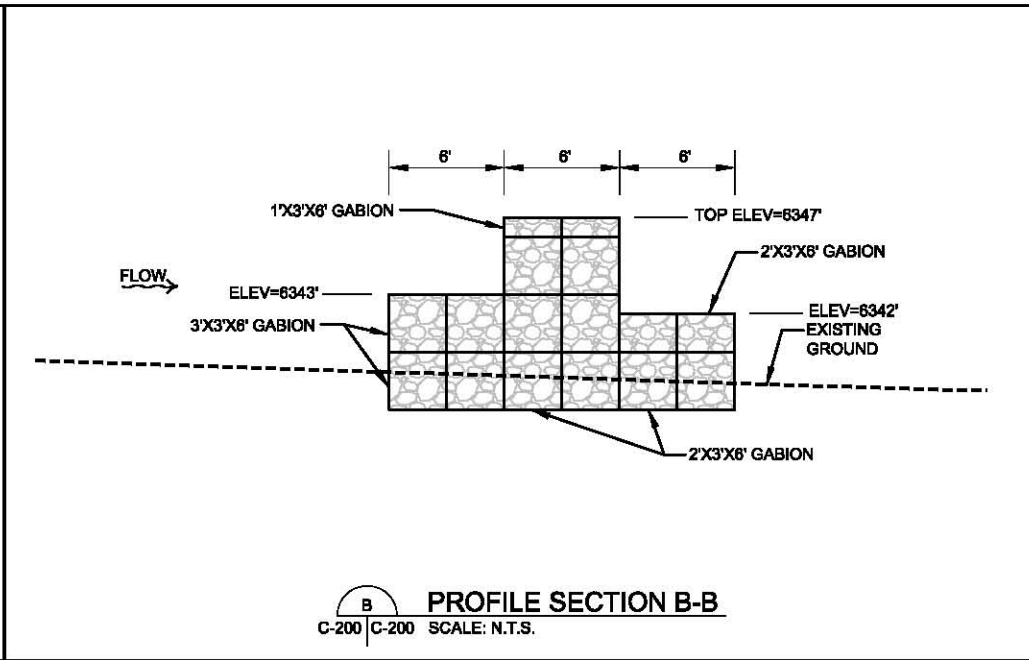
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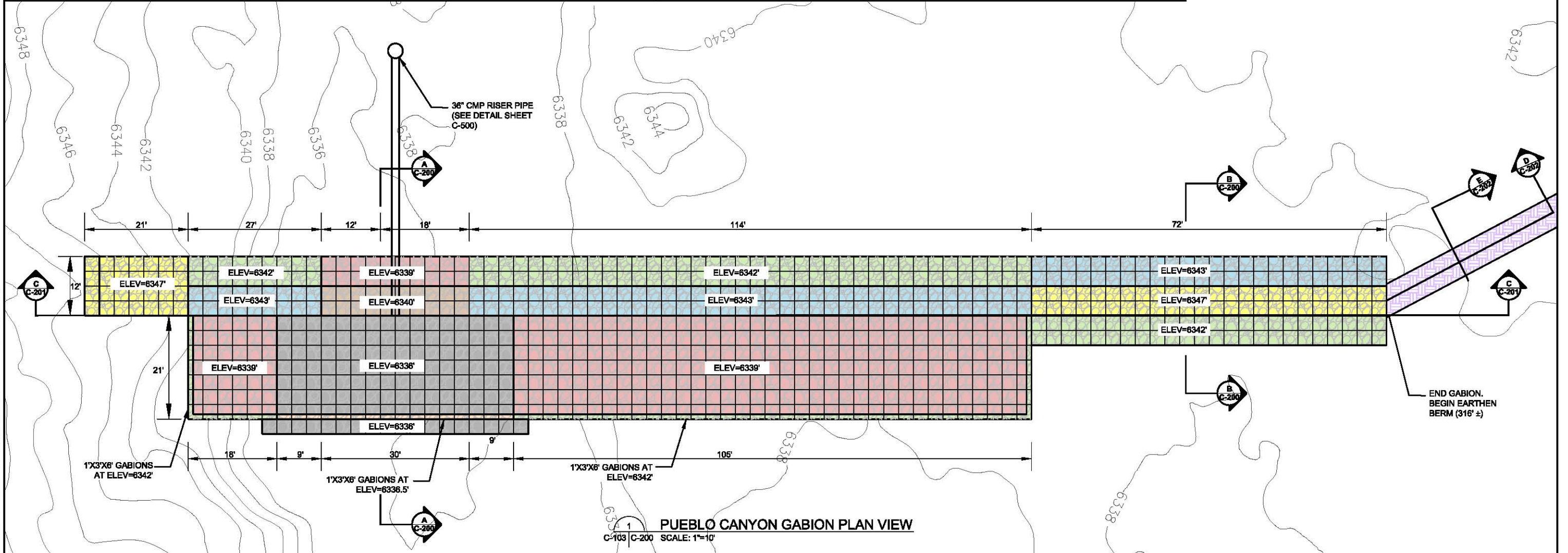
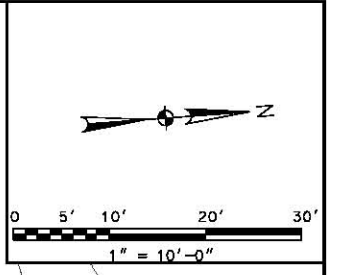
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			8. _____	9. _____	DESIGNED DTW
			9. _____	10. _____	PE RMP
			10. _____	11. _____	CHECKED IMT
			11. _____	12. _____	QC MS
			12. _____		SHEET C-103



**PROFILE SECTION A-A**  
C-200 | C-200 SCALE: N.T.S.



**PROFILE SECTION B-B**  
C-200 | C-200 SCALE: N.T.S.



**PUEBLO CANYON GABION PLAN VIEW**  
C-103 | C-200 SCALE: 1"=10'

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 Aug 26, 2009 - 11:52am  
 PUEBLO CANYON CROSS SECTIONS.dwg

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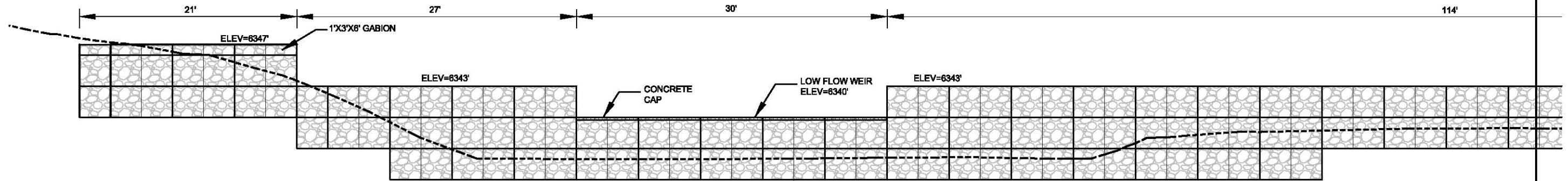
CLIENT  
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 LABORATORY  
 LOS ALAMOS, NM**

