# LAGO DEL VALLE DAM (TX 05979) IMPROVEMENT PROJECT CONSTRUCTION PLANS LAREDO, TEXAS

LAND OWNERS:

MEZQUITE LAND DEVELOPMENT, INC 5904 WEST DR., STE. 12, LAREDO, TEXAS 78041 ATTENTION: MR. GERARDO G. S. SALINAS, MANAGER MR. JUAN SALINAS, MANAGER

CUATRO INVESTMENTS, LLC. 13512 N. UNITEC LAREDO, TEXAS 78045 ATTENTION: MR. FRANCISCO NORIEGA, MANAGER

NORGUA ENTERPRISES LTD. 13512 N. UNITEC LAREDO, TEXAS 78045 ATTENTION: MR. FRANCISCO NORIEGA, MANAGER



PROJECT SPONSORS: WEBB COUNTY DRAINAGE DISTRICT LAREDO, TX. MS. MARGIE ARCE, PRESIDENT MS. SARA SANCHEZ, SECRETARY







# PERMIT NOTES

- 1. ALL ASSOCIATED PERMITS AND FEES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL APPLY FOR AND SECURE ALL PROPER PERMITS FROM THE 2. APPROPRIATE AUTHORITIES.
- THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT IF APPLICABLE.

# TESTING NOTES

- ALL TESTING REQUIRED BY THE PLANS, DETAILS, AND TECHNICAL SPECIFICATIONS, INCLUDING MATERIALS TESTING, SOIL DENSITY, SOIL ANALYSIS, CONCRETE TESTING SHALL BE PAID BY THE OWNER FOR THE FIRST TEST. ANY TESTS THAT FAIL SHALL BE RE-PERFORMED UNTIL MEETING PASSING REQUIREMENTS AT THE CONTRACTOR'S EXPENSE. TESTING FOR AIR & DEFLECTION TESTING FOR WASTEWATER LINES, AND HYDROSTATIC AND BACTERIOLOGICAL TESTING FOR WATER LINES, ARE TO BE COORDINATED WITH THE CITY INSPECTOR. COSTS ASSOCIATED WITH THESE TESTS ARE SUBSIDIARY TO THE BID ITEM IT REPRESENTS.
- CONTRACTOR SHALL COORDINATE PROJECT CONSTRUCTION TESTING WITH THE WCDD INSPECTOR. ALL FAILED TESTS 2. SHALL BE PAID FOR BY THE CONTRACTOR.
- CONTRACTOR SHALL NOTIFY TESTING LAB TWENTY FOUR (24) HOURS PRIOR TO BACKFILL OF ANY DRAINAGE TRENCH TO SCHEDULE FOR DENSITY TEST AS REQUIRED.

### **ENVIRONMENTAL NOTES**

- 1. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
- ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE REVEGETATED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS. REVEGETATION OF ALL DISTURBED OR EXPOSED AREAS SHALL CONSIST OF SODDING OR THE TYPE OF REVEGETATION MUST EQUAL OR EXCEED THE TYPE OF VEGETATION PRESENT BEFORE CONSTRUCTION. ALL VEGETATION OUTSIDE THE LIMIT OF CONSTRUCTION IN APPROVED PROJECT PLANS IS TO REMAIN. ANY VEGETATION DISTURBED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNLESS OTHERWISE SPECIFIED.
- 3. CONTRACTOR SHALL INSTALL STORM WATER POLLUTION PREVENTION CONTROLS PRIOR TO ANY SITE PREPARATION WORK (DEMOLITION, EXCAVATION, GRUBBING, ETC.)
- THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND / OR TRACKED CONSTRUCTION MATERIALS AND / OR DEBRIS. ALL MUD, DIRT, ROCKS, DEBRIS, ETC.., SPILLED, TRACKED OR OTHERWISE DEPOSITED ON EXISTING PAVED STREETS, DRIVES AND AREAS USED BY THE PUBLIC SHALL BE CLEANED UP IMMEDIATELY.
- PROPOSED SW3P TO BE INSTALLED DURING CONSTRUCTION AND SHALL BE IN ACCORDANCE WITH THE CITY OF LAREDO 5. STORMWATER MANAGEMENT ORDINANCE. ALL TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL FINAL INSPECTION AND APPROVAL OF THE PROJECT BY THE ENGINEER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL TEMPORARY EROSION CONTROL STRUCTURES AND TO REMOVE EACH STRUCTURE AS APPROVED BY THE ENGINEER.
- ALL SLOPES SHALL BE SODDED OR SEEDED WITH APPROVED GRASS, GRASS MIXTURES OR GROUND COVER SUITABLE TO THE AREA AND SEASON IN WHICH THEY ARE APPLIED.
- 7. CONTRACTOR TO IMPLEMENT EROSION MEASURES IDENTIFIED ON THIS PLAN AS PART OF THE BID.
- THE CONTRACTOR SHALL PROTECT ALL AREAS OF THE RIGHT-OF-WAY WHICH ARE NOT INCLUDED IN THE ACTUAL LIMITS OF THE PROPOSED CONSTRUCTION AREAS FROM DAMAGE. CARE SHALL BE EXERCISED TO PREVENT DAMAGE TO TREES, VEGETATION AMD OTHER NATURAL SURROUNDING. THE CONTRACTOR, AT HIS EXPENSE, SHALL RESTORE TO ANY AREAS DISTURBED AS A RESULT OF HIS OPERATIONS TO A CONDITION AS GOOD AS, OR BETTER THAN, THAT PRESENT PRIOR TO HIS CONTRACT. EXISTING STREET SIGNS SHALL RESET AS REQUIRE. NO SEPARATE PAYMENT.
- STRICT ADHERENCE TO DUST CONTROL WILL BE REQUIRED IN ALL AREAS, WHICH MAY REQUIRE PERIODIC MOISTURE 9. TREATMENT OF THE SUB-GRADE BY THE CONTRACTOR. THERE WILL BE NO SEPARATE PAY ITEM FOR SUCH MEASURES, WHICH WILL BE CONSIDERED SUBSIDIARY TO VARIOUS BID ITEMS INVOLVED.
- 12. CONTRACTOR TO PROTECT EXISTING DRAINAGE INLETS AND PREVENT SILT AND EXCESS CONCRETE FROM ENTERING DRAINAGE SYSTEM.

# TRENCH EXCAVATION PROTECTION

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO DEVELOP THE CONTRACTOR'S PLANS TO IMPLEMENT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S PLANS SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY SYSTEMS THAT COMPLY WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL DEVELOP AND IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

IMPORTANT PHONE NUMBERS ONE-CALL BOARD OF TEXAS Administration : (512) 477-2255 Location Requests 1-800-545-6005

- TEXAS EXCAVATION SAFETY SYSTEM 1-800-DIG-TESS 1-800-690-1291 FAX
- LONE STAR NOTIFICATION 1-800-669-8344
- 1-800-999-2344 FAX
- TEXAS ONE-CALL 1-800-245-4545
- 1-800-217-3720 FAX

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UTILITY COORDINATION CONTACT LIST			
Company/ Department	Name	E-mail Address	Phone #
City UCC Manager	Roland Lozano	rlozano1@ci.laredo.tx.us	(956) 794-1642
City Utilites Dept.	Diego A. Salinas	dasalinas@ci.laredo.tx.us	
City Traffic Dept.	James M. Deliganis, Jr.	jdeliganis@ci.laredo.tx.us	
City Fire Dept.	Victor A Vidaurri	vvidaurri@ci.laredo.tx.us	(956) 718-6072
City Enviromental Dept.	Juan M. Vazquez	jvazquez1@ci.laredo.tx.us	(956) 794-1650
AEP	Jose Cuellar	jacuellar@aep.com	(956) 436-1090
AT&T	Arturo Guerrero	ag4723@att.com	(956) 286-8929
Alenco	Jerry Soto		(956) 286-8738
Alenco	Mark Elrod		Office: (817) 447-0127 Direct (817)484-2652
CenterPoint	Mario Salinas	mario.salinas@centerpointenergy.com	
FiberLight	Aaron Ferdin	aaron.ferdin@fiberlight.com	
FiberLight	Pablo Gonzalez	Pablo.Gonzales@fiberlight.com	
Medina Electric	Oscar Chapa	oscarc@medinaec.org	
Smartcom Telephone	Daniel Chapa	dchapa@smartcomtelephone.com	
	Alejandro	ralejandro@smartcomtelephone.com	
TxDOT	Reynaldo Garza	Reynaldo.Garza@txdot.gov	
Webb County	Mario Santos	Msantos@webbcountytx.gov	