PROJECT  
**LOS ALAMOS NATIONAL  
 LABORATORY  
 GRADE CONTROL STRUCTURES**

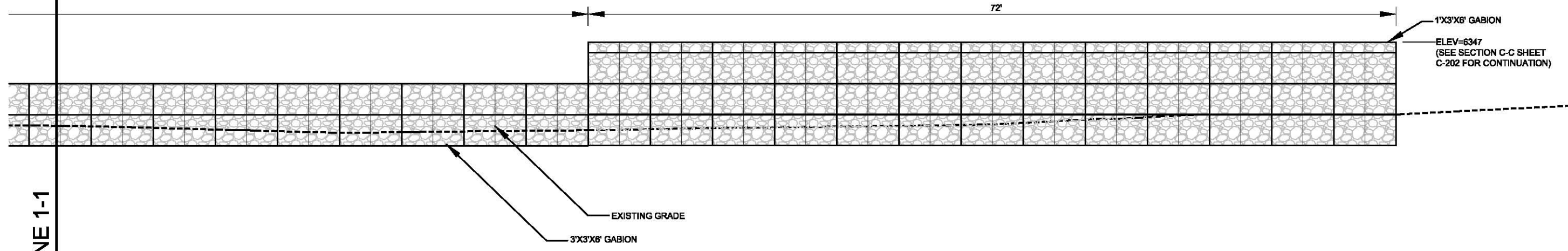
TASK  
**PUEBLO CANYON  
 CROSS SECTIONS**

ORIGINAL DATE: 08/24/09	6
REVISIONS:	7
1. ISSUED FOR NMED PERMITTING 08/28/2009	8
2.	9
3.	10
4.	11
5.	12

JOB NO. 100005632  
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 QC MS  
**SHEET C-200**



MATCH LINE 1-1



MATCH LINE 1-1

**PUEBLO CANYON GABION CROSS SECTION B-B**  
 C-200 | C-201 SCALE: 1"=5'

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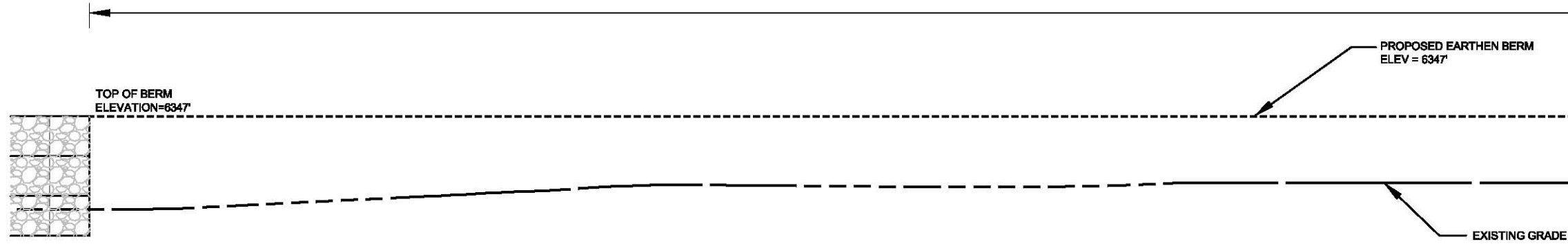
CLIENT  
**LOS ALAMOS NATIONAL  
 LABORATORY**  
 LOS ALAMOS, NM

PROJECT  
**LOS ALAMOS NATIONAL  
 LABORATORY**  
 GRADE CONTROL STRUCTURES

TASK  
**PUEBLO CANYON  
 CROSS SECTIONS**

ORIGINAL DATE: 08/24/09	6
REVISIONS:	7
1. PERMITTING 08/28/2008	8
2.	9
3.	10
4.	11
5.	12

JOB NO. 100005632  
 DATE: 08/27/2009  
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 CHECKED: IMT  
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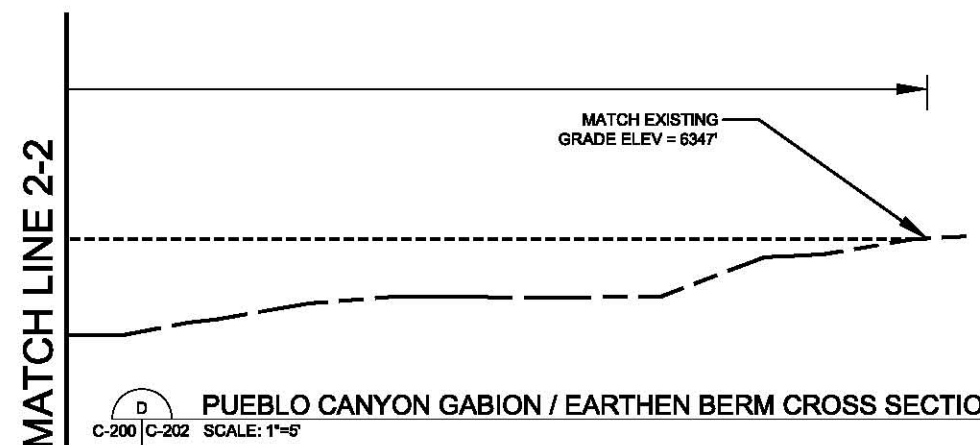


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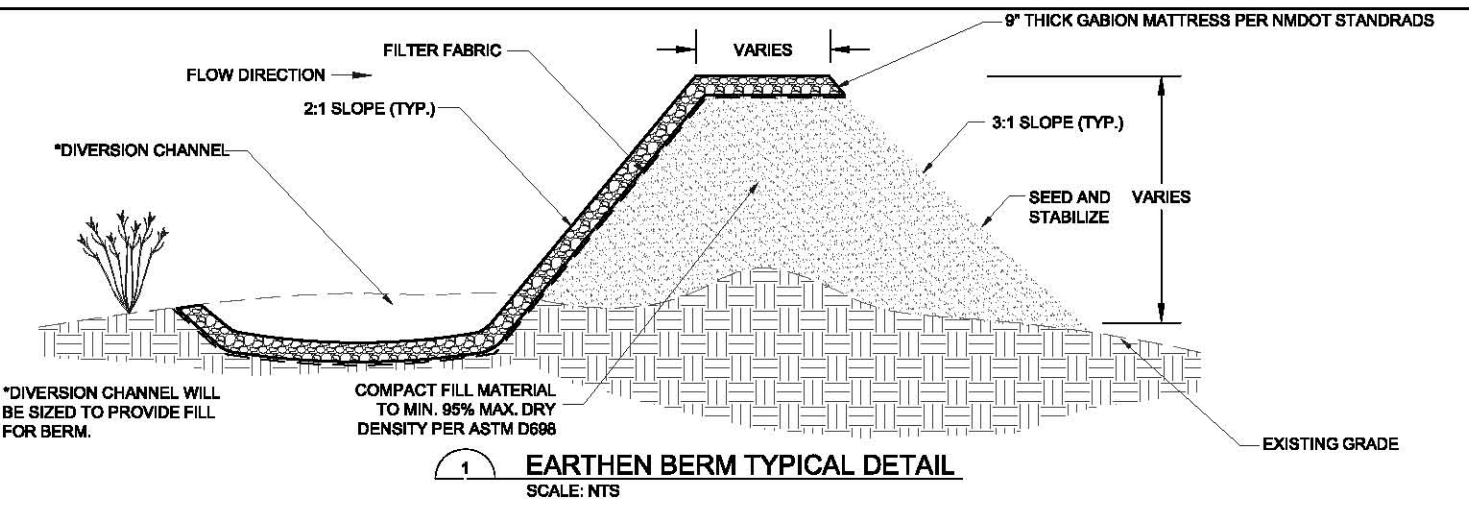
316' (±)

MATCH LINE 1-1

MATCH LINE 2-2



MATCH LINE 2-2



1 EARTHEN BERM TYPICAL DETAIL SCALE: NTS

D PUEBLO CANYON GABION / EARTHEN BERM CROSS SECTION C-C C-200 | C-202 SCALE: 1"=5'