# **GENERAL NOTES**

- FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION".
- ALL CULVERTS REMOVED FOR CONSTRUCTION SHALL BE REPLACED TO ORIGINAL GRADE. ROAD DITCH SHALL BE GRADED TO PROVIDE FOR AN EVEN GRADE AND SECTION BETWEEN EXISTING CULVERTS. ALL CULVERTS SHALL BE CLEAN AND FREE OF DEBRIS DURING AND AFTER CONSTRUCTION.
- NO DRIVEWAY OR STREET SHALL BE CLOSED OVERNIGHT. CONTRACTOR SHALL REPAIR ALL STREET CROSSINGS, 3. DRIVEWAYS AND DITCHES TO THEIR ORIGINAL CONDITION OR BETTER. STREET CROSSINGS SHALL BE REPAIRED WITHIN 10 WORKING DAYS AFTER CROSSING IS MADE.
- 4. ACQUISITION OF RIGHT OF WAY AND/OR EASEMENTS IS THE RESPONSIBILITY OF OWNER.
- ALL MATERIALS, EQUIPMENT, STAGING, AND TEMPORARY SPOILS STORAGE IS TO BE WITHIN THE LIMITS OF CONSTRUCTION SHOWN ON THE APPROVED PLANS. ANY AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHOWN PROPOSED FOR THESE ACTIVITIES MUST BE REVIEWED AND APPROVED (BY OWNER) PRIOR TO USE. ARE TO BE MAINTAINED DURING CONSTRUCTION
- FUEL STORAGE IS NOT ALLOWED. THE CONTRACTOR SHALL ADVISE THE OWNER IMMEDIATELY WITH WRITTEN DOCUMENTATION, OF ANY SPILLING OF FUEL OR TOXIC MATERIAL, INCLUDING ACTIONS TO CONTAIN AND CLEAN UP.
- ANY ADDITIONAL AREAS REQUIRED FOR CONSTRUCTION OF THIS PROJECT SHALL BE THE SOLE RESPONSIBILITY OF THE 7. CONTRACTOR AND SHALL BE SECURED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR MUST SECURE OWNER APPROVAL OF PROPOSED ADDITIONAL AREAS PRIOR TO USE.
- CONTRACTOR IS RESPONSIBLE FOR DEWATERING OF WORK AREA. CONTRACTOR MUST SECURE CITY OF LAREDO 8. APPROVAL OF PROPOSED DEWATERING PROCEDURES PRIOR TO INSTALLATION OR USE, AND SHALL PROVIDE AND MAINTAIN ADEQUATE EQUIPMENT TO REMOVE AND DISPOSE OF ALL SURFACE AND GROUND WATER ENTERING EXCAVATIONS, TRENCHES, OR OTHER PARTS OF THE WORK.
- 9. ALL WASTE MATERIAL EXCEPT FOR EXCESS SOIL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE.9.
- 10. THE CONTRACTOR'S RESPONSIBILITY IS TO ADHERE TO SPECIFICATIONS-DIVISION "C", GENERAL PROVISIONS PARAGRAPH C-7.08 "PROTECTION AND RESTORATION OF PROPERTY" AND PARAGRAPH C-7.09 "PROTECTION OF EXISTING UTILITIES".
- 11. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY ITEM TO WHICH IT RELATES. ALL BID ITEMS WILL BE PAID WHEN COMPLETED IN PLACE, TESTED AND ACCEPTED.
- 12. CONSTRUCTION STAKING WILL BE PROVIDED BY THE ENGINEER; CONTRACTOR TO PROVIDE ENGINEER WITH CUT SHEETS AND STAKING FILE FOR REVIEW AND COORDINATION WITH CITY OF LAREDO INSPECTION DIVISION.
- 13. ALL CONSTRUCTION SHALL BE IN COMPLIANCE TO CITY OF LAREDO CODES AND ORDINANCES FOR STANDARD CONSTRUCTION JUNE 2008, OR LATEST.
- 14. CONTRACTOR RESPONSIBLE FOR DAMAGES TO ANY EXISTING SITE CONDITION PROGRAMMED TO BE PRESERVED, AND SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE SUSTAINED TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING, CURBS, SHRUBS, BUSHES, OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
- 15. THE CONTRACTOR SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS AND PROVIDE ENGINEER WITH RED LINED SET OF AS BUILT DRAWINGS SHALL MEET WITH THE SATISFACTION OF THE ENGINEERING AND DEVELOPMENT SERVICES DEPARTMENT PRIOR TO FINAL ACCEPTANCE.
- 16. WHERE REQUIRED BY FIXED FEATURES OR UNUSUAL CONDITIONS, THE SLOPES INDICATED HEREON MAY BE VARIED WHEN SPECIFICALLY DIRECTED BY THE ENGINEER.
- QUANTITIES SHOWN HEREON ARE PROVIDED FOR THE CONVENIENCE AND BENEFIT OF THE CONTRACTOR AND OTHER INTERESTED PARTIES. THE ENGINEER ASSUMES NO LIABILITY FOR THE ACCURACY AND COMPLETENESS OF SAID QUANTITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK PLANS AND SPECIFICATIONS IN DETAIL IN THE PREPARATION OF HIS BID
- 18. CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 19. PROVIDE SUBMITTALS FOR ALL MATERIALS INCLUDING EXPANSION & JOINT SEALANT.

### DRAINAGE NOTES

- 1. ALL R.C.P. SHALL BE A MINIMUM CLASS III.
- 2. ALL STORM WATER PIPE SHALL BE BID FOR INSTALLATION IN PLACE TO INCLUDE TRENCHING, PIPE INSTALLATION AND BACKFILL.
- CONTRACTOR TO PROVIDE PRICE PER CY FOR PROVIDING AND INSTALLING 57 STONE; THIS MATERIAL TO BE USED FOR 3. DRAINAGE PIPE BEDDING, PRIMARY BACKFILL, AND OTHER USES TO STABILIZE SITE CONDITIONS AS NEEDED. FINAL QUANTITIES AND PAYMENT TO BE BASED ON FINAL AS BUILT QUANTITIES.