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Drawing Name: \\server1\comm\10005632 Lin Areas\Drawings\C-200 - PUEBLO CANYON CROSS SECTIONS.dwg  
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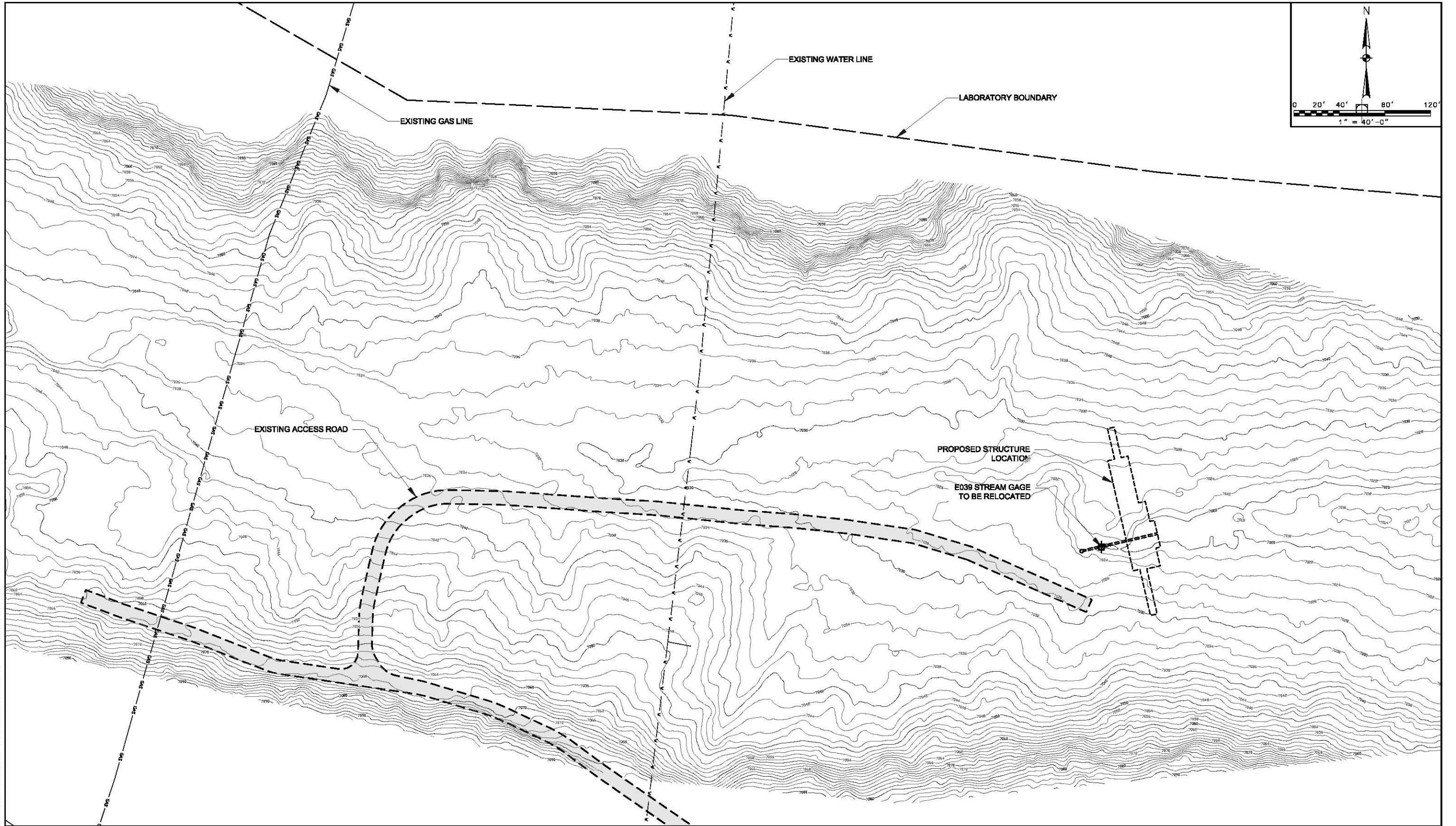
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TASK  
PUEBLO CANYON CROSS SECTIONS

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JOB NO. 100005632  
DATE: 08/27/2009  
DESIGNED: DTW  
PE: RMP  
CHECKED: IMT  
QC: MS  
SHEET C-202



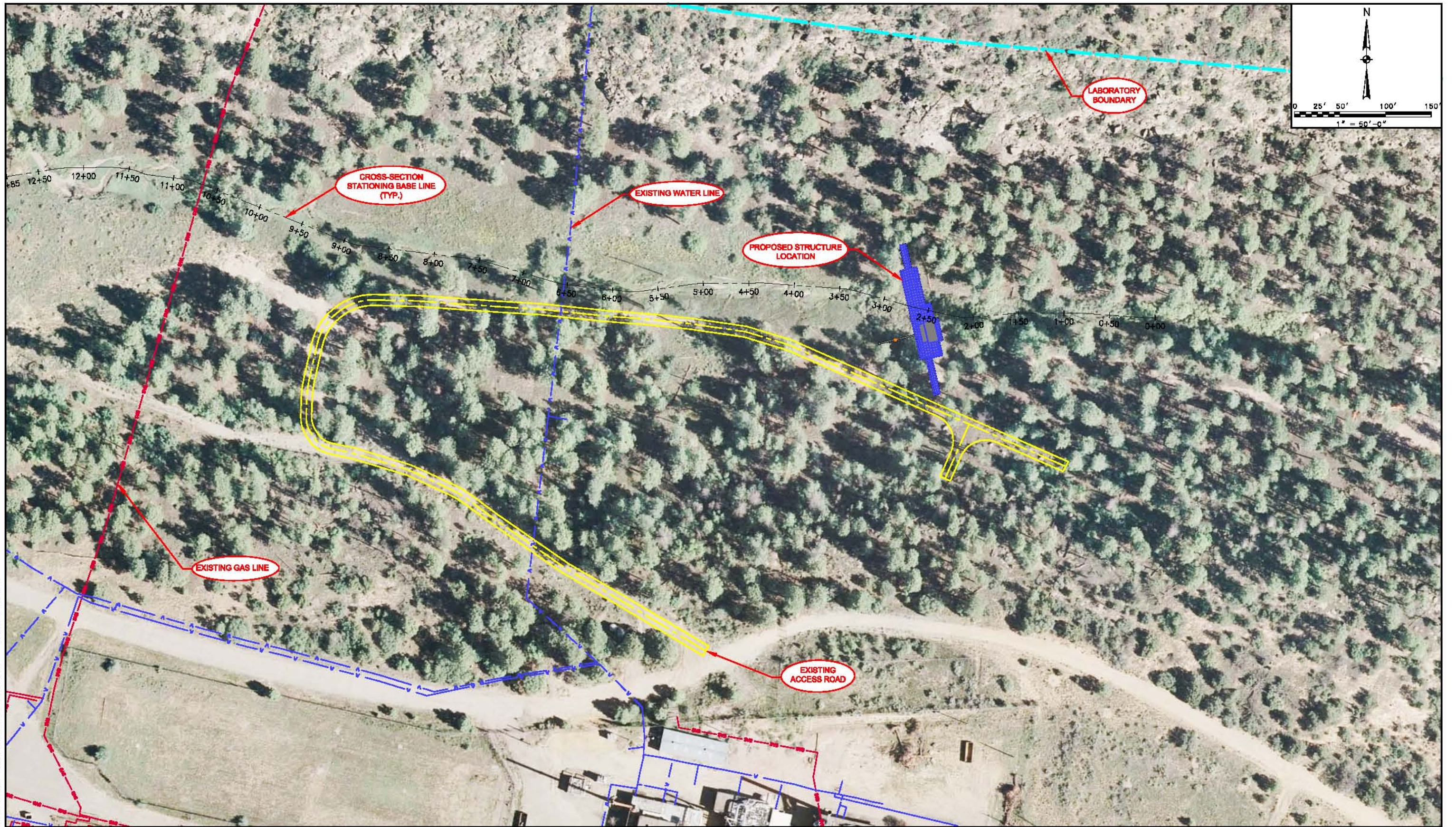
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LOS ALAMOS NATIONAL LABORATORY	LOS ALAMOS NATIONAL LABORATORY	DP CANYON	REVISIONS:	7 _____	DATE 08/27/2009
LOS ALAMOS, NM	GRADE CONTROL STRUCTURES	EXISTING CONDITIONS	ISSUED FOR NMED	8 _____	DESIGNED DTW
			1 PERMITTING 08/28/2009	9 _____	PE RMP
			2 _____	10 _____	CHECKED IMT
			3 _____	11 _____	QC MS
			4 _____	12 _____	SHEET C-301
			5 _____		