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ltem		Estimated		
#	Description	Quantity	Unit	Details
1	Clearing and Grubbing	2	AC	N/A
2	Pond / Berm Cut (Compacted Measure)	5,500	CY	N/A
3	Pond / Berm Fill (Compacted Measure)	2,120	CY	N/A
4	48" Diameter HDPE	414	LF	13
5	4" Concrete Slab for Spillway Structure	20,680	SF	13
6	Rock Lined Channel with Concrete Slurry	3,105	SF	15
7	Stilling Basin / Filtration Pond (Typ.)	85	SY	12
8	7" 3,000 PSI Concrete Pavement	1,635	SF	13
9	Saw Cut existing Curb & Gutter	17	LF	N/A
10	Remove / Dispose Existing 5' Slotted Inlet Top	1	EA	N/A
11	Remove / Dispose Existing 4' wide Sidewalk	45	SF	N/A
12	8" Flexible Base Type B Grade 1-2	80	SY	N/A
13	Traffic Rated Grate Inlet Top for Existing 5' Slotted Inlet	1	EA	N/A
14	Vehicle Swinging Access Gate with 3' Pedestrian Opening	1	EA	12
Addit	ive Alternate #1			
ltem		Estimated		
#	Description	Quantity	Unit	Details
Demo	blition and Detention Pond / Berm Grading	<b>j</b>		
15	Remove / Dispose Existing Vegetation	2 30	AC	N/A
16	Selective Demolition / Tree Trimming	3.40		Ν/Δ
17	Pond / Berm Cut (Compacted Measure)	27 505		N/A
18	Pond / Borm Fill (Compacted Measure)	10 650		Ν/Δ
10	Remove / Dispose Existing Headwall (24" Pine)	10,000		Ν/Δ
20	Remove / Dispose Existing 24" RCP	36		N/A
20 Remove / Dispose Existing 24" RCP 36 Li				
510111	North American Croon V/MAX D550 Eracian Control Blanket			Details
24	with Ludra mulah	6.025	CV	45
21	Deals Dealding	6,925	ST	15
22	ROCK Beading	290		10
23		1,180		16
24	ROCK Gravel Fliter Berm	3	EA	15
25	Stabilized Construction Entrance	1	EA	01
20		1	EA	10
Storn	n wanagement improvements			
27	4' x 4' Junction Box	1	EA	10A
28	4' x 4' Junction Box with Grate Inlet Top	1	EA	10A
29	24" Diameter HDPE	88		13
30	30" Diameter HDPE	100	LF	13
31	Rock Safety End Treatment	2	EA	11
A .I .I.4				
Addit	IVE AITEMATE #2 - 57 STONE			
Ito rec				
ltem	Description	Estimated	11.2	<b>.</b>
ltem #	Description	Quantity	Unit	Details