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 Aug 26, 2009 - 11:56am  
 - DP Canyon Overall with Aerial

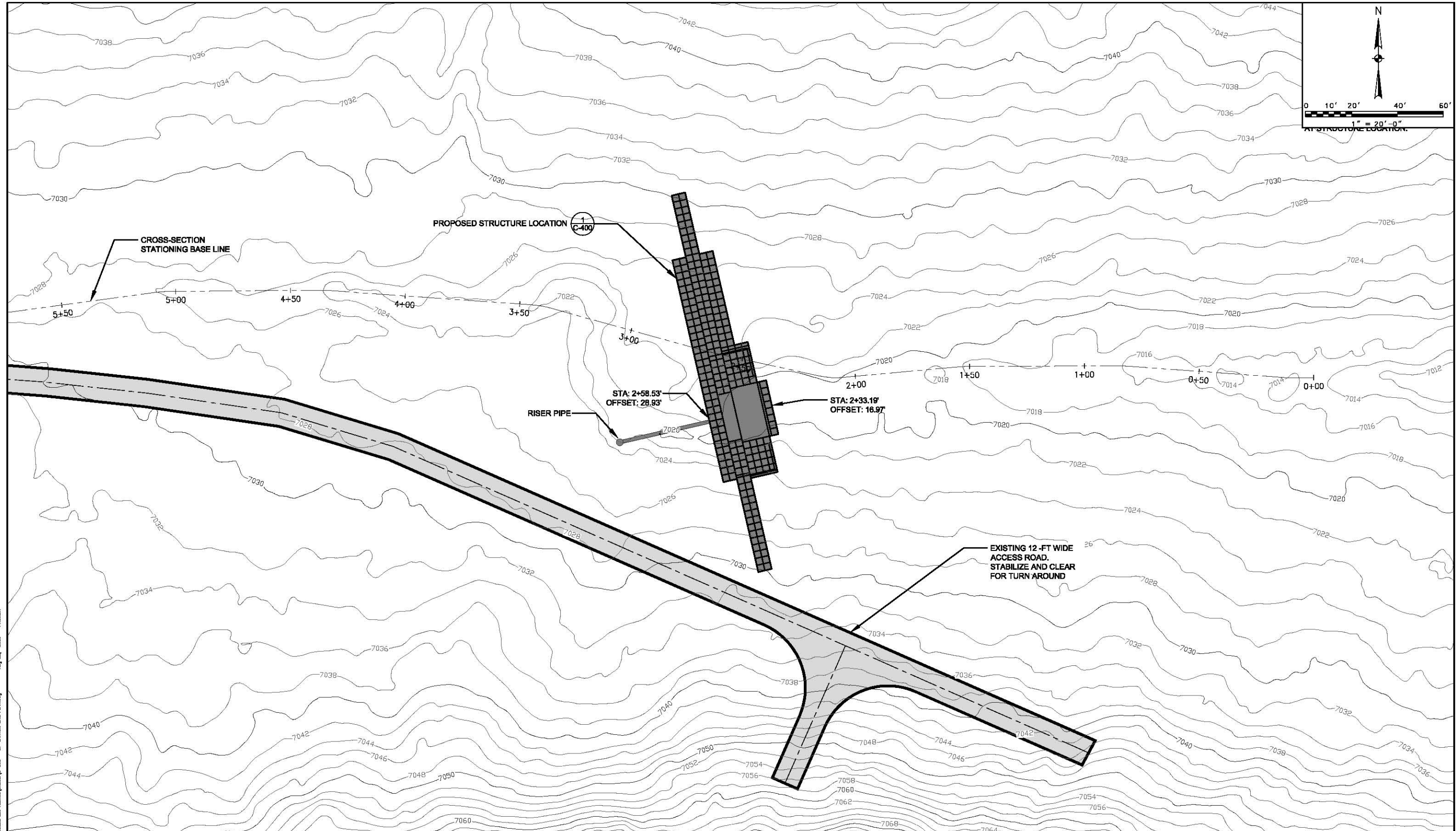


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CLIENT	PROJECT	TASK
LOS ALAMOS NATIONAL LABORATORY LOS ALAMOS, NM	LOS ALAMOS NATIONAL LABORATORY GRADE CONTROL STRUCTURES	DP CANYON OVERALL SITE PLAN WITH AERIAL

ORIGINAL DATE: 08/24/09	6	JOB NO. 100005832
REVISIONS:	7	DATE 08/27/2009
1. PERMITTED 08/28/2009	8	DESIGNED DTW
2.	9	PE. RMP
3.	10	CHECKED IMT
4.	11	QC. MS
5.	12	SHEET C-302



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 Drawing Name: \\server1\comm\10005632\10005632 - DP Canyon Site Plan.dwg  
 Aug 26, 2009 - 11:58am