I. Base Bid - Concrete Spillway and Maintenance Access Road Improvements						
ltem		Estimated				
#	Description	Quantity	Unit	Details		
1	Clearing and Grubbing	2	AC	N/A		
2	Pond / Berm Cut (Compacted Measure)	5,500	CY	N/A		
3	Pond / Berm Fill (Compacted Measure)	2,120	CY	N/A		
4	48" Diameter HDPE	414	LF	13		
5	4" Concrete Slab for Spillway Structure	20,680	SF	13		
6	Rock Lined Channel with Concrete Slurry	3,105	SF	15		
7	Stilling Basin / Filtration Pond (Typ.)	85	SY	12		
8	7" 3,000 PSI Concrete Pavement	1,635	SF	13		
9	Saw Cut existing Curb & Gutter	17	LF	N/A		
10	Remove / Dispose Existing 5' Slotted Inlet Top	1	EA	N/A		
11	Remove / Dispose Existing 4' wide Sidewalk	45	SF	N/A		
12	8" Flexible Base Type B Grade 1-2	80	SY	N/A		
13	Traffic Rated Grate Inlet Top for Existing 5' Slotted Inlet	1	EA	N/A		
14	Vehicle Swinging Access Gate with 3' Pedestrian Opening	1	EA	12		
Addit	ive Alternate #1					
ltem		Estimated				
#	Description	Quantity	Unit	Details		
Demolition and Detention Pond / Berm Grading						
15	Remove / Dispose Existing Vegetation	2.30	AC	N/A		
16	Selective Demolition / Tree Trimming	3.40	AC	N/A		
17	Pond / Berm Cut (Compacted Measure)	27,505	CY	N/A		
<mark>1</mark> 8	Pond / Berm Fill (Compacted Measure)	10,650	CY	N/A		
19	Remove / Dispose Existing Headwall (24" Pipe)	2	EA	N/A		
20	Remove / Dispose Existing 24" RCP	36	LF	N/A		
Stormwater Pollution Prevention Plan (SW3P) Detail						
	North American Green VMAX P550 Erosion Control Blanket					
21	with Hydromulch	6,925	SY	15		
22	Rock Bedding	290	CY	16		
23	Silt Fence	1,180	LF	16		
24	Rock Gravel Filter Berm	3	EA	15		
25	Stabilized Construction Entrance	1	EA	16		
26	Concrete Wash Pit	1	EA	16		
Storm Management Improvements						
Storn	n Management Improvements					
Storn 27	<b>Management Improvements</b> 4' x 4' Junction Box	1	EA	10A		
<b>Storm</b> 27 28	A Management Improvements 4' x 4' Junction Box 4' x 4' Junction Box with Grate Inlet Top	1	EA EA	10A 10A		
<b>Storm</b> 27 28 29	A Management Improvements 4' x 4' Junction Box 4' x 4' Junction Box with Grate Inlet Top 24" Diameter HDPE	1 1 88	EA EA LF	10A 10A 13		
<b>Storm</b> 27 28 29 30	Management Improvements 4' x 4' Junction Box 4' x 4' Junction Box with Grate Inlet Top 24" Diameter HDPE 30" Diameter HDPE	1 1 88 100	EA EA LF LF	10A 10A 13 13		
<b>Storm</b> 27 28 29 30 31	A Management Improvements 4' x 4' Junction Box 4' x 4' Junction Box with Grate Inlet Top 24" Diameter HDPE 30" Diameter HDPE Rock Safety End Treatment	1 1 88 100 2	EA EA LF LF EA	10A 10A 13 13 11		
<b>Storm</b> 27 28 29 30 31	A Management Improvements 4' x 4' Junction Box 4' x 4' Junction Box with Grate Inlet Top 24" Diameter HDPE 30" Diameter HDPE Rock Safety End Treatment	1 1 88 100 2	EA EA LF LF EA	10A 10A 13 13 11		
<b>Storm</b> 27 28 29 30 31 <b>Addit</b>	A Management Improvements 4' x 4' Junction Box 4' x 4' Junction Box with Grate Inlet Top 24" Diameter HDPE 30" Diameter HDPE Rock Safety End Treatment ive Alternate #2 - 57 Stone	1 1 88 100 2	EA EA LF LF EA	10A 10A 13 13 11		
Storm           27           28           29           30           31           Addit           Item	Management Improvements         4' x 4' Junction Box         4' x 4' Junction Box with Grate Inlet Top         24" Diameter HDPE         30" Diameter HDPE         Rock Safety End Treatment         ive Alternate #2 - 57 Stone	1 1 88 100 2 Estimated	EA EA LF LF EA	10A 10A 13 13 11		
Storm 27 28 29 30 31 Addit Item #	A' x 4' Junction Box 4' x 4' Junction Box with Grate Inlet Top 24" Diameter HDPE 30" Diameter HDPE Rock Safety End Treatment ive Alternate #2 - 57 Stone Description	1 1 88 100 2 Estimated Quantity	EA EA LF LF EA	10A 10A 13 13 11 Details		
Storm 27 28 29 30 31 Addit Item # 32	4' x 4' Junction Box 4' x 4' Junction Box with Grate Inlet Top 24" Diameter HDPE 30" Diameter HDPE Rock Safety End Treatment ive Alternate #2 - 57 Stone 6" Layer of 57 Stone to address water table, if encountered	1 1 88 100 2 <b>Estimated</b> Quantity 525	EA EA LF EA Unit CY	10A 10A 13 13 11 Details N/A		