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CLIENT  
**LOS ALAMOS NATIONAL  
 LABORATORY  
 LOS ALAMOS, NM**

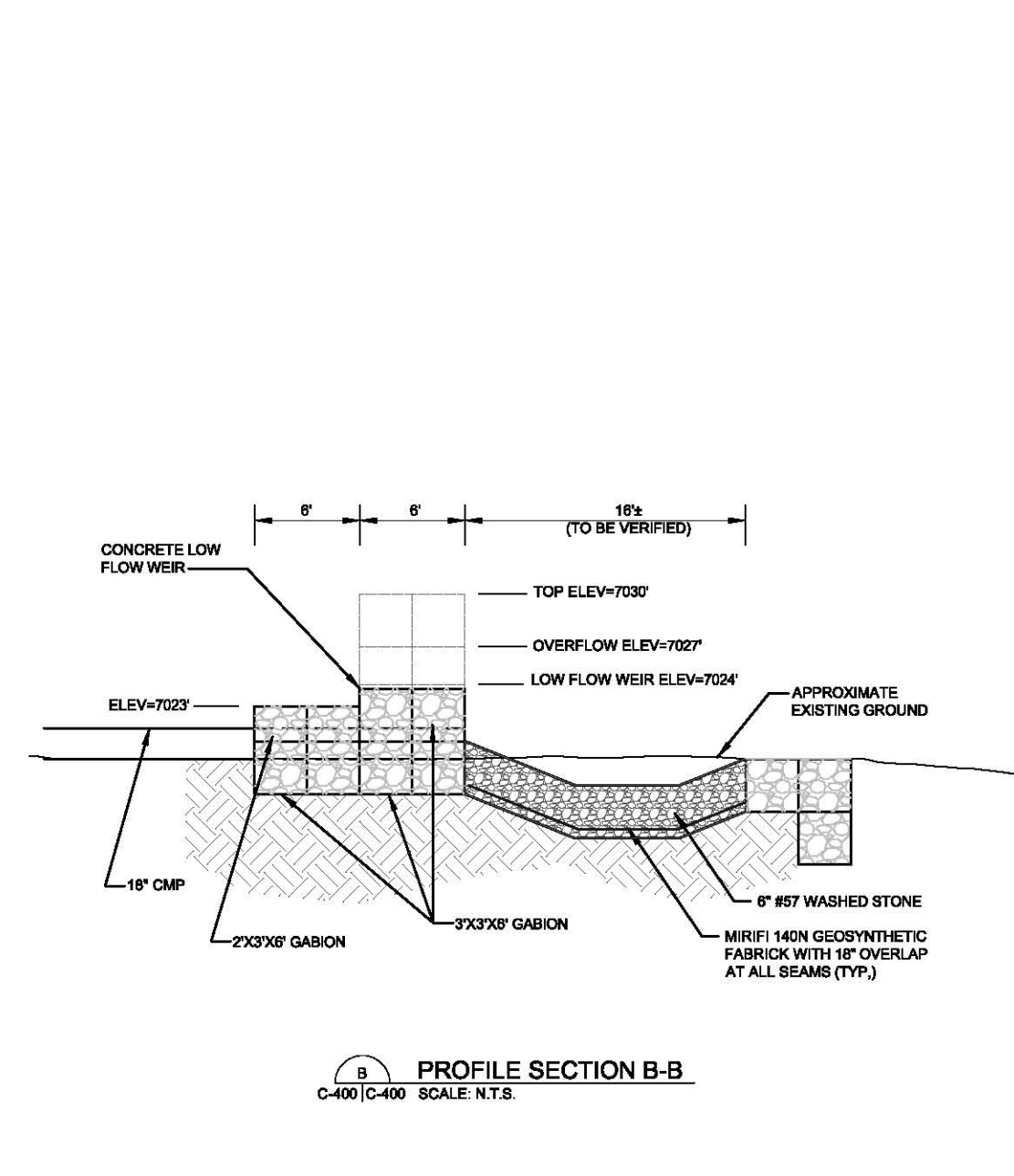
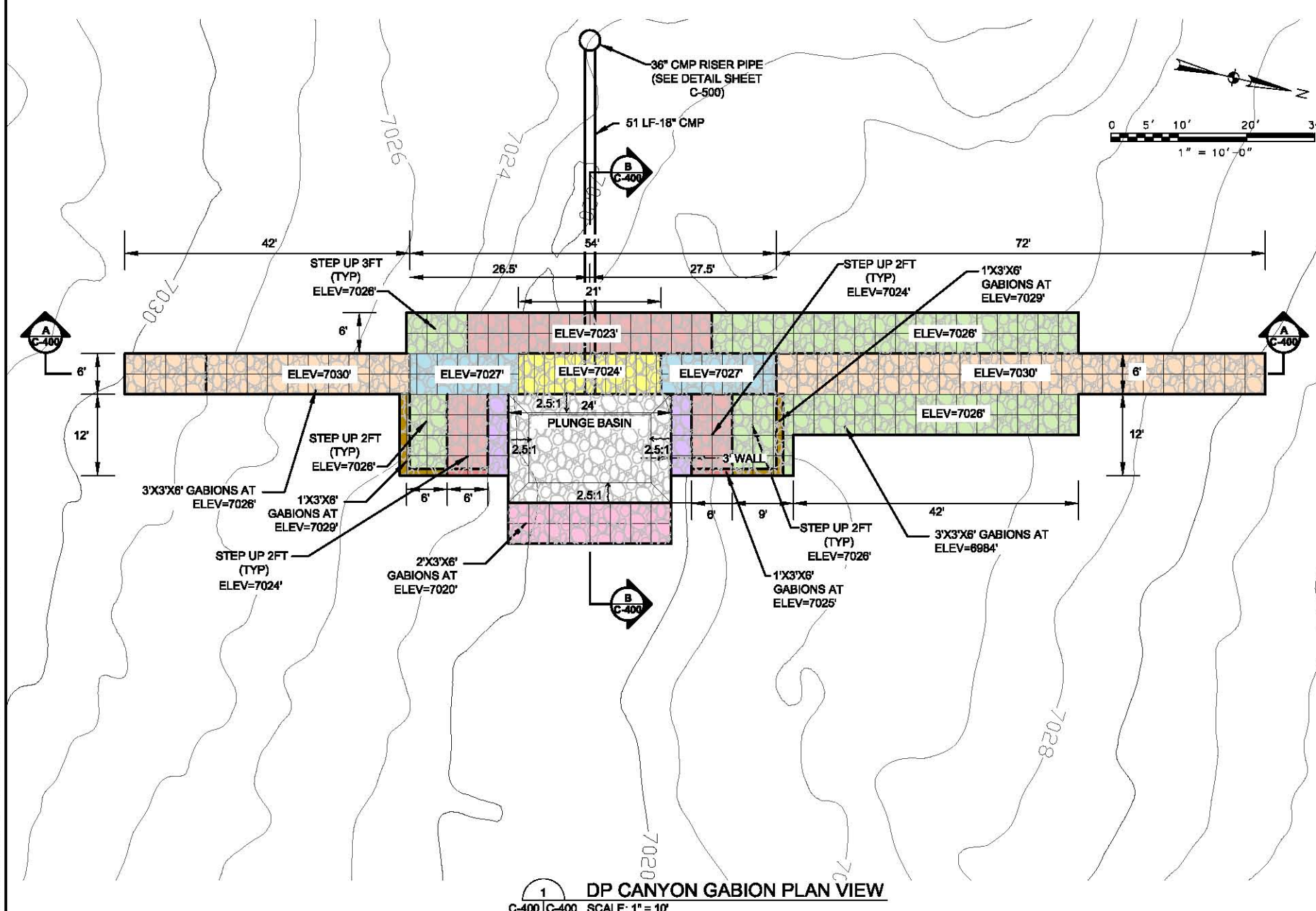
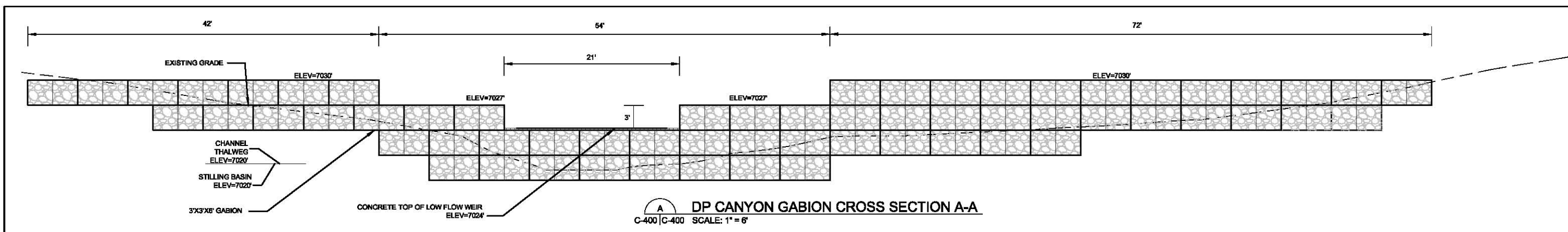
PROJECT  
**LOS ALAMOS NATIONAL  
 LABORATORY  
 GRADE CONTROL STRUCTURES**

TASK  
**DP CANYON  
 ENLARGED SITE PLAN**

ORIGINAL DATE: 08/24/09  
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JOB NO. 100005632  
 DATE 08/27/2009  
 DESIGNED DTW  
 PE RMP  
 CHECKED IMT  
 QC MS  
**SHEET C-303**