		iproveniento	_			
ltem		Estimated				
#	Description	Quantity	Unit	Details		
1	Clearing and Grubbing	2	AC	N/A		
2	Pond / Berm Cut (Compacted Measure)	5,500	CY	N/A		
3	Pond / Berm Fill (Compacted Measure)	2,120	CY	N/A		
4	48" Diameter HDPE	414	LF	13		
5	4" Concrete Slab for Spillway Structure	20,680	SF	13		
6	Rock Lined Channel with Concrete Slurry	3,105	SF	15		
7	Stilling Basin / Filtration Pond (Typ.)	85	SY	12		
8	7" 3,000 PSI Concrete Pavement	1,635	SF	13		
9	Saw Cut existing Curb & Gutter	17	LF	N/A		
10	Remove / Dispose Existing 5' Slotted Inlet Top	1	EA	N/A		
11	Remove / Dispose Existing 4' wide Sidewalk	45	SF	N/A		
12	8" Flexible Base Type B Grade 1-2	80	SY	N/A		
13	Traffic Rated Grate Inlet Top for Existing 5' Slotted Inlet	1	EA	N/A		
14	Vehicle Swinging Access Gate with 3' Pedestrian Opening	1	EA	12		
Addit	ive Alternate #1					
ltem		Estimated				
#	Description	Quantity	Unit	Details		
Demo	plition and Detention Pond / Berm Grading					
15	Remove / Dispose Existing Vegetation	2.30	AC	N/A		
16	Selective Demolition / Tree Trimming	3.40	AC	N/A		
17	Pond / Berm Cut (Compacted Measure)	27,505	CY	N/A		
18	Pond / Berm Fill (Compacted Measure)	10,650	CY	N/A		
19	Remove / Dispose Existing Headwall (24" Pipe)	2	EA	N/A		
20	Remove / Dispose Existing 24" RCP	36	LF	N/A		
Storn	Stormwater Pollution Prevention Plan (SW3P) Detail					
	North American Green VMAX P550 Erosion Control Blanket					
21	with Hydromulch	6,925	SY	15		
22	Rock Bedding	290	CY	16		
23	Silt Fence	1,180	LF	16		
24	Rock Gravel Filter Berm	3	EA	15		
25	Stabilized Construction Entrance	1	EA	16		
26	Concrete Wash Pit	1	EA	16		
Storm Management Improvements						
27	4' x 4' Junction Box	1	EA	10A		
28	4' x 4' Junction Box with Grate Inlet Top	1	EA	10A		
29	24" Diameter HDPE	88	LF	13		
30	30" Diameter HDPE	100	LF	13		
31	Rock Safety End Treatment	2	EA	11		
Addit	ive Alternate #2 - 57 Stone					
-		Estimated				
ltem		Estimated				
ltem #	Description	Quantity	Unit	Details		

ltem		Estimated		
#	Description	Quantity	Unit	Details
1	Clearing and Grubbing	2	AC	N/A
2	Pond / Berm Cut (Compacted Measure)	5,500	CY	N/A
3	Pond / Berm Fill (Compacted Measure)	2,120	CY	N/A
4	48" Diameter HDPE	414	LF	13
5	4" Concrete Slab for Spillway Structure	20,680	SF	13
6	Rock Lined Channel with Concrete Slurry	3,105	SF	15
7	Stilling Basin / Filtration Pond (Typ.)	85	SY	12
8	7" 3,000 PSI Concrete Pavement	1,635	SF	13
9	Saw Cut existing Curb & Gutter	17	LF	N/A
10	Remove / Dispose Existing 5' Slotted Inlet Top	1	EA	N/A
11	Remove / Dispose Existing 4' wide Sidewalk	45	SF	N/A
12	8" Flexible Base Type B Grade 1-2	80	SY	N/A
13	Traffic Rated Grate Inlet Top for Existing 5' Slotted Inlet	1	EA	N/A
14	Vehicle Swinging Access Gate with 3' Pedestrian Opening	1	EA	12
\ddit	ive Alternate #1			
ltem		Estimated		
#	Description	Quantity	Unit	Details
Demo	lition and Detention Pond / Berm Grading			
15	Remove / Dispose Existing Vegetation	2.30	AC	N/A
16	Selective Demolition / Tree Trimming	3.40	AC	N/A
17	Pond / Berm Cut (Compacted Measure)	27,505	CY	N/A
18	Pond / Berm Fill (Compacted Measure)	10,650	CY	N/A
19	Remove / Dispose Existing Headwall (24" Pipe)	2	EA	N/A
20	Remove / Dispose Existing 24" RCP	36	LF	N/A
Storn	water Pollution Prevention Plan (SW3P)			Details
	North American Green VMAX P550 Erosion Control Blanket			
21	with Hydromulch	6,925	SY	15
22	Rock Bedding	290	CY	16
23	Silt Fence	1,180	LF	16
24	Rock Gravel Filter Berm	3	EA	15
25	Stabilized Construction Entrance	1	EA	16
26	Concrete Wash Pit	1	EA	16
Storn	Management Improvements			
27	4' x 4' Junction Box	1	EA	10A
	4' x 4' Junction Box with Grate Inlet Top	1	EA	10A
28	24" Diamotor UDDE	88	LF	13
28 29				40
28 29 30	30" Diameter HDPE	100	LF	13
28 29 30 31	30" Diameter HDPE Rock Safety End Treatment	100 2	LF EA	13 11
28 29 30 31	30" Diameter HDPE Rock Safety End Treatment	100 2	LF EA	13 11
28 29 30 31 Addit	30" Diameter HDPE Rock Safety End Treatment ive Alternate #2 - 57 Stone	100 2	LF EA	13 11
28 29 30 31 Addit	30" Diameter HDPE Rock Safety End Treatment ive Alternate #2 - 57 Stone	100 2 Estimated	LF EA	13 11
28 29 30 31 Addit Item #	30" Diameter HDPE Rock Safety End Treatment ive Alternate #2 - 57 Stone Description	100 2 Estimated Quantity	LF EA Unit	13 11 Details