User Name: 22190  
 Drawing Name: \\server1\comm\10005632\10005632 - DP CANYON CROSS SECTIONS.dwg  
 Aug 24, 2009 - 11:56am

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**KBR**

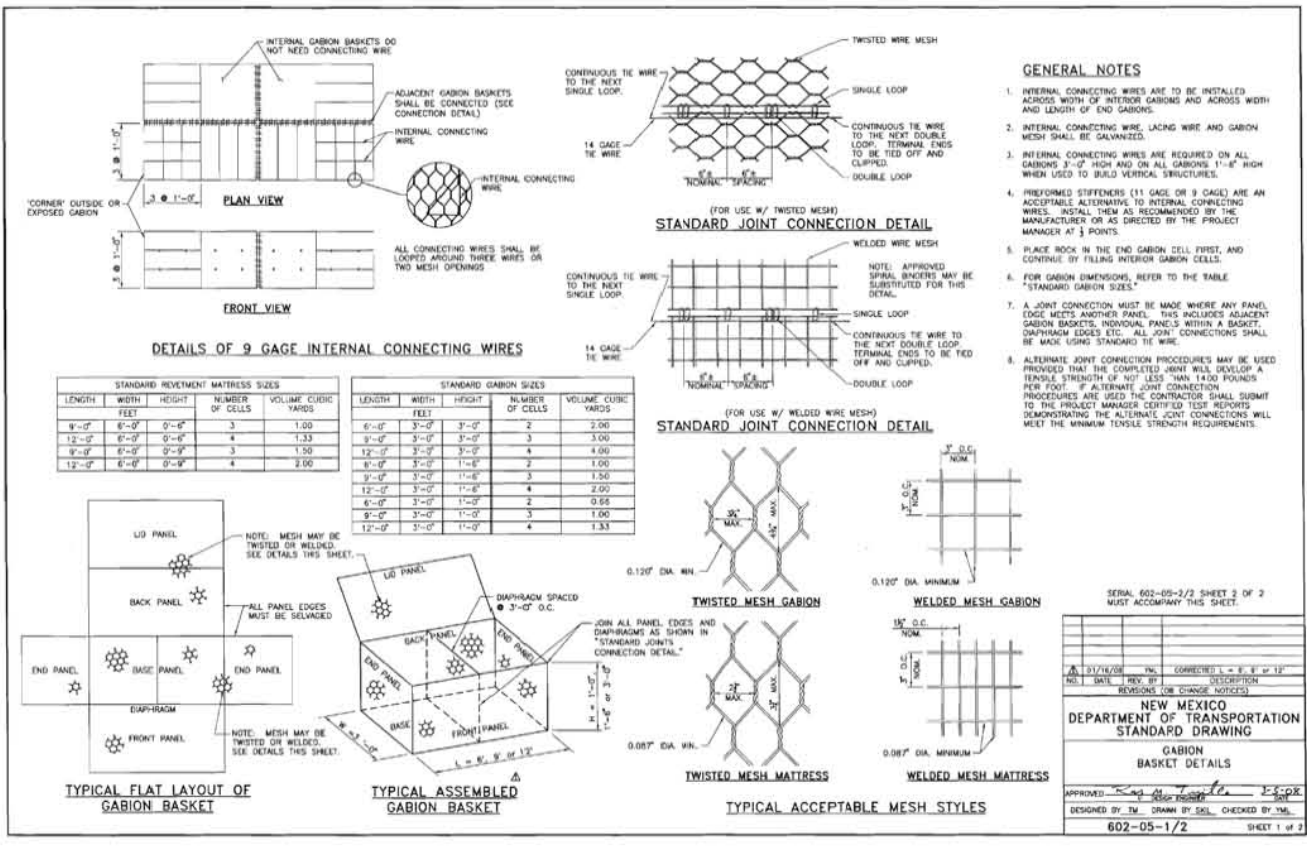
CLIENT  
 LOS ALAMOS NATIONAL  
 LABORATORY  
 LOS ALAMOS, NM

PROJECT  
 LOS ALAMOS NATIONAL  
 LABORATORY  
 GRADE CONTROL STRUCTURES

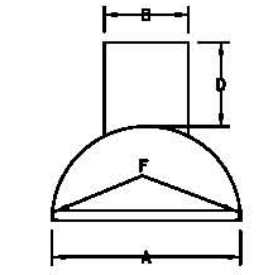
TASK  
 DP CANYON  
 CROSS SECTIONS

ORIGINAL DATE: 08/24/09	6
REVISIONS:	7
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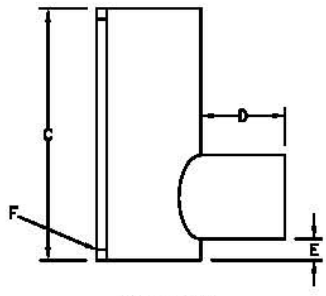
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 DATE 08/27/2009  
 DESIGNED DTW  
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 CHECKED IMT  
 QC MS  
 SHEET C-400



**1 GABION BASKET DETAIL (NMDOT)**  
 C-103 | C-500 SCALE: NTS  
 C-303



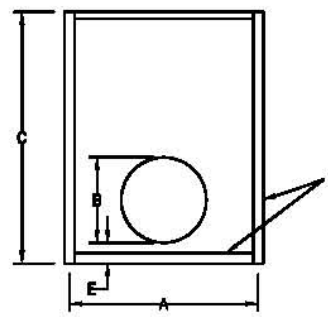
PLAN VIEW



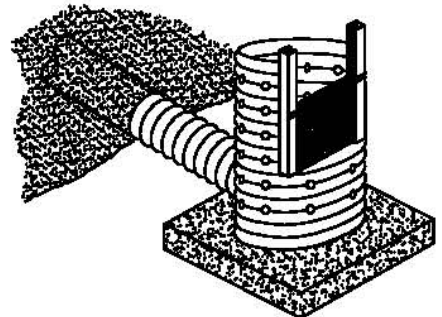
SIDE VIEW

**DIMENSIONS (PUEBLO CANYON)**

A: \_\_\_\_\_  
 B: \_\_\_\_\_  
 C: \_\_\_\_\_  
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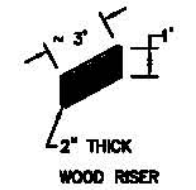


FRONT ELEVATION



**DIMENSIONS (DP CANYON)**

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 E: \_\_\_\_\_  
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**2 RISER PIPE DETAILS**  
 C-200 | C-500 SCALE: NTS  
 C-400

User Name: 22180 Drawing Name: \\pbesj\pbesj\10000503 Lin Manual\10000503-200 - 08/24/09 09:08:45 AM



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CLIENT  
**LOS ALAMOS NATIONAL LABORATORY**  
 LOS ALAMOS, NM

PROJECT  
**LOS ALAMOS NATIONAL LABORATORY**  
 GRADE CONTROL STRUCTURES

TASK  
**GENERAL DETAILS**

ORIGINAL DATE: 08/24/09	6
REVISIONS:	7
ISSUED FOR NMDOT PERMITTING 08/28/2009	8
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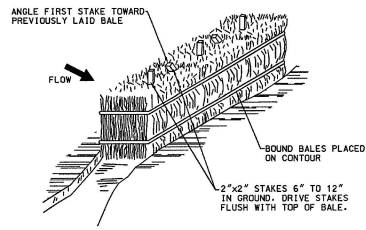
JOB NO. 100005032  
 DATE 08/27/2009  
 DESIGNED DTW  
 PE RMP  
 CHECKED INT  
 QC MS  
 SHEET C-500

TEMPORARY EROSION & SEDIMENT CONTROL MEASURES (T.E.S.C.M.)