- REPAIR TO ANY DISTURBED AREAS DUE TO HAULING.
- PROJECT

1. ROCK TO BE PROVIDED BY LANDOWNER; CONTRACTOR RESPONSIBLE FOR HAULING, SW3P, AND

CONTRACTOR TO COORDINATE WITH ENGINEER ON POSSIBLE REUSE OF RCP PIPE REMOVED FROM

GENERAL NOTES  $\star$ ALFREDO MARTINEZ 123303 12-17-24 Revision/Issue Date FIRM NAME AND ADDRESS CRANE ENGINEERING CORP. 1310 JUNCTION DRIVE SUITE B LAREDO, TX 78041 956-712-1996 FIRM REGISTRATION NO. F-3353 Project Name and Address LAGO DEL VALLE DAM (TX 05979) **IMPROVEMENT PROJECT** GENERAL NOTES & B.O.E. 12/17/2024 **2A** Scale As Noted

![](_page_3_Figure_0.jpeg)

![](_page_4_Figure_0.jpeg)

![](_page_5_Figure_0.jpeg)

![](_page_6_Figure_0.jpeg)

![](_page_6_Figure_1.jpeg)

![](_page_6_Figure_2.jpeg)

![](_page_6_Figure_4.jpeg)

![](_page_7_Figure_0.jpeg)

![](_page_8_Figure_0.jpeg)

![](_page_8_Figure_1.jpeg)

![](_page_8_Figure_2.jpeg)

![](_page_8_Figure_4.jpeg)

![](_page_8_Figure_5.jpeg)

![](_page_9_Figure_0.jpeg)

1.	REMOVE EXIS
	FEET ON EITH

![](_page_9_Figure_5.jpeg)

![](_page_9_Figure_6.jpeg)

![](_page_10_Figure_0.jpeg)

![](_page_11_Figure_0.jpeg)

![](_page_12_Figure_0.jpeg)

![](_page_13_Figure_0.jpeg)

![](_page_14_Figure_0.jpeg)

![](_page_15_Figure_0.jpeg)

![](_page_16_Figure_0.jpeg)

![](_page_17_Figure_0.jpeg)

![](_page_17_Figure_1.jpeg)

![](_page_17_Figure_2.jpeg)

![](_page_17_Figure_3.jpeg)

![](_page_17_Picture_4.jpeg)

### CONSTRUCTION SPECIFICATIONS FOR SILT FENCE

### SILT FENCE

### A. MATERIAL REQUIREMENTS.

1. Fabric Fabric may be manufactured from polyester, polypropylene, or polyamide and shall be resistant to ultraviolet degradation, mildew, and rot and shall be suitable for use in a wet soil and stagnant water environment The edges of woven fabric shall be sealed or salvaged to prevent raveling. Fabric shall be at least thirty-six (36) wide with six (6) to eight (8) inches of the width buried in a trench to prevent undercutting, unless specified otherwise on the plans. The fabric shall exhibit the following physical properties when sampled and tested using the specified methods.

Physical Property	Test Method	Silt Fence
1. Tensile Strength, lb	ASTM D 4632	90 Min
2. Elongation @ yield, %	ASTM D 4632	100 Min
3. Trapezoidal Tear, lb	ASTM D 4533	35 Min
4. Apparent Opening Size	ASTM D 4751	50-80 Min
5. Permittivity, sec <sup>1</sup>	ASTM D 4491	1 Min
6. Ultraviolet Stability Original tensile strength retained after 500 hours exposure, %	ASTM D 4355	80 Min

2. Silt Fence, This system consists of fence post, spaced no more than 8.5 feet apart, and fabric with an attached reinforcing net. Fence posts shall be a minimum of forty (42) inches long embedded at least one (1) foot, and constructed of either wood or steel. Soft wood posts shall be at least three (3) inches in diameter or nominal two inch (2") by four inch (4") and essentially straight. Hardwood posts shall be a minimum of 1.5" x 1.5" Net reinforcement shall be a galvanized welded wire mesh of at least 12.5 gauge wire with maximum opening size of 4 in. The fabric shall be attached to the top of the net by crimping or cord at least every two (2) feet, or as otherwise specified.

3. CERTIFICATION AND IDENTIFICATION. Each lot or shipment shall be accompanied by a certification of conformance to this specification. The shipment must be identified by a ticket or labels securely affixed to the fabric rolls. This ticket or label must list the following information:

a. Name of manufacturer or supplier b. Brand name and style

- c. Manufacturer's lot number or control number
- d. Roll width in inches e. Roll length in yards
- **B. INSTALLATION**
- 1. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 15" AND A MAXIMUM OF 18" ABOVE FINAL GRADE. 2. STANDARD STRENGTH SYNTHETIC FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLE AND CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS (AND THUS IMPROVE
- THE BARRIER'S STRENGTH AND EFFICIENCY).
- 3. A TRENCH SHALL BE EXCAVATED APPROX. 6" WIDE AND 6" DEEP ALONG THE LINE OF STAKES AND UPSLOPE FROM THE BARRIER 4. THE SILT FENCE SHALL BE STAPLED TO THE STAKES, WITH 8' (MIN.) OF FABRIC EXTENDED INTO THE TRENCH. HEAVY DUTY WIRE STAPLES AT LEAST ONE-HALF INCH LONG SHALL BE USED. THE
- FENCE SHALL NOT BE STAPLED TO THE EXISTING TREES. 5. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FENCE MATERIAL.
- 6. IF A SILT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE WITH THE ENDS ORIENTED UPSLOPE.
- 7. SILT FENCE SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- C. MAINTENANCE 1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER RAINFALL. AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 2. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE SILT FENCE IS STILL NECESSARY, IT SHALL BE REPLACED IMMEDIATELY
- 3. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROX. 1/3 THE HEIGHT OF THE FENCE
- 4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
- 5. THERE SHOULD BE NO GAP OR SAGS IN THE SILT FENCE NOTES:
- 1. THE STABILIZED CONSTRUCTION ENTRANCE (S.C.E.) IS DESIGNED FOR VEHICLES EXITING THE AREA DURING THE CONSTRUCTION PERIOD: IT SHALL BE PROVIDED WASH DOWN WATER TO FACILITATE TIRE CLEANING WHEN NEEDED. ITS INTENDED PURPOSE IS TO PREVENT SEDIMENT FROM BEING TRACKED OFF SITE. IT WILL REQUIRE PERIODIC MAINTENANCE AND SHOULD BE USED BY ALL VEHICLES EXITING THE SITE PRIOR TO PAVED ROAD COMPLETION.
- 2. INSTALLATION OF SEDIMENT CONTROL AND POLLUTION PREVENTION FEATURES TO BE ACCOMPLISHED PRIOR TO BEGINNING ANY UPGRADE CONSTRUCTION ACTIVITY.
- 3. CONTRACTORS SHALL INSTALL SILT FENCING OR HAY/STRAW BALE FENCE AS NEEDED TO CONTROL EROSION ALONG CURB CUTS AND OTHER UNSTABILIZED CONSTRUCTION AREAS IN ADDITION TO DESIGNATED PERIMETER CONTROLS.
- 4. INLET PROTECTION (I.P.): CONTRACTORS WILL PROVIDE INLET PROTECTION FOR STORM DRAINS. (SEE FOR TYPICAL DETAILS.)
- 5. S.W.P.P.P. DRAWINGS AND DOCUMENTS MUST BE RETAINED IN CONTRACTOR'S OFFICE ON SITE.
- 6. REFER TO PROJECT S.W.P.P.P. DOCUMENT FOR WRITTEN INSPECTION REPORTS AND ADDITIONAL PLAN INFORMATION.
- 7. THE GENERAL PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM CONSTRUCTION ACTIVITIES REQUIRES THAT A NOTICE OF INTENT (N.O.I.) BE SUBMITTED AT CONSTRUCTION NOTES FOR ROCK BERM:
- 1. USE ONLY OPEN GRADED ROCK OF BROKEN CONCRETE 4-8 INCHES IN DIAMETER FOR STREAMFLOW CONDITIONS: USE OPEN GRADED ROCK OR BROKEN CONCRETE 3-5 INCHES IN DIAMETER FOR OTHER CONDITIONS
- 2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OF 1-INCH OPENING AND A MINIMUM WIRE DIAMETER OF 20 GAUGE.
- 3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN WIRE SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED. DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
- 4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS. THE SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE AND IN A MANNER AS TO NOT CREATE A SILTATION PROBLEM.
- 5. WHEN THE SITE IS COMPLETELY STABILIZED. THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

- STORM WATER POLLUTION PREVENTION PLAN

- \* OBSERVED CONDITIONS
- \* CHANGES NECESSARY TO THE S.W.P.P.P.

- EFFECT ON THE POTENTIAL FOR DISCHARGE OF POLLUTANTS

- REMOVED AT AN APPROPRIATE TIME.
- OF 70% OR EQUIVALENT MEASURES HAVE BEEN EMPLOYED

- OR BERMS AROUND FUEL STORAGE AREAS. NO SEPARATE PAY.
- REMEDY THE PROBLEM.
- THAT MEETS OR EXCEEDS 0.5 INCHES/24 HOURS PERIOD.
- SOLVENTS, FERTILIZERS, AND OTHER POTENTIALLY TOXIC MATERIALS.
- FACILITIES.
- OF ALL DEBRIS FOR DESIGNATED CONCRETE WASH-OUT SITE.
- MUST BE CLEANED WITHIN 24 HOURS OF WHEN THE TRACKING OCCURS.
- IS ACCEPTED BY THE OWNER.
- HIS OPTION, NO EXTRA PAY.

### STABILIZED ENTRANCE GENERAL NOTES:

- SEDIMENT TRAP MUST BE PROVIDED FOR THE TRUCK WASHING AREA.

![](_page_18_Figure_77.jpeg)

![](_page_18_Figure_78.jpeg)