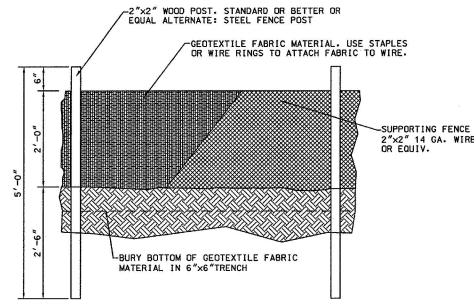
GENERAL NOTES

- THE SOIL RETENTION BLANKET INSTALLATION DETAILS SHOWN FOR CULVERT PROTECTION SHALL BE USED FOR ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES UTILIZING SOIL RETENTION BLANKETS UNLESS OTHERWISE NOTED.
- ROCK PLATING USED IN THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THESE SHEETS SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES UNLESS OTHERWISE INDICATED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PLACED WITHIN THE CONSTRUCTION CLEAR ZONE SHALL BE INSTALLED WITH 8:1 SLOPES PARALLEL TO TRAFFIC AND 4:1 SLOPES PERPENDICULAR TO TRAFFIC.
- SEDIMENT TRAPS SHALL BE CLEANED OF ACCUMULATED SEDIMENT WHEN APPROXIMATELY SOLE FLEED.
- CHECK DAMS SHALL BE CLEANED OF ACCUMULATED SEDIMENT WHEN THE DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE CHECK DAM.
- CULVERT PROTECTIONS SHALL BE INSTALLED UPON INITIATION OF EARTH WORK ACTIVITIES AND MAINTAINED AS MUCH AS PRACTICAL UNTIL STABILIZATION IS COMPLETED AND ACCEPTED. CULVERT PROTECTIONS MAY BE REMOVED FOR PERIODS OF TIME AS REQUIRED DURING CONSTRUCTION TO COMPLETE ADJACENT IMPROVEMENTS.
- THE CONTRACTOR MAY CONSTRUCT AN EARTH DIKE AS SHOWN, OR RELOCATE THE CHECK DAMS AS CONSTRUCTION PROGRESSES. NO DIRECT PAYMENT SHALL BE MADE FOR RELOCATION OF THE CHECK DAMS.
- STRAW BALES ARE NOT INTENDED FOR USE ON NEW MEXICO DEPARTMENT OF TRANSPORTATION PROJECTS.

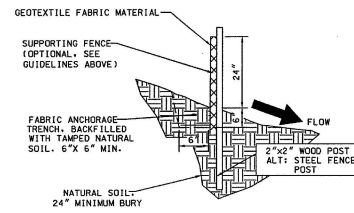
NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING TEMPORARY EROSION & SEDIMENT CONTROL MEASURES			
APPROVED: <i>[Signature]</i> PROJECT ENGINEER DATE: 11/21/09			
DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____			
603-01-1/7 SERIAL 1 OF 7			



TYPE II STRAW BALE OPTION



TYPE I SILT FENCE

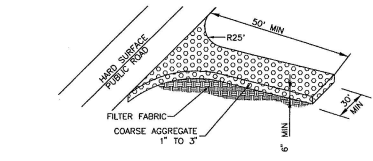
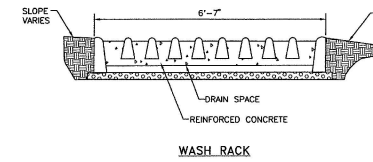
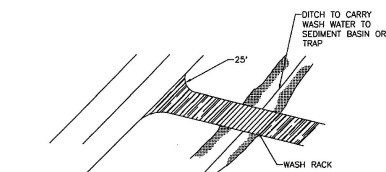


NOTES: SILT FENCE AND CHECK DAM

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE POST SPACING FOR SILT FENCES TO MINIMIZE MAINTENANCE.
- POST SPACING SHALL BE 4 FT. MAXIMUM WITHOUT SUPPORTING FENCE; 10 FT. MAXIMUM WITH SUPPORTING FENCE.
  - POSTS FOR 4 FT. MAXIMUM POST SPACING SHALL BE 2 INCH SQUARE NOMINAL SIZE OR HEAVIER WOOD POSTS, OR STANDARD "1" OR "1 1/2" SECTION STEEL POSTS WEIGHING NOT LESS THAN 2 LBS. PER LINEAR FOOT.
  - SUPPORTING FENCE SHALL BE WIRE MESH (14 GA. MIN., 1 INCH MAX. MESH OPENINGS), SNOW FENCE, PLASTIC FENCE OR APPROVED.
  - SUPPORTING FENCE SHALL BE FASTENED SECURELY TO POSTS WITH STAPLES OR WIRE TIES. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO SUPPORTING FENCE WITH WIRE TIES SPACED AT 2 FT. CENTERS ALONG THE TOP AND MID-SECTION. WHEN A SUPPORTING FENCE IS NOT USED, GEOTEXTILE FABRIC SHALL BE SECURELY FASTENED TO POSTS WITH STAPLES OR WIRE TIES.
  - WHEN SILT FENCE IS USED FOR CHECK DAMS INSTALLED IN DITCHES, A SUPPORTING FENCE SHALL BE PROVIDED, WITH MAXIMUM POST SPACING OF 10 FT.
  - STANDARD "1" OR "1 1/2" SECTION STEEL POSTS SHALL NOT BE USED WITHIN THE CONSTRUCTION CLEAR ZONE RECOVERY AREA.
  - STRAW BALES ARE NOT INTENDED FOR USE ON NEW MEXICO DEPARTMENT OF TRANSPORTATION PROJECTS.

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING TEMPORARY EROSION & SEDIMENT CONTROL MEASURES SILT FENCE			
APPROVED: <i>[Signature]</i> PROJECT ENGINEER DATE: 11/21/09			
DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____			
603-01-3/7			

3 T.E.S.C.M. OFFSITE TRACKING PREVENTION (NMDOT) SCALE: NTS



OFFSITE TRACKING PREVENTION

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS (OR CHANGE NOTICES)
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING T.E.S.C.M. OFFSITE TRACKING PREVENTION & DIVERSION DIKE			
APPROVED: <i>[Signature]</i> PROJECT ENGINEER DATE: 11/21/09			
DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____			
603-01-7/7 SHEET 7 OF 7			

1 T.E.S.C.M. NOTES (NMDOT) SCALE: NTS

2 T.E.S.C.M. SILT FENCE (NMDOT) SCALE: NTS



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FBPR Certificate of Authorization No.: 24



CLIENT  
LOS ALAMOS NATIONAL  
LABORATORY  
LOS ALAMOS, NM

PROJECT  
LOS ALAMOS NATIONAL  
LABORATORY  
GRADE CONTROL STRUCTURES

TASK  
S.W.P.P.P. DETAILS

ORIGINAL DATE: 08/24/09  
REVISIONS:  
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JOB NO. 100005632  
DATE 08/27/2009  
DESIGNED DTW  
PE RMP  
CHECKED IMT  
QC MS  
SHEET C-501

# OWNER'S REQUIREMENTS

# CONTRACTOR'S REQUIREMENTS

**SITE DESCRIPTION**

PROJECT NAME AND LOCATION:  
LOS ALAMOS SEDIMENT GRADE CONTROL STRUCTURES  
LOS ALAMOS, NEW MEXICO

SEE USACOE 404 PERMIT FOR ADDITIONAL INFORMATION

OWNER NAME AND ADDRESS:  
LOS ALAMOS NATIONAL LABORATORY  
P.O. BOX 1663  
LOS ALAMOS, NEW MEXICO 87545

DESCRIPTION:  
THIS PROJECT WILL CONSIST OF:  
THE CONSTRUCTION OF TWO GABION STORMWATER CONTROL STRUCTURES

SOIL DISTURBING ACTIVITIES WILL INCLUDE:  
CLEARING AND GRUBBING; INSTALLING A STABILIZED CONSTRUCTION ENTRANCE; PERIMETER AND OTHER EROSION AND SEDIMENT CONTROLS; GRADING; EXCAVATION FOR GABION INSTALLATION, AND BANK STABILIZATION IMPROVEMENTS.

RUNOFF COEFFICIENT:  
SEE USACOE 404 PERMIT FOR ADDITIONAL INFORMATION

SOILS:  
SEE USACOE 404 PERMIT FOR ADDITIONAL INFORMATION

SITE MAPS:  
\* SEE CONSTRUCTION PLANS

GRADES, AREAS OF SOILS, DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS:  
\* SEE CONSTRUCTION PLANS AND USACOE 404 PERMIT FOR ADDITIONAL INFORMATION

SITE AREA:  
1. TOTAL AREA OF SITE = SEE CONSTRUCTION PLANS  
2. TOTAL AREA TO BE DISTURBED = SEE CONSTRUCTION PLANS

SEE USACOE 404 PERMIT FOR ADDITIONAL INFORMATION

(1) A DRAINAGE REPORT MAY BE OBTAINED FROM PBS&J (SEE TITLE BLOCK FOR ADDRESS)

**CONTROLS**

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. THE CONSTRUCTION PLANS HAVE BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS AS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL STATE AND LOCAL LAWS. REFER TO "CONTRACTOR'S REQUIREMENTS" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

**STORM WATER MANAGEMENT**

DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE. WHERE PRACTICAL, ACCUMULATED SEDIMENT WILL BE REMOVED FROM CONSTRUCTION AREAS AND GRADED AS APPROPRIATE. WHEN UPSLOPE AREAS ARE STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED AND THE AREAS ON THE SIDE OF THE SLOPE WILL BE PLANTED WITH VEGETATION.

**TIMING OF CONTROL MEASURES**

REFER TO "CONTRACTOR'S REQUIREMENTS" FOR THE TIMING OF CONTROL MEASURES.

**CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS**

IN AN EFFORT TO ENSURE COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS REGARDING EROSION AND TURBIDITY CONTROLS, THE FOLLOWING PERMITS HAVE BEEN OBTAINED.

DOT DRAINAGE CONNECTION PERMIT	N/A
C.O.E. DREDGE/FILL PERMIT	N/A
USACOE 404 PERMIT	YES

**GENERAL**

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENT OUTLINED IN THIS NARRATIVE AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION, THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.

**SEQUENCE OF MAJOR ACTIVITIES:**

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.	10. INSTALL GABION CONTROL STRUCTURES
2. INSTALL SILT FENCES AND HAY BALES AS REQUIRED.	11. BACKFILL AND COMPACT.
3. CLEAR AND GRUB FOR DIVERSION SWALES.	12. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/SOD AND PLANTING.
4. CONSTRUCTION TEMPORARY STORMWATER REDIRECTION SWALES.	13. REMOVE ACCUMULATED SEDIMENT.
5. CONTINUE CLEARING AND GRUBBING.	14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED
6. STOCK PILE TOP SOIL IF REQUIRED.	
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED.	
8. STABILIZE DENOTED AREAS AND STOCKPILES AS SOON AS PRACTICABLE.	
9. DITCH BANK IMPROVEMENTS	

**TIMING OF CONTROLS/MEASURES**

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES, HAY BALES, AND STABILIZED CONSTRUCTION ENTRANCE WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL. IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE SEDIMENT AND EROSION CONTROL PLAN.

**CONTROLS**

IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN IN THE SEDIMENT AND EROSION CONTROL PLAN. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

**EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES**

1. STRAW BALE BARRIER: STRAW BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:

- WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
- IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
- WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS
- EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.

2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:

- WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
- IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.

3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.

4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT -FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL RECONCENTRATE AFTER UNDESE.

5. STOCKPIILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.

6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.

7. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 30 DAYS SHALL BE SEEDDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.

8. TEMPORARY GRASSING: THE SEEDDED OR SEEDED AND MULCHED AREA (S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.

10. TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.

11. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

12. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.

13. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AT MINIMUM, BE SEEDDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDDED AND MULCHED OR SODDED.

**STRUCTURAL PRACTICES**

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.

2. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASIN. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE. THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

**OTHER CONTROLS**

**WASTE DISPOSAL**

**WASTE MATERIALS**

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

**HAZARDOUS WASTE**

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SITE SUPERINTENDENT. THE INDIVIDUAL, WHO MANAGES DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

**SANITARY WASTE**

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

**OFFSITE VEHICLE TRACKING**

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEEP DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

**INVENTORY FOR POLLUTION PREVENTION PLAN**

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ON SITE DURING CONSTRUCTION:

CONCRETE	FERTILIZERS
TAR	PETROLEUM BASED PRODUCTS
DETERGENTS	CLEANING SOLVENTS
PAINTS	

**SPILL PREVENTION**

**MATERIAL MANAGEMENT PRACTICES**

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

**GOOD HOUSEKEEPING**

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

**HAZARDOUS PRODUCTS**

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND/OR STATE RECOMMENDED METHOD FOR PROPER DISPOSAL WILL BE FOLLOWED.

**PRODUCT SPECIFIC PRACTICES**

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

**PETROLEUM PRODUCTS**

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

**FERTILIZERS**

SEE LANDSCAPE SPECIFICATIONS.

**PAINTS**

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

**CONCRETE TRUCKS**

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

**SPILL CONTROL PRACTICES**

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (I.E. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILLS IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

**SPILL CONTROL PRACTICES**

**EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES**

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

- NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDE AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
- ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.
- ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
- BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE SEEDING CAPACITY OR AT THE END OF THE JOB.
- DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
- TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY AND INCIDENTS OF NON-COMPLIANCE.
- THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
- PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

**NON-STORM WATER DISCHARGES**

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

- WATER FROM WATER LINE FLUSHING.
- PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
- UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

**CONTRACTOR'S CERTIFICATION**

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIES AS PART OF THIS CERTIFICATION.


SIGNATURE	BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS	RESPONSIBLE FOR/DUTIES

**OWNER AND ENGINEER CERTIFICATION**

WE THE UNDERSIGNED ACKNOWLEDGE THE APPLICABILITY OF THIS SWPPP AS IT PERTAINS TO LOCAL, STATE AND FEDERAL RULES. ANY REQUIRED REVISIONS AND ADDITIONS NECESSARY FOR CONSTRUCTION MEANS AND METHODS WILL BE SUBMITTED TO THE AGENCIES.

OWNER \_\_\_\_\_

ENGINEER \_\_\_\_\_



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FBPR Certificate of Authorization No.: 24



CLIENT

LOS ALAMOS NATIONAL LABORATORY  
LOS ALAMOS, NM

PROJECT

LOS ALAMOS NATIONAL LABORATORY  
GRADE CONTROL STRUCTURES

TASK

STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) NARRATIVE

ORIGINAL DATE:	08/24/09	6
REVISIONS:		7
ISSUED FOR NMD		8
1. PERMITTING 08/28/2008		9
2.		10
3.		11
4.		12
5.		

JOB NO. 100005832  
DATE 08/27/2009  
DESIGNED DTW  
PE RMP  
CHECKED IMT  
QC MS  
SHEET C-502

User Name: 22190 Drawing Name: \\server1\commen\10005832 Los Alamos\shawn\c-502 - SWPPP\MS0809\c.dwg Aug 24, 2008 - 11:58am